CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

This research was conducted to find out significant difference of implementing self-directed learning on students' speaking skill. The all data were gotten from the students' pre-test and post-test of experiment class and control class. Before doing the treatment, the researcher gave pre-test to control class and experimental class. After doing the pre- test, the researcher gave 6 meetings for do the treatment. And the last meeting, the researcher gave post-test to control class and experimental class. The researcher conducted a pre- test for XII MIPA 3 and XII MIPA 4, and the treatment was applied to the experimental class, XII MIPA 3. Than the result was evaluated from two raters. In the following, the data presentation and the data analysis are presented:

1. **Students' Speaking Skill Taught by Implementing Self-Directed Learning of the Twelfth Grade Students at MAN 1 Dumai**

    The following table was description of the students' pre-test and post test score taught with using self-directed learning of twelfth science three (XII MIA 3) as Experimental Class. The data can be seen from the table below:

Table IV. 1
Students' Pre-Test and Post-Test Score of Experimental Class

| No | Respondent | Experimental Class | | | | | |
| | | Pre Test | | | Post test | | |
		Rater 1	Rater 2	Final Score	Rater 1	Rater 2	Final Score
1	Students 1	60	56	58	60	76	68
2	Student 2	60	56	58	72	76	74
3	Student 3	52	56	54	68	72	70
4	Student 4	52	56	54	60	64	62
5	Student 5	80	76	78	80	80	80
6	Student 6	72	64	68	80	80	80
7	Student 7	52	52	52	60	64	62
8	Student 8	60	60	60	80	80	80
9	Student 9	72	60	66	80	80	80
10	Student 10	40	44	42	60	64	62
11	Student 11	52	52	52	68	80	74
12	Student 12	60	56	58	72	72	72
13	Student 13	60	56	58	72	76	74
14	Student 14	52	48	50	60	72	66
15	Student 15	68	68	68	80	80	80
16	Student 16	52	48	50	60	64	62
17	Student 17	56	56	56	72	76	74
18	Student 18	60	56	58	64	68	66
19	Student 19	52	40	46	60	64	62
20	Student 20	52	52	52	68	72	70
21	Student 21	60	60	60	72	76	74
22	Student 22	68	68	68	80	80	80
23	Student 23	52	52	52	72	60	66
24	Student 24	60	64	62	72	72	72
25	Student 25	60	60	60	72	72	72
26	Student 26	52	48	50	60	56	58
27	Student 27	52	52	52	60	64	62
28	Student 28	48	48	48	60	60	60
29	Student 29	52	48	50	60	60	60
30	Student 30	40	40	40	60	52	56
31	Student 31	60	60	60	80	80	80
	Total	**1768**	**1712**	**1740**	**2124**	**2192**	**2158**
	Mean	**57,03** **56,13**		**55,23**	**68,51**	**70,70**	**69,61**

From the table IV. 1, the researcher was found that the total score of pretest in experimental class was 1740 while the mean score is 56.13, the highest score was 78 and the lowest was 40 . Then the total score of posttest in experimental class was 2158 and the mean score is 69.61, the highest was 80 and the lowest was 5

In addition, the frequency distribution of the students' pre- test score in experimental class can be seen as below:

Table IV. 2

The Distribution Frequency of Students Pre Test Score in Experimental Class

		Frequency	Percent	Valid Percent	Cumulative Percent
	40	1	3,2	3,2	3,2
	42	1	3,2	3,2	6,5
	46	2	6,5	6,5	9,7
	48	1	3,2	3,2	12,9
	50	4	12,9	12,9	25,8
	52	5	16,1	16,1	41,9
Valid	54	2	6,5	6,5	48,4
	56	1	3,2	3,2	51,6
	58	5	16,1	16,1	67,7
	60	4	12,9	12,9	80,6
	62	1	3,2	3,2	83,9
	66	1	3,2	3,2	87,1
	68	3	9,7	9,7	96,8
	78	1	3,2	3,2	100,0
	Total	31	100,0	100,0	

