CHAPTER IV
THE RESULT OF THE RESEARCH

A. Description of Data

In this chapter, the researcher will attempt to submite the data as outcomes of research that has hold in Eleventh Grade of SMAN 1 Pamarayan, this research takes class A as the control class and B as the experiment class.

To get the data the writer uses test as instrument, namely pre-test and post-test.

Table 4.1

The result of pre-test and post-test of experiment class

No	Initial name	Pre-test	Post-test
1	RFR	60	80
2	MS	50	75
3	ARR	65	80
4	CCA	45	70
5	ELT	60	80
6	FTH	55	75
7	FKB	60	80
8	HLS	55	70
9	JWR	65	85
10	KST	50	70
11	KNH	40	75
12	LND	55	70
13	MGS	40	75

14	MRW	60	80
15	MHF	65	90
16	MSJ	50	75
17	NRG	55	70
18	NRS	40	65
19	PTN	65	90
20	RNI	60	75
21	RHL	50	70
22	RJN	55	70
23	SNH	65	80
24	SKH	60	90
25	SRN	40	70
26	SST	60	85
27	SDI	55	80
28	SFH	65	75
29	SNT	45	70
30	SBM	60	80
31	STH	50	85
32	SHM	65	75
33	WND	40	70
34	WWN	55	80
35	YSF	60	75
	$\sum$	1920	2680

Mean of pre-test:

$$X = \frac{\sum X}{N} = \frac{1920}{35} = 54.85$$

Mean of post-test:

$$M_1 = \frac{\sum X_1}{N_1} = \frac{2680}{35} = 76.57$$

Based of explanation above, it show that the result of experiment class got the significant improvement after giving treatment, it seen from the average score of post-test is better than the verage score of pre-test, that is $76,57 > 54.85$. the student's improvement score caused by the researches used metacognitive strategies in teaching learning process. If seen from student's improvement score it means that the technique used is success in improving student's effectiveness in learning english.

Table 2

The result of pre-test and post-test of control class

No	Inital Name	Pre-test	Post-test
1	ANH	60	65
2	ADT	65	70
3	ASH	65	70
4	ADN	70	75
5	ALD	65	70
6	ELT	50	55
7	EKS	55	60
8	FST	65	70
9	FJS	60	65
10	FBR	65	70
11	IDR	50	60
12	JHR	55	60

13	JMR	70	75
14	LNA	65	70
15	LST	60	65
16	MST	55	60
17	MRW	50	55
18	NRB	65	70
19	RTA	60	65
20	RKA	65	70
21	RNI	55	60
22	RZL	50	55
23	RHN	60	65
24	SSK	50	60
25	STM	65	70
26	SRD	60	65
27	SWN	60	70
28	SPR	65	70
29	SRN	50	60
30	SHL	60	65
31	SHD	65	70
32	SFH	60	65
33	SLH	50	60
34	TBI	60	65
35	TNA	60	65
	Σ	2090	2285

Mean of pre-test:

$$X = \frac{\sum X}{N} = \frac{2090}{35} = 59{,}71$$

Mean of post-test:

$$M_2 = \frac{\sum X_2}{N_2} = \frac{2285}{35} = 65{,}28$$

Based on explanation above, it shows that the result of control class did not have significant improvement. It seen from the average score of pre-test and post-test, that is 59.71 and 65.28. it caused the control class did not learn using metacognitive strategies such as in experimental class.

B. Data Analysis

After getting data from the post test score of the two classes, then the researcher analyzed it by using t-test. The formula as follow:

$$to = \frac{M_1 - M_2}{\sqrt{\dfrac{\left(\sum x_1^2 + \sum x_2^2\right)\left(N_1 + N_2\right)}{\left(N_1 + N_2 - 2\right)\left(N_1 \cdot N_2\right)}}}$$

M_1	= Mean score of the data experiment class
M_2	= Mean score of the data control class
$\sum x_1^2$	= Sum of square deviation of experiment class
$\sum x_2^2$	= Sum of square deviation of control class
N_1	= Samples of students of experiment class
N_2	= Samples of students of control class
df	= degree of freedom
df	= $N_1 + N_2 - 2$

$$M_1 = \frac{\sum X_1}{N_1} \qquad M_2 = \frac{\sum X_2}{N_2}$$

$$X_1 = X_1 - M_1$$

$$X_2 = X_1 - M_2$$

$$df = N_1 + N_2 - 2$$

1) Determaining mean distribution score of both variables with using:

   $MX = MX_1 - MX_2$ and $MY = MY_1 - MY_2$

   $_= 65 - 40$ $= 90 - 65$

   $= 25$ $= 25$

2) Make calculation score

Table III

The calculation score of each students in experimental and control class

No	X_1	X^2	$X_1 = (M_1 - X_1)$	$X_2 (M_2 - X^2)$	$X_1{}^2$	$X_2{}^2$
1	80	65	-3.43	0.28	11.7649	0.0784
2	75	70	-1.57	-4.72	2.4649	22.2784
3	80	70	-3.43	-4.72	11,7649	22.2784
4	70	75	6.57	-9.72	43.1649	94.4784
5	80	70	-3.43	-4.72	11.7649	22.2784
6	75	55	-1.57	10.28	2.4649	105.6784
7	80	60	-3.43	5.28	11.7649	27.8784
8	70	70	6.57	-4.72	43.1649	22.2784
9	85	65	-8.43	0.28	71.0649	0.0784
10	70	70	6.57	-4.72	43.1649	22.2784
11	75	60	-1.57	5.28	2.4649	27.8784

12	70	60	6.57	5.28	43.1649	27.8784
13	75	75	-1.57	-9.72	2.4649	94,4784
14	80	70	-3.43	-4.72	11.7649	22.2784
15	90	65	-13.48	0.28	181.7104	0.0784
16	75	60	-1.57	5.28	2.4649	27.8784
17	70	55	6.57	10.28	43.1649	105.6784
18	65	70	11.57	-4.72	133.8649	22.2784
19	90	65	-13.48	0.28	181.7104	0.0784
20	75	70	-1.57	-4.72	2.4649	22.2784
21	70	60	6.57	5.28	43.1649	27.8784
22	70	55	6.57	10.28	43.1649	105.6784
23	80	65	-3.43	0.28	11.7649	0.0784
24	90	60	-13.48	5.28	181.7104	27.8784
25	70	70	6.57	-4.72	43.1649	22.2784
26	85	65	-8.43	0.28	71.0649	0.0784
27	80	70	-3.43	-4.72	11.7649	22.2784
28	75	70	-1.57	-4.72	2.4649	22.2784
29	70	60	6.57	5.28	43.1649	27.8784
30	80	65	-3.43	0.28	11.7649	0.0784
31	85	70	-8.43	-4.72	71.0649	22.2784
32	75	65	-1.57	0.28	2.4649	0.0784
33	70	60	6.57	5.28	43.1649	27.8784
34	80	65	-3.43	0.28	11.7649	0.0784
35	75	65	-1.57	0.28	2.4649	0.0784
∑	2680	2285			1451,908	997,144
Mean	76,57	65,28				

Based on the data above is known that:

$\sum X_1 = 2680$ $\qquad\qquad$ $\sum X_1{}^2 = 1451,908$

$\sum X_2 = 2285$ $\qquad\qquad$ $\sum X_2{}^2 = 997,144$

To known the differences of the effect of metacognitive strategy on students speaking ability between the score post test in experiment class (X_1) and score post test in control class (X_2) are used the strategy of t-Test as follow:

$$M_1 = \frac{\sum X_1}{N} \qquad\qquad M_2 = \frac{\sum X_2}{N}$$

$$= \frac{2680}{35} \qquad\qquad = \frac{2285}{35}$$

$$= 76,57 \qquad\qquad = 65.28$$

$$to = \frac{M_1 - M_2}{\sqrt{\dfrac{\left(\sum x_1^2 + \sum x_2^2\right)\left(N_1 + N_2\right)}{\left(N_1 + N_2 - 2\right)\left(N_1 \cdot N_2\right)}}}$$

$$= \frac{76.57 - 59.71}{\sqrt{\dfrac{(1451,908 + 997,144)(35 + 35)}{(35 + 35 - 2)(35 \cdot 35)}}}$$

$$= \frac{16,86}{\sqrt{\dfrac{(2449,052)(70)}{(68)(1225)}}}$$

$$= \frac{16,86}{\sqrt{36,01 x 0.05}}$$

$$= \frac{16,86}{\sqrt{1,80}}$$

$$= \frac{16{,}86}{1.35}$$

$= 12{,}48$

$DF = N_{1} + N_{2} - 2$

$\quad = 35{+}35{-}2$

$\quad = 68$

$\quad = 2.00$

So, t_{table} for significance 5%=2.00

Based on calculation above is known that t_{table} with sgnificance 5%=2.00. So $t_{observation} = 12{,}48 > t_{table} = 2.00$. it is concluded that the researcher rejected $H_{o} : t_{o} < t_{t}$: it means there is no significant effect of using metacognitive strategies in speaking comprehension on investigating an issue and acccepted $H_{a} : t_{o} > t_{t}$: it means there is significant effect of metacognitive strategy on students speaking ability.

C. Hypothesis Testing (t-test)

To test the hypothesis the data obtained from both pre test and post test are analyzed and calculated by using t-test formula. From the result of the calculation. It obtained the value of the test t_{o} 12,48.

