CHAPTER IV

RESEARCH FINDING AND DISCUSSION

In this chapter, the data are presented and analyzed based on what the researcher obtains from the experiment conducts at the Second Grade of SMPN 2 Surabaya. To measure the data, t-test formula is applied to calculate the result of pretest and posttest from experimental and control group.

A. Result

Silent Way is used to improve the student speaking ability in learning process. This study is conducted to find out whether there is difference between the students who are taught using Silent Way and this is taught without using Silent Way. The researcher uses quasi-experimental which two groups as the subject of the study. The groups are the experimental and control group. The classes which are the subject as the experimental groups are VIII-G and VIII-H, as the control group. Each of groups consists of 38 students as the sample of this study. The researcher gives pretest and posttest for both experimental and control groups. The topic of the pretest and the posttest is about the uses of imperative sentences and preposition of location in daily activities. The task is they are answering the sentence that the researcher said by gestures.

In this study, the researcher analyzes the data collects from the observation and the result of the students' score of pretest and posttest from both experimental and control group. The scoring process is conducted by the researcher and accompanied by the teacher as the observer during teaching and learning process.

This study is conducted by the researcher to find out how the teacher uses the Silent Way in teaching and learning English, how the method improves student's speaking skill and whether students who are taught through Silent Way have better speaking skill than those who are not taught through Silent Way. The data is collected from the observation and the students' pretest and posttest score. The pretest is conducted first to the experimental and control groups. The result of the pretest provides information about both of groups' ability in speaking. The posttest is administered then to both of groups after the experimental group gets the treatments and the control group teaches through conventional teaching. The analytical scoring is adapted from H. Douglas Browns used to score the students' speaking skill. The components on the scoring which are used in this test are grammar, vocabulary, comprehension, fluency, and pronunciation.

1. Data Presentation

The researcher has done the research and collects the data to answer the statement of the problem. The data are presented as follows:

a. Using Silent Way in Teaching Speaking

The data for the first statement of the problem is gained through the observation checklist. The researcher is the implementer of teaching speaking using Silent Way while the teacher, as the observer, observes during teaching and learning process. The observation is held during the treatments has given to the experimental group. The date of giving the treatments to the experimental group can be seen on the table of schedule (*see chapter III*). The aim is to know how Silent Way is implemented in teaching and learning English.

The researcher uses four components to observe during teaching process. The components include organization, presentation, interaction, and content knowledge and relevance.[1] There are some stages in teaching speaking using Silent Way in the classroom. The stages are introduction, warming up, core activity, and closing. The steps of the stages are presented as follows:

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[1] Jack C. Richards,Thomas S. C. Farrell. *Practice Teaching: A Reflective Approach*. (Cambridge press, 2011). P.91.

1) Introduction

In the introduction, the researcher, as the teacher greets the student. Afterward, the researcher asks the students about their condition. Before beginning the lesson, the students usually pray together. So, after greeting the students, the researcher checks the students' attendance list. The students are not called one by one in order to check their attendance list, but the researcher only asks who is absent on that meeting. So, the time allocation can be used efficiently.

2) Warming Up

In this stage, the researcher elaborates about describing something. The researcher explains briefly in the previous meeting. The students are elicited to memorize the previous explanation from the teacher about how to describe something. Then the researcher explains and gives examples related to the topic of the lesson on that day.

3) Core Activity

In the core activity, the researcher explains about how to describe things. The process of the core activity is as follows:

a. Opening the class.

b. Giving the introduction about description and telling the function of it.

c. The researcher explaining about how to describe things.

d. Before presenting the silent way method, the researcher giving stimulate using examples related with the method.

e. Asking the students to provide opinion about the example that has given.

f. Asking to the students any unusual vocabulary and grammatical point in the context.

g. Students practicing pronounce word to develop their aural perception of the words.

h. The teacher giving explanation about how to use silent way method in learning speaking.

i. The students imitating what the teacher that given.

j. Students practicing in pairs after the teacher giving the treatment.

k. Giving the conclusion of what have been learned.

l. Closing the meeting.

4) Closing

Before closing the lesson, the researcher summarizes what they have learned in the class. The researcher gives comments to the activity that they had learned. The researcher also asks

whether the students have question related to the lesson on that day. To make sure that the students understand about what they had learned on that day, the researcher asks some students to give conclusion. And the lesson has ended.