Based on table IV.2 the distribution of frequency of students pre-test scores in the experimental class could be seen that in the pre-test that one student got 40 (3.2%), one student got 42 (3.2%) , two students got 46 (6.5%) one student got 48 (3.2%), four students got 50 (12.9 %), five students got 52 (16.1%), two

students got 54 (6.5%), one student got 56 (3.2%), five students got 58 (16.1%), four students got 60 (12.9%) ,one student got 62 (3.2%), one student got 66 (3.2%), three students got 68 (9.7%), and one student got 78 (3.2%) .

While, in post- test the researcher found distribution of frequency of student's post- test score in experimental class which was showed in table IV.3 below:

Table IV. 3
The Distribution Frequency of Students Post Test Score
in Experimental Class

		Frequency	Percent	Valid Percent	Cumulative Percent
	56	1	3,2	3,2	3,2
	58	1	3,2	3,2	6,5
	60	2	6,5	6,5	12,9
	62	6	19,4	19,4	32,3
Valid	66	3	9,7	9,7	41,9
	68	1	3,2	3,2	45,2
	70	2	6,5	6,5	51,6
	72	3	9,7	9,7	61,3
	74	5	16,1	16,1	77,4
	80	7	22,6	22,6	100,0
	Total	31	100,0	100,0	

Based on table IV.3, the distribution of frequency of students post-test score in experimental class could be seen that in the post-test that one student got 56 (3.2%) , one student got 58 (3.2%), two students got 60 (6.5%),six students got 62 (19.4%), three students got 66 (9.7%), one student got 68 (3.2%), two students got 70 (6.5%), three student got 72 (9.7%) , five students got 74 (16.1%), and seven students got 80 (22.6%) .

Meanwhile, the standard deviation and mean were also needed in analyzing the data from pre-test and post-test. The researcher used SPSS 25 to determining the standard deviation and mean. It can seen in the following table below:

Table IV. 4

The Statistic of Pre-test and Post-test in Experimental Class

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Pre-Test Experiment	31	40	78	56,13	1,460	8,131
Post-Test Experiment	31	56	80	69,61	1,377	7,667
Valid N (listwise)	31					

The researcher classified the pre-test and post test result of experiment class of the twelve science three Islamic Senior High School 1 Dumai to know category of the students' speaking skill scores. The classification can be seen from the following table :

Table IV. 5

The Classification of Students' Pre-Test and Post-Test in Experimental Class

No	Categories	Score	Frequency of pre-test score	Percentage	Frequency of post-test score	Percentage
1	Very good	80-100	-	-	7	22,6%
2	Good	66-79	5	16,1%	14	45,2%
3	Enough	56-65	11	35,5%	10	32,3%
4	Less	40-55	15	48,4%	-	-
5	Fail	30-49	-	-	-	-
	Total		**31**		**31**	

From the table above, it can be seen that there were 5 categories for students' speaking skill of experiment class. In pre-test, there was no student who was categorized into "very good", and "fail" category. It can be seen that 5 students got 66-79 score and categorized "Good". 11 students got 56-65 score and categorized "Enough". 15 students got 40-55 score and categorized "Less".

In post- test, it indicated that there were 7 students got score 80-100 and categorized " Very Good". 14 students got score 66-79 and categorized "Good". 10 students got score 56-65 and categorized "Enough". In conclusion, the majority of the experimental class student' post test score were classified into " Good" and be followed in "Enough" category.