The researcher uses the degree of significance of the table of 5%. In the table of significance it can be seen that one the df=68 and the degree of significance is 2.00, comparing the t_{o} with the value of the degree of significance, the result $It_{count} = 12{,}48 > t_{table} = 2.00$. Since t_{o} score obtained from the result of calculating, the alternative hyphotesis (H_{a}) is accepted and the null hyphotesis (H_{o}) is rejected.

D. Interpretation Data

From the result of pre test and post test in experiment class, the researcher can be concluded from the lowest score in pre test is 40 and and the highest n pre test score n pre test is 65. After the researcher conduct treatment investigating an issue by using metacognitive strategy and also conduct post test. The lowest score in post test is 65 and the highest score in post test is 90.

The researcher make the analysis of item test, the problem of students when they are speak and try to invetigating an issue is they difficult to understanding. The researcher decides to result of hyphothesis and proposed interpretation towards t_o with procedure as follow:

a) H_a : $t_o > t_t$ = it means there is signficant effect of metacognitive strategy on students speaking ability.

b) H_o : $t_o < t_t$ = it means there is no significant effect of effect of metacognitive strategy on students speaking ability.

According to the data, the value of t_o ($t_{observation}$) is higher than t_t (t_{table}) 12,48>2.00

CHAPTER V
CONCLUSION AND SUGGESTION

A. Conclusion

Based on the research finding that was presented in the previous chapter the researcher would like to give some conclusion as follow:

1. The students ability student's speaking ability at the eleventh grade of SMAN 1 Pamarayan, when the researcher takes this research about students effect metacognitive strategy on students' speaking ability, at the eleventh grade of SMAN 1 Pamarayan. The student have difficulties in speaking english. It can be seen from the score of pre test that show many students get bad score. However, the student can increase their speaking comprehension after got treatments. From the result of pre test and post test in experiment class, the researcher can be concluded from the lowest score in pre test is 40 and and the highest n pre test score n pre test is 65. After the researcher conduct treatment investigating an issue by using metacognitive strategy and also conduct post test. The lowest score in post test is 65 and the highest score in post test is 90.

2. The application of metacognitive strategy in teaching speaking Ability at the eleventh grade of SMAN 1 Pamarayan are Identifying "what you know" and "what you do not know" Start the interview activities, students need to make conscious decisions about their knowledge. By investigating an issue, students will verify,and develop, or change their initial statements with accurate information.Talk about thinking

(Talking about thinking) During the planning and solving problems, teachers should "speak the mind", so that students can join to demonstrate the thought process. Investigating an issue is another useful strategy in this step. A students' talk about a problem, describing the thinking, while listening to his partner and asked to help clarify the thinking process. Keep a journal thinking (thinking keeping journal) Another way to develop metacognition is through the use of a journal or notes to learn. The journal is in the form of a diary in which each student reflect on their thinking, make notes about their awareness of ambiguity (ambiguities) and inconsistencies, and comment on how they deal / face difficulties.Make a plan and self-regulati on Students should begin work by increasing responsibility for planning and regulating their learning. Difficult for the learners become capable of self-regulating (self-directed) when learning is planned and monitored by others.Report back the process of thinking (thinking Debriefing process) Last activity is focused discussions on the thought process students to develop an awareness of strategies that can be applied to other learning situations. Three-step method may be used; First: teachers lead students to review the activities, gathering data about the process of thinking; Second: classifying groups related ideas, identify strategies used; Third: they evaluate success, discard strategies that are not appropriate, identify strategies that can be used later, and the search for alternative approaches are promising.Self-evaluation (self-evaluation)Directing the experiences of self-evaluation can be initiated through

individual meetings and lists that focus on the process of thinking. Gradually, self-evaluation will be more widely applied independently.

3. the effect of metacognitive strategies   Based on the result of analysis about the the effect of metacognitive strategy on students' speaking ability. It was known that t_{table} significance 5% and $t_{observation} = 12,48 > t_{table}$ 2.00, so H_o is rejected and H_a is accepted. It means that using metacognitive strategy had significant effect in learning student on investigation an issue.

B. Suggestion

According to the conclusion above, the researcher would give some suggestion as follow:

1. The teacher must be creative in developing English learning process in the classroom in order to make students more interested in learning English and mastery the material well.

2. Metacognitive strategy can add the knowledge of the teacher in using strategy in teaching speaking comprehension.

3. To increasing students ability on speaking, the teacher should be more attention towords students need and student ability in English learning in the classroom, and the teacher should be used strategy or approach in learning process and make students fun and more interest in learning speaking comprehension on metacognitive strategy.

4. The student must study hard to increase their speaking comprehension and must not be afraid of doing wrong when they are learning and practicing the language, especially in speaking comprehension.