CHAPTER IV
RESEARCH FINDING AND ANALYSIS

A. Description of the Research

The description of this research described that there were different result between experimental class which was taught by using *Table-chart* and control class which was not taught by using *Table-chart* in grammar achievement of Simple Future Tense. The research was conducted in MTs AL-ASROR which is located at Jalan Legoksari Raya No. 2 Patemon Gunungpati Semarang on second semester with the eighth grade students in the academic year of 2010/ 2011.

The activity of the research started on January 10th 2011 by choosing the sample used cluster random sampling. To get the representative sample, the researcher wrote the names of the classes on small piece of paper. And then, the papers were rolled and put into a slot of box. The last, the writer got class VIII C which consisted 38 students as try-out group, class VIII A which consisted of 40 students was as experimental group, and class VIII B which consisted of 40 students was as control group. The number of students was gain from the documentation of the related school by the help of the English teacher.

The documentation presented syllabus, lesson plan, sketch of the school, organization structure of the official, the number of students' development, and teachers' name list which were related the researcher's need to be done the research in the academic year of 2010/ 2011.

Before items were given to the students, the writer gave tryout test for try-out class on January 19th 2011 to analyze validity, reliability, difficulty level and also the discrimination power of each item. The researcher prepared 30 items as the instrument of the test. Test was given to know the validity, reliability, degree of test difficulty, and discriminating power of test items of try-out test in control class that was provided by the writer.

In this research finding of try out test, the researcher used *product-moment* formula to analyze validity. The researcher applied the *spearman-brown* formula which was combined with *product- moment* formula to analyze reliability instrument. The degree of test difficulty used difficulty level formula by considered five levels of difficulty. The last analysis of try-out test was discriminating power by divided into two groups; lower group and upper group which consist of 19 students in each groups.

The writer gave pre-test on January 24th 2011 in control group and January 26th 2011 in experimental students. The questions consisted of 20 items were stated valid according to try-out analysis. After giving pre-test, the writer determined the materials and lesson plans of learning activities. Pre-test conducted to both groups to know that two groups were normal and homogeny.

After knowing the control group and experimental group had same variant. The writer conducted treatment in experimental class twice in week for 40 minutes each meeting. The first treatment conducted on January 28th 2011 and the second treatment conducted on February 1st 2011 by using a medium of *Table-chart* which appropriate to teach Simple Future Tense because simple and memorable to interpret and map-out how the formula could be constructed and understood easily by the students.

There were some activities in experimental group using *Table-chart* to teach Simple Future Tense:

1. The teacher asked the students “what *will* you do in the next holiday?”
2. The teacher explained the material and formula of Simple Future Tense using a medium of *Table-chart* was like created on the black board.
3. The teacher divided students into some groups which consisted of five members for each group.
4. The teacher filled column of *Table-chart* by simple words based on their planning actions.

5. The students had to complete the columns by simple words according what they will do next holiday on their worksheet.
6. The Teacher gave some examples to change the simple words into affirmative, negative, and interrogative sentences based on *Table-chart* were written on the black board.
7. The volunteer group practiced the activities in front of the class in using *Table-chart* was like the teacher.
8. The teacher asked member of volunteer group completed the columns in white board and ask him to point other friends to change the simple words based on *Table-chart* was prepared into affirmative, negative, and interrogative sentences.
9. Every student had to create the Table Chart according their planning actions in the students' work sheet and prepared to present if chosen in front of the class.
10. The groups which changed the sentences into affirmative, negative and interrogative in the first time, they became the winner and got the reward. For the other groups had to make five sentences of Simple Future Tense for ten minutes as punishment.

The control group was not taught using *Table-chart*; just explaining the material orally based on the teacher's lesson plan without gave variation in learning process. The teacher also asked the students just to do the assignment until their felt bored in the class. The teaching also conducted twice a week on January 29th 2011 and February 2nd 2011 for 40 minutes for each meeting.

The evaluation of the research found some obstacles in teaching and learning process in control class. The first was this experimental research conducted after time of school was run out, so the students felt bad mood to build the better atmosphere because the other classes went home. Moreover, the students were hungry which gave bad affect to concern into the material which was given by the teacher. The students in experimental class also felt bored in beginning of teaching and learning atmosphere, but their got a great potential to build creativity and could accept materials of the lessons easily in

warm atmosphere of the classroom using medium of *Table-chart* in process of teaching and learning.

From the different situation, the researcher evaluated that the research should be conducted in time of the school, so the better result would be gained and in teaching and learning process. The teacher also had to know the names of the students because thy laughed if the teacher pointed some students to do the assignment in front of class, and they didn't do the teacher's instruction. This evaluation was done in the second meeting of teaching in control class and giving treatment in experimental class and could be as reference on the other occasion of the future teaching.