Table IV. 6

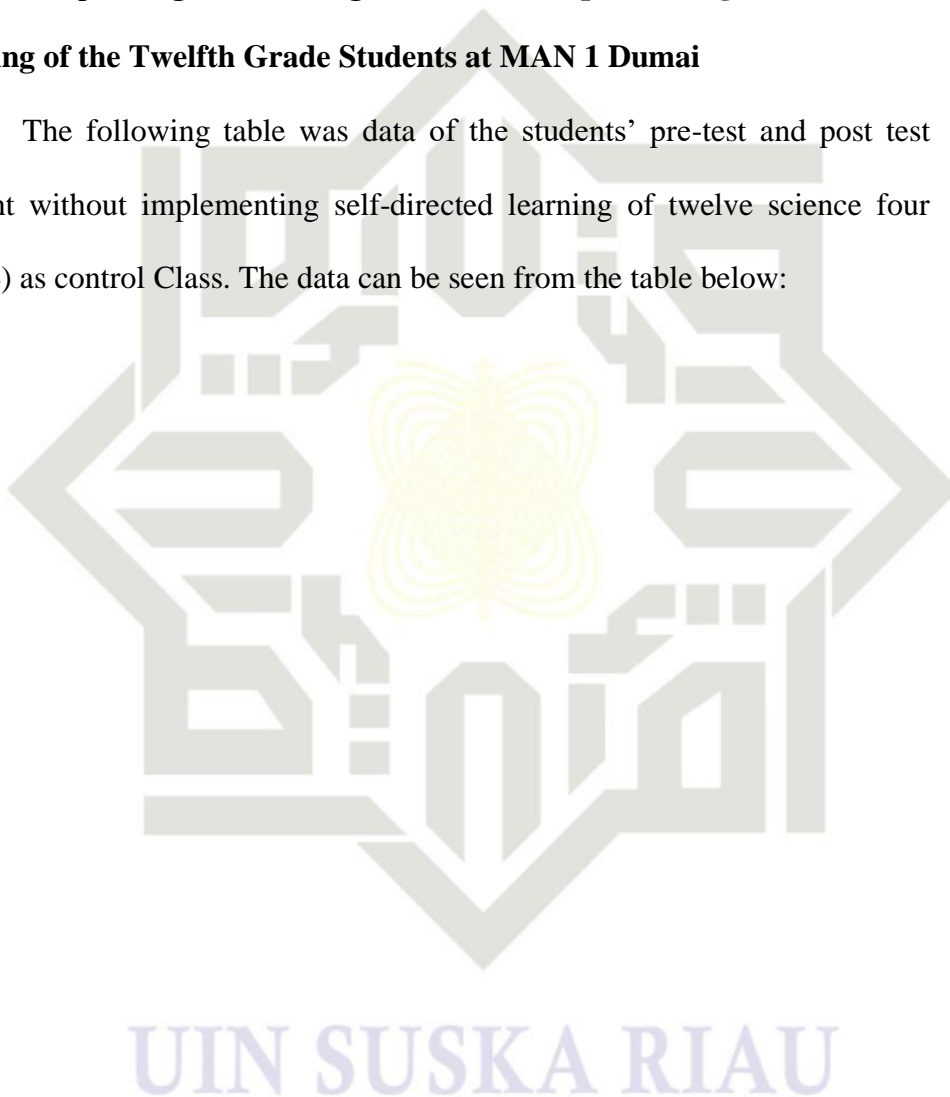**The Classification of the Students' Self - directed Learning in Experimental Class**

No	Categories	Score	Frequency	Percentage (%)
1	High	≥ 85	13	41,9%
2	Medium	$73 \leq x \leq 84$	15	48,4%
3	Low	≤ 72	3	9,7%
	Total		31	100%

Table IV. 6, demonstrates that there were 3 categories of the students' self-directed learning score of the experiment class. The frequency of *High Category* is 13 out of 31 students (41.9%), the frequency *Medium* is 15 out of 31 students (48.4%) and the frequency of *Low* is 3 out of 31 students (9.7%). The highest percentage of the classification of the students' self-directed

learning score of experiment class is 48.4%. Thus, the students' self-directed learning in the experiment class was classified into *Medium*.