According to the observer, the organizing of the lesson is good. The activity could attract the students and stimulate them to speak. However, the implementer do not explain more about Silent Way and show the explanations and the examples through the LCD like what has written on the lesson plan, because the teacher explained it in the previous meeting.

b. Students' Score

The next data for the second and the third statement of the problem is collected by giving tests to the experimental and control group. The data from both of groups are presented below:

1) Experimental Group

In this study, the experimental group is the students of VIII-G. The researcher takes 38 students as the sample of the experimental group. In the experimental group, the students have given treatments by teaching them using Silent Way. The main data of the experimental group's score are collected from pretest and posttest.

The purpose of this analyzing is to find out whether there is an increase in the whole scores of pretest and posttest. The pretest of the experimental group has done on Tuesday, June 18th 2013. To measure the students' speaking skill, analytic scoring is adapted by David P. Haris is employed. There are five categories with five levels to score the students' speaking skill. The result of score and the calculation is presented in the following:

Table 4.1

The Pretest Score of Experimental Group

Student	Pretest Experimental Group					
	G	V	C	F	A	Score
1	3	24	16	8	19	70
2	2	24	16	8	15	65
3	2	24	16	6	12	60
4	2	24	16	8	15	65
5	2	24	16	6	12	60
6	2	24	16	8	15	65
7	3	18	16	6	12	55
8	3	24	12	10	15	64
9	3	24	16	8	19	70
10	3	24	16	8	15	66
11	3	18	20	6	15	62
12	3	30	16	10	12	71
13	3	24	16	6	15	64
14	3	24	16	8	15	66
15	3	30	20	8	15	76
16	3	24	20	10	19	76
17	3	24	16	8	19	70
18	2	30	20	10	19	81

19	3	24	16	8	19	70
20	3	24	20	10	12	69
21	2	24	20	10	19	75
22	3	24	20	8	19	74
23	3	24	20	10	19	76
24	3	24	20	10	19	76
25	3	24	16	8	15	66
26	3	24	20	8	15	70
27	3	24	20	8	15	70
28	2	24	20	8	15	69
29	3	24	20	10	19	76
30	2	24	20	10	15	71
31	3	24	16	10	19	72
32	3	30	20	8	19	80
33	2	24	20	8	19	73
34	2	30	20	8	12	72
35	2	30	16	10	12	70
36	3	24	20	10	12	69
37	2	24	20	10	12	68
38	2	24	16	8	19	69
Σ	100	936	680	322	603	2641
$\overline{X}$	2.631579	24.63158	17.89474	8.473684	15.86842	69.5

Meanwhile, after the researcher gives treatment by Silent Way, the researcher conducts posttest to find out whether there is improvement of the students' speaking skill or not. The posttest is administered on Friday, June 21st 2013. The result of the students' posttest score is presented below:

Table 4.2

The Posttest Score of Experimental Group

Student	Posttest experimental group					
	P	G	V	F	C	Score
1	3	30	20	10	15	78
2	3	24	20	10	19	76
3	3	24	16	8	19	70
4	2	30	20	10	19	81
5	3	24	16	8	19	70
6	3	24	20	10	19	76
7	2	24	20	10	19	75
8	3	24	20	8	19	74
9	3	24	20	10	19	76
10	3	24	20	10	19	76
11	3	24	16	10	19	72
12	3	24	20	8	15	70
13	3	30	20	8	15	76
14	2	24	20	10	15	71
15	3	24	20	10	19	76
16	2	24	20	10	15	71
17	3	24	16	10	19	72
18	3	30	20	8	19	80
19	3	24	20	8	19	74
20	3	30	20	8	12	73
21	2	30	16	10	23	81
22	2	30	16	10	19	77
23	2	30	16	10	19	77
24	2	24	16	10	19	71
25	3	24	16	10	19	72
26	3	24	16	8	19	70
27	3	24	20	10	15	72
28	3	24	20	8	15	70
29	2	24	20	10	15	71
30	3	30	20	10	23	86

31	2	30	20	8	19	79
32	3	24	20	8	19	74
33	3	24	16	10	19	72
34	3	24	20	8	19	74
35	3	30	16	8	23	80
36	2	30	20	10	15	77
37	2	30	20	10	15	77
38	2	24	20	10	15	71
Σ	101	990	712	352	683	2838
$\overline{X}$	2.657895	26.05263	18.73684	9.263158	17.97368	74.68421

2) Control Group

The members of control group are the students of XI A-2. The students consist of 30 students as the sample. In the control group, the students are not taught through Silent Way. But, the students are taught through conventional teaching which is usually done by the teacher. The main data of the control group's scores are collected from pretest and posttest.