After gave treatments in experimental group and conventional teaching in control group, the writer gave post-test which consisted 20 test items which might finished on 30 minutes. Giving post test on January 4th 2011 both experimental group and control group.

From the post-test could be known that there were significant result between control group and experimental group by hypothesis test which showed the value of t-test is higher than t-table. It could be seen on the value of t-test is 7.10 while the critical value on $t_{s0,05}$ is 1.98, so the hypothesis is accepted. It meant that using a medium of *Table-chart* in teaching Simple Future Tense is effective and gave good result in teaching and learning process because the students felt interesting study in the classroom.

B. The Data Analysis and Test of Hypothesis

1. The Data Analysis

a. The Data Analysis of Try-out Finding

This discussion covered validity, reliability, level of difficulty and discriminating power.

1) Validity of Instrument

As mentioned in chapter III, validity refers to the precise measurement of the test. In this study, item validity was used to know the index validity of the test. To know the validity of

instrument, the writer used the Pearson product moment formula to analyze each item.

It was obtained that from 30 test items; there were 21 test items which were valid and 9 test items which were invalid. They were on number 2, 7, 12, 16, 17, 21, 23, 25, 27. They were invalid with the reason the computation result of their r_{xy} value (the correlation of score each item) was lower than their r_{table} value.

The following was the example of item validity computation for item number 1 and for the other items would use the same formula.

N = 38 $\quad\quad \sum Y = 762$

$\sum XY = 557 \quad\quad \sum X^2 = 676$

$\sum X = 26 \quad\quad \sum Y^2 = 16076$

$$r_{xy} = \frac{N\sum XY - \sum(X)\sum(Y)}{\sqrt{\left\{N\sum X^2 - \left(\sum X\right)^2\right\}\left\{N\sum Y^2 - \left(\sum Y\right)^2\right\}}}$$

$$r_{xy} = \frac{38(557) - 26(762)}{\sqrt{\left\{38(26) - (26)^2\right\}\left\{38(16076) - (762)^2\right\}}}$$

$$r_{xy} = \frac{21166 - 19812}{\sqrt{(988 - 676)(610888 - 580644)}}$$

$$r_{xy} = \frac{1354}{\sqrt{9436123}}$$

$$r_{xy} = \frac{1354}{3071{,}82}$$

$$r_{xy} = 0{,}44078104$$

From the computation above, the result of computing validity of the item number 1 was 0.44078104. After that, the writer consulted the result to the table of r Product Moment with

the number of subject (N) = 38 and significance level 5% it was 0.320. Since the result of the computation was higher than r in table, the index of validity of the item number 1 was considered to be valid. The list of the validity of each item can be seen in appendix 4.

2) Reliability of Instrument

A good test must be valid and reliable. To get the coefficient of correlation, the writer applied the *product-moment* formula and then continued to the *spearman-brown* formula. The formula of product moment as follow:

Before computing the reliability, the writer had to compute *product moment* formula (r_{xy}) with the formula below:

N = 38 $\quad\quad$ $\sum XY = 3951$

$\sum Y = 395$ $\quad\quad$ $\sum X^2 = 3855$

$\sum Y^2 = 4319$ $\quad\quad$ $\sum X = 367$

$$r_{xy} = \frac{N\sum XY - \sum(X)\sum(Y)}{\sqrt{\left\{N\sum X^2 - \left(\sum X\right)^2\right\}\left\{N\sum Y^2 - \left(\sum Y\right)^2\right\}}}$$

$$r_{xy} = \frac{38(3951) - (367)(395)}{\sqrt{\left\{38(3855) - (367)^2\right\}\left\{38(4319) - (395)^2\right\}}}$$

$$r_{xy} = \frac{150138 - 144965}{\sqrt{(146490 - 134689)(164122 - 156025)}}$$

$$r_{xy} = \frac{5173}{\sqrt{95552697}}$$

$$r_{xy} = \frac{5173}{9775{,}10}$$

$$r_{xy} = 0{,}529201$$

After finding *product moment* formula (r_{XY}) the computation was continued to the *spearman-brown* formula as follow:

$$r_{11} = \frac{2 \times r_{xy}}{1 + r_{xy}}$$

$$r_{11} = \frac{2 \times 0{,}529201}{1 + 0{,}529201}$$

$$r_{11} = \frac{1{,}058402}{1{,}529201}$$

$$r_{11} = 0{,}692128$$

From the computation above, it was found out that r_{11} (the total of reliability test) was 0.692128 whereas the number of subjects was 38 and the critical value for r-table with significance level 5% was 0.320. Thus, the value resulted from the computation was higher than its critical value. It could be concluded that the instrument used in this research was reliable.

3) The level of Difficulty

The following was the computation of the level difficulty for item number 1 and for the other items would use the same formula.