2. Students' Speaking Skill Taught without Implementing Self-directed Learning of the Twelfth Grade Students at MAN 1 Dumai

The following table was data of the students' pre-test and post test score taught without implementing self-directed learning of twelve science four (XII MIA 4) as control Class. The data can be seen from the table below:

Table IV. 7

Students' Pre-Test and Post- Test score of Control Class

| No | Respondent | Control Class | | | | | |
| | | Pre Test | | | Post test | | |
		Rater 1	Rater 2	Final Score	Rater 1	Rater 2	Final Score
1	Students 1	40	52	46	60	48	54
2	Student 2	40	48	44	60	48	54
3	Student 3	60	64	62	80	68	74
4	Student 4	52	60	56	60	52	56
5	Student 5	60	72	66	76	64	70
6	Student 6	60	60	60	72	64	68
7	Student 7	48	52	50	60	64	62
8	Student 8	40	44	42	60	48	54
9	Student 9	48	56	52	60	48	54
10	Student 10	60	64	62	80	72	76
11	Student 11	40	48	44	60	60	60
12	Student 12	48	56	52	52	60	56
13	Student 13	40	44	42	60	52	54
14	Student 14	40	44	42	60	48	54
15	Student 15	48	60	54	60	56	58
16	Student 16	60	64	62	80	60	70
17	Student 17	72	76	74	76	64	70
18	Student 18	40	44	42	48	40	44
19	Student 19	40	48	44	52	40	46
20	Student 20	52	60	56	72	48	60
21	Student 21	48	60	54	64	56	60
22	Student 22	56	64	60	68	52	60
23	Student 23	40	44	42	60	48	54
24	Student 24	40	48	44	60	52	56
25	Student 25	60	76	68	80	72	76
26	Student 26	56	72	64	68	52	60
27	Student 27	60	72	66	76	56	66
28	Student 28	40	44	42	60	40	50
29	Student 29	60	68	64	72	64	68
	Total	**1448**	**1664**	**1556**	**1896**	**1592**	**71744**
	Mean	**49,93**	**57,37**	**53,65**	**65,38**	**54,89**	**60,14**

From the table IV. 9, the researcher was found that the total score of pre-test in control class was 1556 while the mean score is 53.65. The minimum score in pre-test was 42 , maximum score was 74. Then the total score of post-test in control class was 1744 and the mean score is 60.14. Then,

the minimum score in post-test was 44, and maximum score was 76. Then distribution score of pre-test in control class can be seen in the following table:

Table IV. 8
The Distribution Frequency of Students Pre-Test Score
in Control Class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	42	6	20,7	20,7	20,7
	44	4	13,8	13,8	34,5
	46	1	3,4	3,4	37,9
	50	1	3,4	3,4	41,4
	52	2	6,9	6,9	48,3
	54	2	6,9	6,9	55,2
	56	2	6,9	6,9	62,1
	60	2	6,9	6,9	69,0
	62	3	10,3	20,3	79,3
	64	2	6,9	6,9	86,2
	66	2	6,9	6,9	93,1
	68	1	3,4	3,4	96,6
	74	1	3,4	3,4	
	Total	29	100,0	100,0	

Based on table IV. 8 the distribution of frequency of students pre-test scores in the control class could be seen that in the pre-test that six students got 42 (20.7%), four students got 44 (13.8%), one student got 46 (3.4%), one student got 50 (3.4%), two students got 52(6.9%), two students got 54 (6.9%), two students got 56 (6.9%), two students got 60 (6.9%), three students got 62 (10.3%), two students got 64 (6.9%), two students got 66 (6.9%), one student got 68 (3.4%), and one student got 74 (3.4).