The purpose of this analyzing is to find out whether there is an increase in the whole scores of pretest and posttest. The pretest of the control group is done on Tuesday, June 18th 2013. To measure the students' speaking skill, analytic scoring adapted by David P. Haris is employed. There are five categories with five levels to score the students' speaking skill. The result of score and the calculation is presented in the following:

Table 4.3

The Pretest Score of Control Group

Students	Pretest Control Group					
	P	**G**	**V**	**F**	**C**	**Score**
1	2	24	16	6	12	60
2	3	18	20	6	15	62
3	2	24	16	8	15	65
4	3	24	16	8	19	70
5	2	24	16	8	15	65
6	2	24	16	6	12	60
7	2	24	16	8	15	65
8	2	24	16	6	12	60
9	2	24	16	8	15	65
10	2	24	16	8	19	69
11	3	24	16	8	15	66
12	3	24	16	6	15	64
13	3	18	20	6	12	59
14	3	30	16	10	15	74
15	3	24	16	6	15	64
16	3	24	16	8	15	66
17	3	24	16	8	15	66
18	3	24	16	6	15	64
19	3	18	16	6	15	58
20	3	24	16	8	19	70
21	2	24	16	6	12	60
22	2	24	16	6	12	60
23	3	18	20	6	15	62
24	2	24	16	8	15	65
25	3	24	16	8	19	70
26	2	24	16	8	15	65
27	2	24	16	6	12	60
28	2	24	16	8	15	65
29	2	24	16	6	12	60
30	2	24	16	8	15	65

31	3	18	16	6	12	55
32	3	24	12	10	15	64
33	3	24	16	8	19	70
34	3	24	16	8	15	66
35	3	18	20	6	15	62
36	3	30	16	10	12	71
37	2	24	16	6	15	63
38	2	24	16	8	15	65
$\sum$	96	888	620	276	560	2440
$\overline{X}$	2.526316	23.36842	16.31579	7.263158	14.73684	64.21053

After the researcher gives treatment by Silent Way, the researcher conducts posttest to find out whether there is improvement of the students' speaking skill or not. The posttest is administered on Friday, June 21st 2013. The result of the students' posttest score is presented below:

Table 4.4

The Posttest Score of Control Group

Students	Posttest Control Group					
	P	G	V	F	C	Score
1	3	24	16	10	15	68
2	3	24	16	8	15	66
3	2	24	20	10	19	75
4	3	24	16	8	19	70
5	3	30	20	10	12	75
6	2	24	16	8	15	65
7	3	24	20	10	15	72
8	2	24	16	8	15	65
9	3	18	16	8	19	64
10	3	24	16	10	12	65

11	2	24	20	10	12	68
12	2	24	16	6	12	60
13	3	24	16	6	15	64
14	3	30	16	6	19	74
15	3	24	16	8	12	63
16	2	24	20	10	12	68
17	2	24	20	10	12	68
18	2	24	20	10	12	68
19	2	24	20	10	12	68
20	3	24	16	8	19	70
21	3	30	20	10	15	78
22	3	24	16	8	15	66
23	2	24	20	10	19	75
24	3	24	16	8	19	70
25	3	18	20	10	19	70
26	2	24	16	8	15	65
27	3	24	20	10	15	72
28	2	24	16	8	15	65
29	3	24	16	8	19	70
30	3	24	16	10	12	65
31	2	18	20	10	12	62
32	2	24	16	6	12	60
33	3	24	16	6	15	64
34	3	24	12	8	19	66
35	3	24	16	10	12	65
36	2	24	20	8	12	66
37	2	24	20	10	12	68
38	2	24	20	10	12	68
$\sum$	97	912	668	332	562	2571
$\overline{X}$	2.552632	24	17.57895	8.736842	14.78947	67.65789

2. **Data Analysis of the Students' Score**

a. **The analysis of the experimental group's score**

After giving the pretest, treatment, and posttest to the experimental group, the researcher gets the result from and posttest score is presented as follow:

Table 4.5

Total and Mean of Pretest and Posttest Score of Experimental Group

Test		P	G	V	F	C	Score
PRE	Σ	100	936	680	322	603	2641
	$\overline{X}$	2.631579	24.6315	17.8947	8.47368	15.8684	69.5
POST	Σ	101	990	712	352	683	2838
	$\overline{X}$	2.657895	26.0526	18.7368	9.26315	17.9736	74.68421
	Progres	0.026%	1.421%	0.842%	0.789%	2.105%	5.18%

From the table 4.5 above, it can be seen that there's progress of the students speaking skill. In pretest, the means of the students' score 2.631 for pronunciation, 24.631 for grammar, 17.894 for vocabulary, 8.473 for fluency, and 15 for comprehension. So, the mean of the students' total score is 69.5. It shows that the students' speaking skill is still low. Therefore, the researcher teaches the students by using Silent Way as the treatment for the experimental group to improve the students' speaking skill. Meanwhile in posttest, the means of the

students' score are 2.657 for pronunciation, 26.052 for grammar, 18.736 for vocabulary, 9.263 for fluency, and 17.973 for comprehension. So, the mean of the students' total score is 74.684.

The score of the posttest is compared with the pretest shows that the students' scores increase significantly after they get the treatments. The significant increase of the students' score also shows that the Silent Way improves the students' speaking skill. The improvements are 0.026% in pronunciation, 1.421% in grammar, 0.842% in vocabulary, 0.789% in fluency, and 2.105% in comprehension. The improvement of the students' total score is 5.18%. The significant improvement of the students' speaking skill can be seen in the charts below:
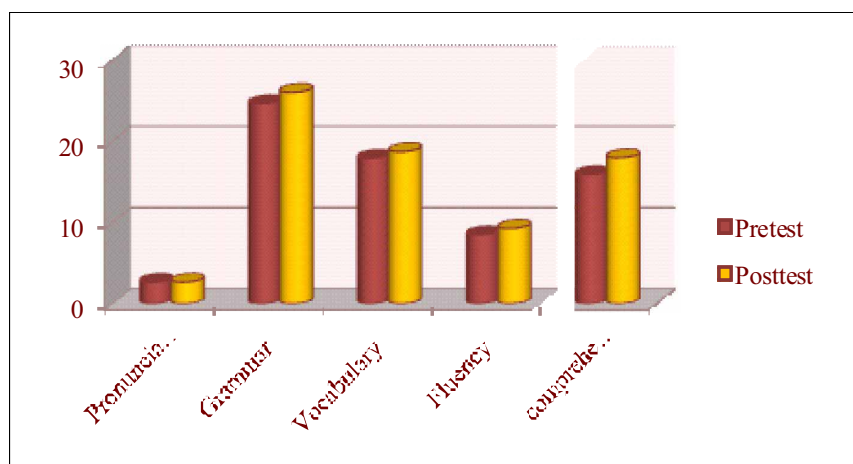
Chart 4.1
Chart of the Experimental Group's Pretest and Posttest Score
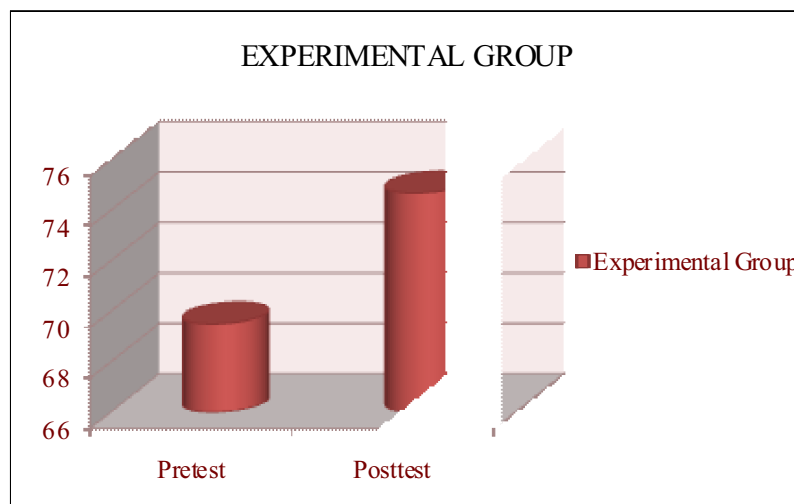
Chart 4.2
Chart of the Experimental Group's Score

b. The analysis of the control group's score

After conducting pretest, conventional teaching, and posttest to the control group, the researcher gets the result of pretest and posttest scores is presented as follows:

Table 4.6

Total and Mean of Pretest and Posttest Score of Control Group

Test		P	G	V	F	C	Score
PRE	Σ	96	888	620	276	560	2440
	X̄	2.526316	23.36842	16.31579	7.263158	14.73684	64.21053
POST	Σ	97	912	668	332	562	2571
	X̄	2.552632	24	17.57895	8.736842	14.78947	67.65789
	Progres	0.026%	0.631%	1.263%	1.473%	0.052%	3.447%

From the table 4.6 above, it can be seen that there's progress of the students' speaking skill. In pretest, the means of the students' score are 2.526 for pronunciation, 23.368 for grammar, 16.315 for vocabulary, 7.263 for fluency, and 14.736 for comprehension. So, the mean of the students' total score is 64.210. The students of control group have the same level of speaking skill as the students of experimental group. But, the researcher does not teach control group through Silent Way. They are taught using conventional teaching which is usually used by the teacher. Meanwhile, the means of the students' posttest score are 2.552 for pronunciation, 24 for grammar, 17.578 for vocabulary, 8.736 for fluency, and 14.789 for comprehension. So, the mean of the students' total score is 67.657

The posttest score is compared with the pretest shows that the students' scores increase. The increase of the students' score means that there's also improvement of students' speaking skill at control group. The improvements are 0.026% in pronunciation, 0.631% in grammar, 1.263% in vocabulary, 1.473% in fluency, and 0.052% in comprehension. The improvement of the students' total score is 3.447%. The improvement of the students' speaking skill at control group can be seen in the charts below:
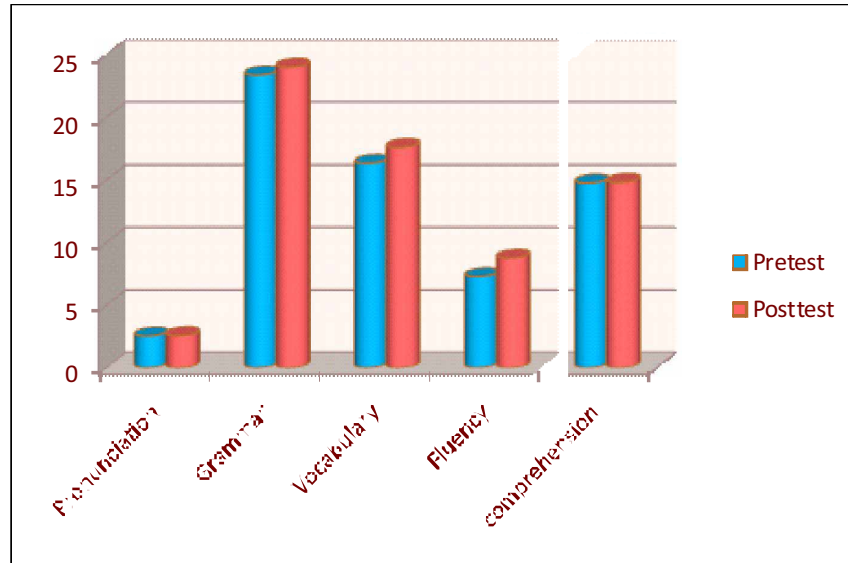
Chart 4.3

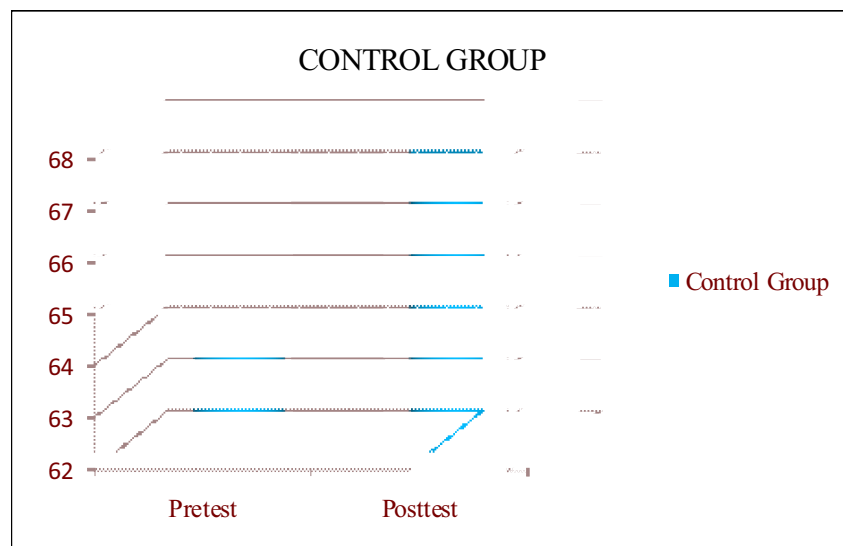Chart of the Control Group's Pretest and Posttest Score