R = 17+9=26

N = 38

$$FV = \frac{R}{N}$$

$$FV = \frac{26}{38}$$

$$FV = 0{,}68$$

It was proper to say that the index difficulty of the item number 1 above can be said as the medium category, because the calculation result of the item number 1 was in the interval $0.30 \leq FV \leq 0.70$

After computing 30 items of the try-out test, there were 17 items were considered to be medium, 12 items were considered easy, and 1 item was difficult.

4) The Discriminating Power

The discrimination power of an item indicated the extent to which the item discriminated between the testees, separating the more able testees from the less able. The index of discriminating power told us whether those students who performed well on the whole test tended to do well or badly on each item in the test. To do this analysis, the number of try-out subjects was divided into two groups, upper and lower groups. They were upper and lower group.

Table 1

The Table of Discriminating Power of Item Number 1

Upper Group			Low Group		
No	Code	Score	No	Code	Score
1	T-8	1	1	T-9	0
2	T-27	0	2	T-4	0
3	T-31	1	3	T-19	1
4	T-32	1	4	T-20	0
5	T-38	1	5	T-37	1
6	T-3	1	6	T-36	1
7	T-13	1	7	T-2	1
8	T-18	1	8	T-22	1
9	T-25	1	9	T-10	0
10	T-35	1	10	T-5	0
11	T-28	1	11	T-15	1
12	T-29	1	12	T-16	0
13	T-34	1	13	T-17	0
14	T-21	1	14	T-7	0
15	T-26	0	15	T-30	0
16	T-33	1	16	T-1	1
17	T-11	1	17	T-14	1
18	T-24	1	18	T-12	1
19	T-26	1	19	T-23	0
Sum		17	Sum		9

T : Try Out Student

The following was the computation of the discriminating power for item number 1, and for other items would use the same formula.

This was the analysis of discriminating power for item number 1:

n =19

U=17

L=9

$$D = \frac{Correct\ U - Correct\ L}{n}$$

$$D = \frac{17 - 9}{19}$$

$$D = \frac{8}{19}$$

$$D = 0{,}4210526$$

According to the criteria, the item number 1 above was good category, because the calculation result of the item number 1 was in the interval $0.40 \leq D \leq 0.70$.

After computing 30 items of try –out test and after being consulted to the discriminating power category, there were 6 items were considered to be good, 15 items were enough good (medium), 5 items were poor, and 4 items were very poor.

The result of the discriminating power of each item could be seen in appendix 4.

Based on the analysis of validity, reliability, difficulty level, and discriminating power, finally 20 items were accepted to be used in pre test and post test activity. They were number 1, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 18, 19, 20, 22, 24, 26, 28, 29, and 30.

b. The Data Analysis of Pre-test Value of the Experimental class and the Control Class.

Table 2

The list of Pre-test Value of the Experimental and Control Class

No	Experimental class					Control class		
	Code of the students	x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	Code of the students	x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
1	E – 4	75	17.25	297.56	C – 4	75	18	324
2	E – 22	70	12.25	150.06	C – 7	70	13	169
3	E – 27	65	7.25	52.56	C – 17	65	8	64
4	E – 29	65	7.25	52.56	C – 24	65	8	64
5	E – 37	65	7.25	52.56	C – 5	65	8	64
6	E – 28	65	7.25	52.56	C – 14	65	8	64
7	E – 30	65	7.25	52.56	C – 18	65	8	64
8	E – 33	65	7.25	52.56	C – 19	60	3	9
9	E – 40	60	2.25	5.06	C – 21	60	3	9
10	E – 11	60	2.25	5.06	C – 26	60	3	9
11	E – 5	60	2.25	5.06	C – 27	60	3	9
12	E – 10	60	2.25	5.06	C – 28	60	3	9
13	E – 12	60	2.25	5.06	C – 39	60	3	9
14	E – 15	60	2.25	5.06	C – 11	60	3	9
15	E – 16	60	2.25	5.06	C – 16	60	3	9
16	E – 18	60	2.25	5.06	C – 29	60	3	9
17	E – 23	60	2.25	5.06	C – 36	60	3	9
18	E – 32	60	2.25	5.06	C – 37	60	3	9
19	E – 34	60	2.25	5.06	C – 2	55	-2	4
20	E – 35	60	2.25	5.06	C – 6	55	-2	4
21	E – 2	60	2.25	5.06	C – 8	55	-2	4
22	E – 7	55	-2.75	7.56	C – 10	55	-2	4
23	E – 39	55	-2.75	7.56	C – 12	55	-2	4
24	E – 8	55	-2.75	7.56	C – 15	55	-2	4
30	E – 9	55	-2.75	7.56	C – 30	55	-2	4
26	E – 1	55	-2.75	7.56	C – 32	55	-2	4
27	E – 19	55	-2.75	7.56	C – 35	55	-2	4
28	E – 20	55	-2.75	7.56	C – 40	55	-2	4
29	E – 21	55	-2.75	7.56	C – 1	55	-2	4
30	E – 25	55	-2.75	7.56	C – 3	55	-2	4
31	E – 31	55	-2.75	7.56	C – 13	55	-2	4
32	E – 17	55	-2.75	7.56	C – 22	50	-7	49
33	E – 3	55	-2.75	7.56	C – 25	50	-7	49