While, in post- test the researcher found distribution of frequency of student's post- test score in control class which was showed in table IV.8 below:

Table IV. 9

**The Distribution Frequency of Students Post-Test Score
in Control Class**

	Frequency	Percent	Valid Percent	Cumulative Percent
44	1	3,4	3,4	3,4
46	1	3,4	3,4	6,9
50	1	3,4	3,4	10,3
54	7	24,2	24,2	34,5
56	3	10,3	10,3	44,8
58	1	3,4	3,4	48,3
Valid 60	5	17,2	17,2	65,5
62	1	3,4	3,4	69,0
66	1	3,4	3,4	72,4
68	2	6,9	6,9	79,3
70	3	10,3	10,3	89,7
74	1	3,4	3,4	93,1
76	2	6,9	6,9	100,0
Total	29	100,0	100,0	

Based on table IV. 9, it is indicated that, one student got 44 (3.4%), one student got 46(3.4%), one student got 50(3.4%), seven students got 54 (24.2%), three students got 56 (10.3%), one student got 58(3.4%), five students got 60 (17.2%),one student got 62 (3.4%), one student got 66 (3.4%), two students got 68 (6.9%), three students got 70 (10.3%), one student got 74 (3.4%), and two students got 76 (6.9%).

Meanwhile, the researcher used SPSS 25 to determining the standard deviation and mean of pre-test and post-test in control class. It can be seen in the following table below:

Table IV. 10
The Statistic of Pre-test and Post-test in Control Class

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Pre-Test Control	29	42	74	53,66	1,825	9.828
Post-Test Control	29	44	76	60,14	1,582	8.518
Valid N (listwise)	29					

The researcher classified the pre-test and post test result of control class of the twelve science four Islamic Senior High School 1 Dumai to know category of the students' speaking skill scores. The classification can be seen from the following table :

Table IV. 11
The Classification of Students' Pre-Test and Post-Test in Control Class

No	Categories	Score	Frequency of pre-test score	Percentage	Frequency of post-test score	Percentage
1	Very good	80-100	-	-	-	-
2	Good	66-79	4	13,8%	9	31,0%
3	Enough	56-65	9	31,0%	10	34.,5%
4	Less	40-55	16	55,2%	10	34,5%
5	Fail	30-49	-	-	-	-
	Total		**29**		**29**	

From the table above, it can be seen that there were 5 categories for students' speaking skill of the control class. 4 students got 66-79 score and categorized "Good". 9 students got 56-65 score and categorized "Enough". 16 students got 40-55 score and got "Less".

In post- test, 9 students got 66-79 score and categorized "Good" . 10 students got 56-65 score and categorized "Enough". 10 students got 40-55 score and

categorized "Less". In conclusion, the majority of the control class student' post test score were classified into " Enough and Less " and be followed in "Enough" category.

Table IV. 12

The Classification of the Students' Self - Directed Learning in Control Class

No	Categories	Score	Frequency	Percentage (%)
1	High	≥ 97	4	13,8%
2	Medium	$76 \leq x \leq 96$	21	72,4%
3	Low	≤ 75	4	13,8%
	Total		29	100%

Table IV. 12 demonstrates that there were 3 categories of the students' self-directed learning score of the control class. The frequency of *High Category* is 4 out of 29 students (13,8%), the frequency *Medium* is 21 out of 29 students (72,4%) and the frequency of *Low* is 4 out of 29 students (13,8%). The highest percentage of the classification of the students' self-directed learning score of control class is 72,4%. Thus, the students' self-directed learning in the control class was classified into *Medium.*

3. The Difference between Students' Speaking Skill who Taught by Implementing Self-Directed Learning and Without Implementing Self- Directed Learning of the Twelfth Grade Students at MAN 1 Dumai

The students' pre- test and post- test of experimental and control classes are presented in the following table :

Table IV. 13
Students' Pre-Test and Post-Test Score of Experimental class and Control Class