Chart 4.4

Chart of the Control Group's Score

Table 4.7

Pre-test and Post-test Difference

Group	Pre-test Mean	Post-test Mean	Difference Mean
EXPERIMENTAL	69.5	74.68421	**5.18421**
CONTROL	64.21053	67.65789	**3.44736**

c. **Data Analysis using T-test**

After all the data of the students' score has collected, the researcher analyzes the data through t-test. T-test is a tool which is used for comparative hypothesis of two samples if the data is in interval or ratio.[2] It is aimed to find out whether the students who are taught through Silent Way have better speaking skill or not.

The data which is taken from the posttest score of both of experimental and control group are needed to analyze using t-test. The researcher should do normality and homogeneity test before calculating the students' posttest scores using t-test. The normality test is used to check whether the characteristic of the population are normally distributed or not. Meanwhile homogeneity test is used to check the homogeneity of variance of both experimental and control group's test score.

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[2] Sugiono, *Statistika Untuk Penelitian*, p. 121

On the previous chapter, the researcher gets the result of the normality and homogeneity test. From the calculation, it is showed that the data has normally distributes and homogeny. Afterward, the researcher uses t-test to calculate the data from the experimental and control group's posttest score. But, before using t-test, the researcher should find standard deviation and variance of the data from both of the experimental and control group. Standard deviation and variance of each group are presented as follows:

Table 4.8

Standard Deviation (Sd) And Variance (V) of Experimental and Control Group

Group	Total Score	Mean	Std. Deviation	Variance
Experimental	2838	74.68421	3.835152227	14.7083926
Control	2571	67.65789	4.180238683	17.47439545

Afterward, the researcher calculated t-test from posttest scores of experimental and control group. The steps are presented below:

$$t = \frac{x_1 - x_2}{\sqrt{\left\{\frac{(n_1 - 1)S_1^2 + (n_1 - 1)S_2^2}{n_1 + n_2 - 2}\right\}\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{74,68421 - 67,65789}{\left\{\frac{(38 - 1)3,835 + (38 - 1)4,180}{38 + 38 - 2}\right\}\frac{1}{38} + \frac{1}{38}}$$

$$t = \frac{7{,}026}{\left(\frac{544{,}159 + 646{,}464}{74}\right)\frac{2}{38}}$$

$$t = 7.645$$

1) Determine alpha $(\alpha) = 0{,}05$

2) Find the number of degree of freedom using the following formula:

$$df = (N_1 + N_2) - 2$$

$$= (38 + 38) - 2$$

$$= 76 - 2$$

$$= 74$$

After the data had been calculated above, it is finding that the standard deviation of the experimental group is 3.835 and the control group is 4.180. Then, the researcher is compared the result to t-table distribution which significant and degree of freedom (df) are 0.05 and 74. It is found that t-table is 1.980 while the result of t-value is 7.645.

d. Testing the Hypothesis

There are some steps to test the hypothesis. The steps are as follows:

This research uses standard significance 95% $(\alpha = 0{,}05)$ to test the hypothesis. The researcher uses test-two sides to take the conclusion. The foundation of decision rule is:

1) If $t_{value} > t_{table}$, it means that Null Hypothesis (H_0) is rejected and Alternative hypothesis (H_a) is accepted. So, students who are taught through Silent Way have better speaking skill than those who are not taught through Silent Way.

2) If $t_{value} < t_{table}$, it means that Null Hypothesis (H_0) is accepted and Alternative Hypothesis (H_a) is rejected. Thus, students who are not taught through Silent Way have better speaking skill than those who are taught through Silent Way.