34	E – 6	50	-7.75	60.06	C – 31	50	-7	49
35	E – 13	50	-7.75	60.06	C – 38	50	-7	49
36	E – 26	50	-7.75	60.06	C – 9	50	-7	49
37	E – 38	50	-7.75	60.06	C – 33	50	-7	49
38	E – 24	50	-7.75	60.06	C – 34	50	-7	49
39	E – 36	45	-12.75	162.56	C – 20	45	-12	144
40	E – 14	40	-17.75	315.06	C – 23	40	-17	289
$\sum$		2310	0.00	1697.4		2280	0.00	1740
$\bar{x}$		57.75				57		

1) The Normality Pre-test of the Experimental Class

The normality test was used to know whether the data obtained was normally distributed or not. Based on the table above, the normality test:

Hypothesis:

Ha: The distribution list was normal.

Ho: The distribution list was not normal

Test of hypothesis:

The formula was used:

$$X^2 = \sum_{i=1}^{k} \frac{(O_i - E_i)^2}{E_i}$$

The computation of normality test:

Maximum score = 75 N = 40

Minimum score = 40 Range = 35

K / Number of class = 6 Length of the class = 6

$\sum x$ = 2310 $\bar{x}$ = 57.75

S = 6.597

Table 3
Frequency Distribution Pre test of the Experimental class

x_i	f_i	$f_i\ x_i$	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	$f_i(x_i - \bar{x})^2$
40	1	40	-17.75	315.06	315.06
45	1	45	-12.75	162.56	162.56
50	5	250	-7.75	60.06	300.3
55	12	660	-2.75	7.56	90.72
60	13	780	2.25	5.06	65.78
65	6	390	7.25	52.56	315.36
70	1	70	12.25	150.06	150.06
75	1	75	17.25	297.56	297.56
$\sum$	40	2310			1697.4
$S = \sqrt{\frac{\sum f_i (x_i - \bar{x})^2}{n-1}} = \sqrt{\frac{1697.4}{40-1}} = 6.597$					

Table 4

Normality Pre test of the Experimental Class

Class interval	Limit class	Z for the limit class	Opportu -nities Z	Size classes for Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	39.5	-2.77	0.497				
40 - 45				0.028	1.12	2	0.571
	45.5	-1.86	0.469				
46 - 51				0.140	5.6	5	0.064
	51.5	0.95	0.329				
52 - 57				0.313	12.52	12	0.022
	57.5	-0.04	0.016				
58 - 63				0.292	11.68	13	0.149
	63.5	0.87	0.308				
64 - 69				0.155	6.2	6	0.006
	69.5	1.78	0.463				
70 - 75				0.033	1.32	2	0.350
	75.5	2.69	0.496				
The result of computation Chi–Square/ X^2							1.162

With α = 5% and dk = 6-3=3, from the chi-square distribution table, obtained X_{table} = 7.81. Because X^2_{count} was lower than X^2_{table} (1.16<7.81). So, the distribution list was normal.

2) The Normality Pre-Test of the Control Class

Hypothesis :

Ho: The distribution list was normal.

Ha: The distribution list was not normal.

Test of hypothesis:

The formula was used:

$$X^2 = \sum_{i=1}^{k} \frac{(O_i - E_i)^2}{E_i}$$

The computation of normality test:

Maximum score	= 75	N	= 40
Minimum score	= 40	Range	= 35
K/ Number of class	= 6	$\sum x$	= 2074
Length of the class	= 6	$\bar{x}$	= 57
S	= 6.679		

Table 5

Frequency Distribution Pre test of Control Class

x_i	f_i	$f_i\ x_i$	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	$f_i(x_i - \bar{x})^2$
40	1	40	-17	289	289
45	1	45	-12	144	144
50	7	350	-7	49	343
55	13	715	-2	4	52
60	11	660	3	9	99
65	5	325	8	64	320
70	1	70	13	169	169
75	1	75	18	324	324
$\sum$	40	2280			1740
$S = \sqrt{\frac{\sum f_i (x_i - \bar{x})^2}{n-1}} = \sqrt{\frac{1740}{40-1}} = 6.679$					