No. Student	Experimental Class			No. Student	Control Class		
	Pre-test	Post-test	Gain		Pre-test	Post-test	Gain
1	58	68	10	1	46	54	8
2	58	74	16	2	44	54	10
3	54	70	16	3	62	74	12
4	54	62	8	4	56	56	0
5	78	80	2	5	66	70	4
6	68	80	12	6	60	68	8
7	52	62	10	7	50	62	12
8	60	80	20	8	42	54	12
9	66	80	14	9	52	54	2
10	42	62	20	10	62	76	14
11	52	74	22	11	44	60	16
12	58	72	14	12	52	56	4
13	58	74	16	13	42	54	12
14	50	66	16	14	42	54	12
15	68	80	12	15	54	58	4
16	50	62	12	16	62	70	8
17	56	74	18	17	74	70	-4
18	58	66	8	18	42	44	2
19	46	62	16	19	44	46	2
20	52	70	18	20	56	60	4
21	60	74	14	21	54	60	6
22	68	80	12	22	60	60	0
23	52	66	14	23	42	54	12
24	62	72	10	24	56	44	12
25	60	72	12	25	68	76	8
26	50	58	8	26	60	64	-4
27	52	62	10	27	66	66	0
28	48	60	12	28	42	50	8
29	50	60	10	29	64	68	4
30	40	56	16				
31	60	80	20				
Total	1740	2158	418		1556	1744	188
Mean	56,13	69,61	3,49		53,65	60,14	6,48

Based on the table above, it showed that the mean score of pre-test and post-test score in experimental class were 56.13 and 69.12 with gain 3.49, while, for the control class the mean score pre-test and post-test score were 53.65 and 60.13 with

gain 6.48. From the table above, there was significant difference for post-test in experimental class and control class. The highest post-test score of experimental class was 80 and the lowest score was 58. In control class, the highest post-test score was 76 and the lowest score was 44.

Table IV. 14
The Difference between the Students' Post- Test Scores in Experimental and Control Classes

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Post-Test Experiment	31	69,61	1,377	7,667
Post-Test Control	29	60,14	1,582	8,518

From the table above, the mean of the experimental class and control class were 69.61 and 60.14. While the standard deviation of experimental class and control class were 7.667 and 8.518. The mean and standard deviation of the experimental class and control class were significantly different.

The data analysis of students' speaking skill taught by implementing and without implementing self -directed learning. Before doing the test analysis, the researcher analyzed normality test to make sure that experimental class and control class were normal and analyzes homogeneity test to make sure that experimental class and control class were homogeneity.

a.   **Normality of the Data**

Test normality was used to find out whether the data of experimental class and control class which had been collected from the pre-test and post-test score came from normal distribution or not. The researcher needed to apply normality analysis by using SPSS 25 which was illustrated as follow:

Table IV. 15
The Normality of Data

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre -Experiment	,123	31	,200	,967	31	,0436
Post-Experiment	,162	31	,037	,914	31	,016
Pre- Control	,182	29	,015	,906	29	,013
Post - Control	,162	29	,051	,945	29	,132

*. This is a lower bound of the true significance

Lilliefors Significance Correction

For the normality test, if the significant level (Asymp.Sig) is bigger than 0.05, the data distribution is normal, while if the significant level (Asymp. Sig) is less than 0.05, the data no distribution normal. As presented from the table above, it can be seen that the asymp significant value for post – test in experimental and control class score were 0.037 and 0.051. Thus, it can be concluded that both of the data are not normal. Therefore, the analysis could be continued by using Mann-Whitney Test.

b. Homogeneity

Test of homogeneity was done to know whether the sample in the research came from population that had same variance or not. In this research using SPSS. 25 to measure the homogeneity of the post- test experimental class and control class. The homogeneity of variance, if the significant based on mean > 0.05 the data is homogeneity.

Table IV. 16
Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig
Based on Mean	,027	1	58	,871
Based on Median	,024	1	58	,877
Based on median and with adjusted df	,024	1	53,689	,877
Based on trimmed mean	,029	1	58	,866

c. **Mann- Whitney Test**

After knowing that the data were not normally distributed, the researcher would show the description of Mann- Whitney Test analysis on the following table:

Table IV. 17
Mann-Whitney Test

	Result
Mann-Whitney U	178,000
Wilcoxon W	613,000
Z	-4,034
Asymp. Sig. (2-tailed)	,000
a. Grouping Variable: Class	

From the table of Mann – Whitney Test showed that the result of the data analysis could answer the formulation of the research question. From the output above, it also can be seen that sig (2- tailed) value is 0.000. It can be stated that $0.000 < 0.05$, it means that null hypothesis (H_0) was rejected, while the alternative hypothesis (H_a) was accepted. It means that there was a significant difference of students' speaking skill with and without implementing self-directed learning at state Islamic senior high school 1 Dumai.