Based on the calculation of the data, the result of the t-value is 7.645. Meanwhile, the t-table with 5% significance and the degree of freedom (df) 74 is 1.980. It means that the t-value is higher than t-table (the value which is required to reject null hypothesis at the level of 0.05) and the difference is significant. Thus, the alternative hypothesis (H_a) is accepted. The alternative hypothesis is students who are taught through Silent Way have better speaking skill than those who are not taught through Silent Way. On the other hand, the null hypothesis is rejected. The null hypothesis is students who are not taught through Silent Way have better speaking skill than those who are taught through Silent Way. It is presented on the table below:

Table 4.9

Summary of Data Analysis of T-test

Technique	t_{value}	t_{table}	Result
Silent Way Method	7.645	1.980	Significant

B. Discussion

This study is about the use of Silent Way to improve speaking skill of the eleventh graders. This research uses quasi-experimental research as the design of the research. This section is intended to analyze the result or research finding based on the related theory. All data are collected from the research instrument provides information of the research findings. The result of the observation is presented in the descriptive form. The result of the students' score is calculated using t-test.

1. Using Silent Way Method in the Classroom

This section is to answer the first statement of the problem, the researcher analyze from the observation checklist. The researcher teaches the students using the Silent Way as the treatment at the experimental group. The role of Silent Way is relatively less silent so that students are encouraged to be more active in producing language as much as possible. It means that students will have a great chance to practice their English language orally as much as possible in order to improve their speaking ability. Then, a language teacher should encourage students to take a role

in learning activities. The time of learning teaching interaction should be given to students, not to the teacher.

In teaching speaking skill by using Silent Way, at the beginning of the stage teacher is designed the appropriate sound after pointing to a symbol on a chart. Later, the teacher is silently point to individual symbols and combinations of symbols, and monitor students utterances. The teacher may say a word and have students to guess what sequence of symbols comprised the word. After that, the teacher gives a sentence by using gestures and the students guess and express what the teacher given.[3] In this research, the students are prepared the tools to practice with Silent Way. After that, the researcher is explains the procedures to the students. The students begin to practice the Silent Way. Afterward, the teacher accepts the students' comments in a no defensive manner, hearing things that help gives them direction for where they works when the class meets again. The students learn to take responsibility for their own learning by becoming aware of and controlling how they use certain learning strategies in class.[4]

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[3] Diane Larsen-Freeman, *Techniques and Principle in Language Teaching*, (New York; Oxford University Press, Inc, 1986), 53.
[4] Diane Larsen-Freeman, 68.

2. Students' Score

The researcher conducts the research in four meeting for each group. In the first meeting, pretest has administered in both of the experimental and control group. The aim of conducting pretest is to know the students' achievements before getting the treatments. Besides, pretest is conducted to ensure that both of experimental and control group have similarity of speaking skill. The second and the fourth meeting, the researcher gives treatments by using Silent Way at the experimental group. In the contrary, the control group is teaches using conventional teaching. The treatments are given in two meeting for each groups. In last meeting, the students are given posttest after they get the treatments. It is conducted to measure students' improvement after getting the treatments.

The researcher uses t-test to test the hypothesis and know the significant difference of the experimental and control group. It is used to check whether H_0 is accepted or not. The criteria is if t-value < t-table it means H_0 is accepted, while if t-value > t-table it means H_0 is rejected. In the previous subheading, it is seen that t-value was 7.645. Whereas, t-table with the level of significance 0.05 and degree of freedom 74 is 1.980, to test hypothesis is still related to take the conclusion to answer the third statement of the problem. After the result of t-value is found, it means the hypothesis is concluded. If the null hypothesis (H_0) is untruthful, the alternative hypothesis is accepted. In this experimental

research, the alternative hypothesis (Ha) is stated that students who are taught through Silent Way have better speaking skill than those who are not taught through Silent Way. In the contrary, the null hypothesis is stated that students who are not taught through Silent Way have better speaking skill than those who are taught through Silent Way.

The result of the research shows that students of experimental group have better improvement than students of control group. It is simply concludes that null hypothesis (H_0) "Students who are not taught through Silent Way have better speaking skill than those who are taught through Silent Way" is rejected. Meanwhile, the alternative hypothesis (Ha) "Students who are taught through Silent Way have better speaking skill than those who are not taught through Silent Way" is accepted.