Table 6

Normality Pre test of the Control Class

Class interval	Limit class	Z for the limit class	Opportu -nities Z	Size classes for Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	39,5	-2.62	0.496				
40 – 45				0.039	1.56	2	0.124
	45,5	-1.72	0.457				
46 – 51				0.164	6.56	7	0.030
	51,5	-0.82	0.294				
52 – 57				0.266	10.64	13	0.523
	57,5	0.07	0.028				
58 – 63				0.307	12.28	11	0.133
	63,5	0.97	0.334				
64 – 69				0.135	5.4	5	0.030
	69,5	1.87	0.469				
70 – 75				0.028	1.12	2	0.691
	75,5	2.77	0.497				
The result of computation Chi-Square / X^2							1.531

With α = 5% and dk = 6-3 = 3, from the chi-square distribution table, obtained X_{table} = 7.81. Because X^2_{count} was lower than X^2_{table} (1.53< 7.81). So, the distribution list was normal.

3) The Homogeneity Pre-Test of the Experimental Class and Control Class

Hypothesis :

$H_o : \sigma_1^2 = \sigma_2^2$

$H_A : \sigma_1^2 \neq \sigma_2^2$

Test of hypothesis:

The formula was used:

$$F = \frac{Biggest\ \text{var}\, iant}{smallest\ \text{var}\, iant}$$

The Data of the research:

σ_1^2 = 43.52 n_1 = 40

σ_2^2 = 44.62 n_2 = 40

$$\sigma_1^2 = S_1^{\,2} = \frac{\sum (x - \bar{x})^2}{n_1 - 1} = \frac{1697.4}{39} = 43.52$$

$$\sigma_2^2 = S_2^{\,2} = \frac{\sum (x - \bar{x})^2}{n_2 - 1} = \frac{1740}{39} = 44.62$$

Biggest variant (Bv) = 44.62

Smallest variant (Sv) = 43.52

n_1 = 40

n_2 = 40

Based on the formula, it was obtained:

$$F = \frac{44.62}{43.52} = 1.03$$

With α = 5% and dk = (40-1 = 39): (40-1 = 39), obtained F_{table} = 1.69. Because F_{count} was lower than F_{table} (1.03 < 1.69). So, Ho was accepted and the two groups have same variant / **homogeneous.**

4) The average similarity Test of Pre-Test of Experimental and Control Classes

Hypothesis:
Ho: $\mu_1 = \mu_2$
Ha: $\mu_1 \neq \mu_2$

Test of hypothesis:

Based on the computation of the homogeneity test, the experimental class and control class had same variant.

The formula was used:

$$F = \frac{Biggest\ \text{var}\ iant}{smallest\ \text{var}\ iant}$$

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \qquad S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

The data of the research:

$\overline{x_1}$ = 57.75	$\overline{x_2}$ = 57
S_1^2 = 43.52	S_2^2 = 44.62
n_1 = 40	n_2 = 40

$$S = \sqrt{\frac{(n_1 - 1)S_1^{\ 2} + (n_2 - 1)S_2^{\ 2}}{n_1 + n_2 - 2}}$$

$$S = \sqrt{\frac{(40-1)43.52 + (40-1)44.62}{40 + 40 - 2}} = 6.64$$

So, the computation t-test:

$$t = \frac{\overline{x_1} - \overline{x_2}}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = \frac{57.75 - 57}{6.64\sqrt{\frac{1}{40} + \frac{1}{40}}} = 0.505$$

With α = 5% and dk = 40 + 40 – 2 = 78, obtained t_{table} =1.98. Because t_{count} was lower than t_{table} (0.505<1.98). So, Ho was accepted and there was no difference of the pre test average value from both groups.

c. The Data Analysis of Post-test Scores in Experimental Class and Control Class.