1) Hypothesis Testing

Statistically, the hypotheses are formulated as:

H_0 : Sig. (2-tailed) > 0.05

H_a : Sig. (2-tailed)

Therefore, it can be concluded that the null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted. It is found that there is significant difference of implementing self – directed learning on students' speaking skill at state Islamic senior high school 1 Dumai.

d. Effect Size of Implementing Self- Directed Learning on Students' Speaking Skill

To determine significant effect of implementing self – directed learning on students' speaking skill. It was done by calculating effect size by using the following formula:

$$r = \frac{z}{\sqrt{n}}$$

The guidelines for interpreting this value are :

001 = small effect

0,06 = moderate effect

0,14 = large effect

$$r = \frac{z}{\sqrt{n}}$$

$$r = \frac{4,034}{\sqrt{60}}$$

$$r = 0,52$$

Based on the result above, it can be stated that the effect size was " large effect"

According to Cohen (1988), the guidelines for interpreting the value of etta squared which were presented in the table IV. 18 as follows:

Table IV. 18
Effect Size Guidelines

0,01 = small effect
0,06 = moderate effect
0,14 = large effect

B. Discussion

In the final sections of this chapter, the researcher presented the discussion of the research findings. The objectives of this research is to examine if there any significant difference of implementing self-directed learning on students' speaking skill and without implementing self-directed learning on students' speaking skill. There was research questions proposed in this research. The question Is there any significant difference of implementing self-directed learning on students' speaking skill at State Islamic senior high school Dumai?

In part of the findings of the research, showed that the classification of self-directed learning in the experimental class and classification of self-directed learning in the control class had the same category. Before the test was carried out to test students' speaking skill, the researcher first collected questionnaire to see the self-directed learning abilities of these two classes, the experimental class and the control class. From the result of the analysis of the questionnaire obtained, it was found that

the experimental class and the control class had the same level, they were at the medium level in self- directed learning.

Based on the findings of the research, showed that the mean score of students' speaking skill taught without implementing self-directed learning was lower than the students' speaking skill taught by implementing self-directed learning. Before self-directed learning was applied in teaching speaking, many students didn't interest and had many problems speaking. There were afraid to make mistakes, there were shy to come up with an idea, lack of speaking practice, had low motivation, read lazily, less dictionary usage, fear of criticism, etc. Riadil (2020) mentioned that students tend to speak very little, they tend to hide their mistakes and are afraid to be criticized by others. As a result of the problem, students lack the opportunity to practice speaking English and are afraid to do so.

Meanwhile, the mean score of students' speaking skill taught by implementing self-directed learning was higher than the students taught without implementing self-directed learning. Malan & Ndlovu (2014) stated that changes in the student's application patterns of self-directed learning make students' cognitive patterns concrete, and realistic and have greater learning motivation. Students enjoy part of the learning process.

Besides, there was a significant difference of implementing self-directed on students' speaking skill. In line with the previous research by Alaon, Santos & San Jose (2023) mentioned that presented improving Speaking in English through self-directed can increase, particularly pronunciation, and vocabulary, and can be enhanced by using internet platforms and reading materials. In addition, research by Rizka, Arik

(2021) stated that applying self-directed learning is a helpful way to the students' speaking skill. Additionally, Majedi (2016) stated that self-directed learning can influence the learners' speaking accuracy development. So, it can be an implication for teaching and learning speaking in the classroom.

In the line above, the researcher concluded that implementing self-directed learning was successful in speaking skill.