Table 7

The list of Post-test Value of the Experimental and Control Class

No	Experiment class					Control class		
	Code of the students	x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	Code of the students	x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$
1	E – 21	95	17.5	306.25	C – 39	85	17.75	315.06
2	E – 37	95	17.5	306.25	C – 4	75	7.75	60.06
3	E – 4	85	7.5	56.25	C – 5	75	7.75	60.06
4	E – 10	85	7.5	56.25	C – 7	75	7.75	60.06
5	E – 29	85	7.5	56.25	C – 15	75	7.75	60.06
6	E – 32	85	7.5	56.25	C – 8	75	7.75	60.06
7	E – 30	85	7.5	56.25	C – 14	70	2.75	7.56
8	E – 33	80	2.5	6.25	C – 17	70	2.75	7.56
9	E – 34	80	2.5	6.25	C – 26	70	2.75	7.56
10	E – 6	80	2.5	6.25	C – 27	70	2.75	7.56
11	E – 7	80	2.5	6.25	C – 19	70	2.75	7.56
12	E – 9	80	2.5	6.25	C – 24	70	2.75	7.56
13	E – 11	80	2.5	6.25	C – 30	70	2.75	7.56
14	E – 20	80	2.5	6.25	C – 36	70	2.75	7.56
15	E – 22	80	2.5	6.25	C – 38	70	2.75	7.56
16	E – 27	80	2.5	6.25	C – 18	70	2.75	7.56
17	E – 28	80	2.5	6.25	C – 21	70	2.75	7.56
18	E – 31	80	2.5	6.25	C – 28	70	2.75	7.56
19	E – 38	80	2.5	6.25	C – 29	70	2.75	7.56
20	E – 39	80	2.5	6.25	C – 35	65	-2.25	5.06
21	E – 5	75	-2.5	6.25	C – 2	65	-2.25	5.06
22	E – 12	75	-2.5	6.25	C – 10	65	-2.25	5.06
23	E – 17	75	-2.5	6.25	C – 11	65	-2.25	5.06
24	E – 23	75	-2.5	6.25	C – 12	65	-2.25	5.06
30	E – 40	75	-2.5	6.25	C – 16	65	-2.25	5.06
26	E – 26	75	-2.5	6.25	C – 31	65	-2.25	5.06
27	E – 8	75	-2.5	6.25	C – 32	65	-2.25	5.06
28	E – 13	75	-2.5	6.25	C – 37	65	-2.25	5.06
29	E – 14	75	-2.5	6.25	C – 6	65	-2.25	5.06
30	E – 15	75	-2.5	6.25	C – 1	65	-2.25	5.06
31	E – 18	75	-2.5	6.25	C – 3	65	-2.25	5.06
32	E – 19	75	-2.5	6.25	C – 9	65	-2.25	5.06
33	E – 25	70	-7.5	56.25	C – 13	65	-2.25	5.06

34	E – 35	70	-7.5	56.25	C – 20	60	-7.25	52.56
35	E – 1	70	-7.5	56.25	C – 22	60	-7.25	52.56
36	E – 3	70	-7.5	56.25	C – 23	60	-7.25	52.56
37	E – 16	70	-7.5	56.25	C – 25	60	-7.25	52.56
38	E – 25	70	-7.5	56.25	C – 33	60	-7.25	52.56
39	E – 2	65	-12.5	156.25	C – 34	60	-7.25	52.56
40	E – 36	60	-17.5	306.25	C – 40	50	-17.25	297.56
$\sum$		3100	0.00	1850		2690	0.00	1397.4
$\bar{x}$		77.5				67.25		

1) The Normality Post-Test of the Experimental Class

Based on the table above, the normality test:

Hypothesis :

Ho : The distribution list was normal.

Ha : The distribution list was not normal.

Test of hypothesis:

The formula was used:

$$\chi^2 = \sum_{i=1}^{k} \frac{(O_i - E_i)^2}{E_i}$$

The computation of normality test:

Maximum score	= 95	Range	= 35
Minimum score	= 60	N	= 40
K/ Number of class	= 6	Length of the class	= 6
$\sum x$	= 3100	$\bar{x}$	= 77.5
S	= 6.887		

Table 8

Frequency Distribution of the Experimental Class

x_i	f_i	$f_i\ x_i$	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	$f_i(x_i - \bar{x})^2$
60	1	60	-17.5	306.25	306.25
65	1	65	-12.5	156.25	156.25
70	6	420	-7.5	56.25	337.5
75	12	900	-2.5	6.25	75
80	13	1040	2.5	6.25	81.25
85	5	425	7.5	56.25	281.25
95	2	190	17.5	306.25	612.5
$\sum$	40	3100			1850
$S = \sqrt{\frac{\sum f_i (x_i - \bar{x})^2}{n-1}} = \sqrt{\frac{1850}{40-1}} = 6.887$					

Table 9

Normality Post test of the Experimental Class

Class interval	Limit class	Z for the limit class	Opportu -nities Z	Size classes for Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	59.5	-2.61	0.496				
60 – 65				0.037	1.48	2	0.183
	65.5	-1.74	0.459				
66 – 71				0.151	6.04	6	0.000
	71.5	-0.87	0.308				
72 – 77				0.308	12.32	12	0.008
	77.5	0.00	0.000				
78 – 83				0.308	12.32	13	0.038
	83.5	0.87	0.308				
84 – 89				0.151	6.04	5	0.179
	89.5	1.74	0.459				
90 – 95				0.037	1.48	2	0.183
	95,5	2.61	0.496				
The result of computation Chi-Square / X^2							0.591

With α = 5% and dk = 6-3=3, from the chi-square distribution table, obtained X_{table} = 7.81. Because X^2_{count} was lower than X^2_{table} (0.59< 7.81). So, the distribution list was normal.

2) The Normality Post-Test of the Control Class

Hypothesis:

Ho : The distribution list was normal

Ha : The distribution list was not normal

Test of hypothesis:

The formula was used:

$$\chi^2 = \sum_{i=1}^{k} \frac{(O_i - E_i)^2}{E_i}$$

The computation of normality test:

Maximum score = 85 Range =35

Minimum score = 50 N = 40

K / many class interval = 6 Length of the class = 6

$\sum x$ = 2690 $\bar{x}$ = 67.25

S = 5.986

Table 10

Frequency Distribution the Control Class

x_i	f_i	$f_i\ x_i$	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	$f_i(x_i - \bar{x})^2$
50	1	50	-17.25	297.56	297.56
60	6	360	-7.25	52.56	315.36
65	14	910	-2.25	5.06	70.84
70	13	910	2.75	7.56	98.28
75	5	375	7.75	60.06	300.3
85	1	85	17.75	315.06	315.06
$\sum$	40	2690			1397.4
$S = \sqrt{\frac{\sum f_i (x_i - \bar{x})^2}{n-1}} = \sqrt{\frac{1397.4}{40-1}} = 5.986$					

Table 11

Normality Post test of the Control Class

Class interval	Limit class	Z for the limit class	Opportu -nities Z	Size classes for Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	49.5	-2.97	0.499				
50-55				0.024	0.96	1	0.001
	55.5	-1.96	0.475				
56-61				0.143	5.72	6	0.014
	61.5	-0.96	0.332				
62-67				0.316	12.64	14	0.146
	67.5	0.04	0.016				
68-73				0.335	13.4	13	0.012
	73.5	1.04	0.351				
74-79				0.128	5.16	5	0.005
	79.5	2.05	0.480				
80-85				0.020	0.76	1	0.076
	85.5	3.05	0.499				
The result of computation Chi-Square / X^2							0.254

With α = 5% and dk = 6-3 = 3, from the Chi-Square distribution table, obtained X_{table} = 7.81. Because X^2_{count} was lower than X^2_{table} (0.25<7.81). So, the distribution list was normal.

3) The Homogeneity Post-Test of the Experimental Class

Hypotesis :

$H_o : \sigma_1^2 = \sigma_2^2$

$H_A : \sigma_1^2 \neq \sigma_2^2$

Test of hypothesis:

The formula was used:

$$F = \frac{Biggest\ \text{var}\ iant}{smallest\ \text{var}\ iant}$$

The data of the research:

σ_1^2 = 47.44 n_1 = 40

σ_2^2 = 35.83 n_2 = 40

$$\sigma_1^2 = S_1^{\,2} = \frac{\sum (x-\bar{x})^2}{n_1 - 1} = \frac{1850}{40-1} = 47.44$$

$$\sigma_2^2 = S_2^{\,2} = \frac{\sum (x-\bar{x})^2}{n_2 - 1} = \frac{1397.4}{40-1} = 35.83$$

Biggest variant (Bv) = 47.44

Smallest variant (Sv) = 35.83

$n_1 = 40$

$n_2 = 40$

Based on the formula, it was obtained:

$$F = \frac{47.44}{35.83} = 1.32$$

With α = 5% and dk = (40-1=39) : (40-1=39), obtained F_{table} =1.69. Because F_{count} was lower than F_{table} (1.32 < 1.69). So, Ho was accepted and the two groups have same variant/ **homogeneous.**

2. The Hypothesis Test

In this research, because $\sigma_1^2 = \sigma_2^2$ (has same variant), the t-test formula was as follows:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \qquad S^2 = \frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1 + n_2 - 2}$$

The data of the research:

$\overline{x_1}$ = 77.5	$\overline{x_2}$ = 67.25
S_1^2 = 47.44	S_2^2 = 35.83
n_1 = 40	n_1 = 40

$$S = \sqrt{\frac{(n_1-1)S_1^{\,2} + (n_2-1)S_2^{\,2}}{n_1 + n_2 - 2}}$$

$$S = \sqrt{\frac{(40-1)47.44 + (40-1)35.83}{40+40-2}} = 6.45$$

$$t = \frac{\overline{x_1} - \overline{x_2}}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = \frac{77.5 - 67.25}{6.45\sqrt{\frac{1}{40} + \frac{1}{40}}} = 7.104$$

From the computation above, by 5% alpha level of significance and dk = 40+40-2=78. Obtained t_{table} was 1.98 while t_{count} was 7.10. So, can be concluded Ho was rejected because t_{count} was higher than the critical value on the t_{table} (7.10 > 1.98).

From the result, the hypotheses in this research can be concluded that there was a significance difference in Simple Future Tense achievement score between experimental class was taught using *Table-chart* and control class was not taught using non-*Table-chart*.

C. Discussion of Research Findings

Before giving the treatment, writer checked the balance of the students' initial ability of both classes. The data used to test the balance was the score of pre-test. Analysis of initial data was conducted through normality test that aimed at showing whether the data is normally distributed or not. This can be seen from the normality test with chi-square, where $X^2_{count} < X^2_{table}$, α = 5 %, dk = 3.

On the normality test of pre-test of the experimental class, it can be seen X^2_{count} (1.12) $< X^2_{table}$ (7.81) and the control class X^2_{count} (1.53) $< X^2_{table}$ (7.81). Since homogeneity test shows F_{count} (1.03) < F_{table} (1.69), it can be concluded that the two classes is homogeneous. Based on the analysis of t-test at the pre-test, it is obtained t_{count} = 0.505 with t_{table} = 1.98 which proves that there is no difference of the average of pre-test between both classes.

The normality test of post-test of experimental class results X^2_{count} (0.59) $< X^2_{table}$ (7.81) and control class results X^2_{count} (0.25) $< X^2_{table}$ (7.81).

The post-test demonstrate that the hypothesis of those classes is normal on the distribution. It is proved with F_{count} (1.32) < F_{table} (1.69) from the homogeneity test that had the same variant.

From the last phase of the t-test, it is obtained t_{count} = 7.10 with t_{table} = 1.98 with the standard of significant 5%. Because of $t_{count} > t_{table}$ = (7.10>1.98) so the hypothesis is accepted. It means that using *Table-chart* in teaching Simple Future Tense is effective.

Table Chart has some positive influences for the students in improving Simple Future Tense achievement. There were some reasons why the students can improve their Simple Future Tense by Using *Table-chart*. They were as follows:

1. By using *Table-chart*, the students will have encouragement and curiosity to find out the meaning of unfamiliar words. It was caused by the form; infinitive verb and time signal that were presented in *Table-chart* that incite the students' intention. The students should create simple verbs and time signals into *Table-chart*, with create their future planning.
2. Using *Table-chart*, the students can learn Simple Future Tense relaxes and enjoy. In the process of learning, teacher should be resourceful in determining the classroom setting in order to make students focus on the lesson.
3. The use of *Table-chart* in Senior High School can give opportunities for students to study grammar indirectly. It offers similar rich of opportunities for learning Simple Future Tense from context indirectly. So, students not only understand the meaning of Simple Future Tense, but also they can use it in daily life context

Based on the result of tests that had been done, it could be explained that using *Table-chart* in the process of learning English at VIIIB students of MTs AL-ASROR Semarang could help students' understanding on Simple Future Tense. In this case, students should create simple verbs and time signals into *Table-chart*, with create their future planning. It enabled the

students to be able to master the material related to Simple Future Tense easily because they were involved directly.

Meanwhile, teaching learning process in the control class was implemented through lecturing using text or classical way. In this process, the teacher explained the material using text. At the beginning of the process, the students were given a pre-test to know the initial ability of the students. Then, the students sat and paid attention to the teacher's explanation. However, students felt saturated with the material presented by the teacher because there were no interesting ways used in teaching learning process.

The result of the research shows that the experimental class (the students who were taught using *Table-chart*) has average score 77.5. Meanwhile, the control class (the students who were taught without using *Table-chart*) has average score 67.25. It can be said that the Simple Future Tense score of experimental class was higher than the control class. It means that there was a significant difference of the Simple Future Tense score between students taught using *Table-chart* and those taught without *Table-chart*.

On the other hand, the test of hypothesis using t-test formula shows the value of the t-test is higher than the critical value, $t_{count} > t_{table}$ (t_{count} higher than t_{table}). The value of t-test is 7.10, while the critical value on $t_{s0,05}$ is 1.98, the hypothesis is accepted.

In this research, the writer used the *Table-chart* to improve the grammar achievement of Simple Future Tense by the eighth grade students in MTS AL-ASROR Gunungpati Semarang in the academic year of 2010/ 2011. So, the research findings were only representative in that school. The writer hopes that more researches will be done by the others to prove this method in improving students' Simple Future Tense and to find out other methods in learning and teaching English.

D. Limitation of the Research

The writer realizes that this research had not been done optimally. There were constraints and obstacles faced during the research process. Some limits of this research were:

1. Relative short time of research makes this research could not be done maximum.
2. The research was limited at MTS AL-ASROR Semarang in the academic year of 2010/ 2011. So that when the same research will be gone in other schools, it was still possible to get different result.
3. The implementation of the research process was less smooth; this was more due to lack of experience and knowledge of the writer.

Considering all those limitations, there was a need to do more research about teaching Simple Future Tense using *Table-chart*. However, this research might give a broader overview to everyone toward the importance of using *Table-chart* in teaching Simple Future Tense was appropriate. Moreover, the result of this research could be a basic reference for any future research related to grammar of Simple Future Tense.