### **CHAPTER IV**

#### RESEARCH FINDING AND ANALYSIS

This chapter discussed the analysis of data collection from the research finding and discussion. This research was intended to find out the effectiveness of using miming game in teaching the present continuous tense with the eighth grade students of MTs N 01 Semarang.

## A. Description of Research

Finding of this research described that there were different result between experimental class which taught by using Miming Game and control class which was taught without using Miming Game on the Present Continuous Tense. The research was conducted in MTs N 01 Semarang which is located at Ketileng Raya Street Semarang with the eighth grade students in the academic year of 2014/2015.

The activity of the research started on 11<sup>th</sup> October 2014 by choosing the sample used cluster random sampling technique. To get the representative sample, the researcher wrote the names of the classes on small piece of paper. And then, the paper were rolled and put into a lot of box. At last, the researcher got class VIII E which consist 35 students as tryout group, class VIII D which consisted of 34 students was an experimental group and class VIII B which consisted of `34 students was a control group. The number of students was gained from the documentation of the school by the help of the English teacher.

The researcher gave tryout test for tryout class on 14<sup>th</sup> October 2014 to analyze validity, reliability, difficulty level, and the discrimination power of each item before items were given to the students. The researcher prepared 40 items as the instrument of the test. Test was given to know the validity, reliability, degree of test difficulty and discriminating power of test item of tryout test in control class that was provided by the researcher.

The researcher used *product-moment* formula to analyze validity in this research finding of tryout test. The *spearman brown* formula was used

and combined with *product moment* formula to analyze reliability of instrument. The index of test difficulty used difficulty level formula by considered five levels of difficulty. The last analysis of tryout test was discriminating power which divided into two groups; lower group and upper group which consist of 18 students in upper groups and 17 students in lower group.

The researcher gave pre-test on 16<sup>th</sup> October 2014 in control group and 18<sup>th</sup> October 2014 in experimental group. The questions consisted of 26 items were stated valid according to tryout analysis. The researcher determined the materials and lesson plans of learning activities after giving pre-test. Pre-test was conduct to both groups to know that two groups were normal and homogeny.

The researcher got the result that the control and experimental group had same variant. Before giving the treatment and conventional teaching, the researcher prepared lesson plan and material to learning activity. The researcher conducted conventional teaching in control class on 18<sup>th</sup>October 2014. The control group was not taught by using Miming Game, but the teacher explained the material using conventional method without giving variation or special treatment in learning process.

The treatment for experimental group on 18<sup>th</sup> October 2014 by using Miming Game focused on the present continuous tense. Miming Game is memorable for the students because they learn the present continuous tense by acting certain verb. By performing miming game the students are able to master the material related to the present continuous tense easily because they were involved directly.

The researcher gave post-test on 20<sup>th</sup> October 2014 to both experimental group and control group. From the result, 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* from the post-test.

## **B.** Data Analysis

## 1. Tryout Test

This discussion covered validity, reliability, level of difficulty and discriminating power. It is necessary for the researcher to give tryout as the instrument before conducting pre-test and post-test. This test was used to know whether the instruments is valid or invalid, because the validity instrument is needed before applying it in pre-test and post-test. The researcher collected all the result and analyzed it after the researcher gave the tryout. The validity and reliability of each test item was calculated by the researcher after conducting try out.

# a. Validity of Instrument

Validity refers to the precise measurement of the test. In this research, 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. The formula as follow:

$$r_{xy} = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{N \sum x^2 - (\sum x)^2 N \sum y^2 - (\sum y)^2}}$$

Where:

 $r_{xy}$ : the coefficients of correlation between X and Y

N : the total of subject of experiment

X: the score of each component of test

Y : the total score of correct answers

 $\sum X$ : the sum of score of X item

 $\sum Y$ : the sum of score of Y item

 $\sum X^2$ : the sum of the square score in each component of test

 $\sum Y^2$  the sum square of total score from each student in the group

All items of tryout test were analyzed by using Pearson's formula. From the computation, it was obtained that from 40 test items; there were 26 test items which were valid and 14 test items were invalid. They were on number 11, 18, 19, 20, 21, 22, 26, 28, 31, 32,

33, 34, 35 and 36. (appendix 6) They were invalid with the reason of the computation result of their  $r_{xy}$  value (the correlation of score each item) was lower than their  $r_{table}$  value.

The computation of item number 1 showed the result of  $r_{xy}$  was 0.509. After that, the researcher consulted the result to the table of r Product Moment with the number of subject (N) = 35 and significance level 5% it was 0.334. 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. (appendix 7)

## b. Reliability

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

$$r_{xy} = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{\{N \sum x^2 - (\sum x)^2\}\{N \sum y^2 - (\sum y)^2\}}}$$

Where:

 $r_{xy}$ : the coefficients of correlation between X and Y

N : the total of subject of experiment

X : the score of each component of test

Y : the total score of correct answers

 $\sum X$ : the sum of score of X item

 $\sum Y$ : the sum of score of Y item

 $\sum X^2$ : the sum of the square score in each component of test

 $\sum Y^2$ : the sum square of total score from each student in the group *Product-moment* formula  $(r_{xy})$  was used by researcher before computing the reliability, and the result is  $r_{xy} = 0,509$ .

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

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

Where:

 $r_{11}$ : The reliability coefficient of items

n : The number of item in the test

P : The proportion of students who give the right answer
Q : The proportion of students who give the wrong answer

 $S^2$ : The standard deviation of the test

The computation was found out that  $r_{11}$  (the total of reliability test) was 0.644 where the number of subjects was 35 and the critical value for r-table with significance level 5% was 0,334. 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. (appendix 8)

# c. Index of Difficulty

The difficulties index of an item shows how easy or difficult the item was proven in the test. The level of difficulties uses the formula as follow:

$$P = \frac{B}{JS}$$

Where:

P : index of difficulty.

B : the number of students who has right answer.

JS : the total number of students.

The index of difficulty level can be classified as follows:<sup>1</sup>

 $P = 0.00 \le p \le 0.30$  Difficult question

 $P=0.30 \le p \le 0.70$  Sufficient

 $P = 0.70 \le p \le 1.00$  Easy

<sup>&</sup>lt;sup>1</sup>Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan* (Jakarta: Bumi Aksara, 2007) 7th Ed.p. 210.

The computation of the level difficulty for item number 1 was found, P = 0.66. (Appendix 9) It is 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 is in the interval  $0.30 \le p \le 0.70$ . After computing 40 items of the try-out test, there were 8 items were considered to be easy, 27 items were considered to be medium, and 5 items were difficult tests.

## d. Discriminating Power

The formula is used to find discriminating power of each item as follows:

$$D = \frac{B_A}{J_A} - \frac{B_B}{J_B}$$

Where:

D : discrimination index.

JA : member of student in upper group.

JB : member of student in low group.

BA : member of students in upper group who answer the item

correctly.

BB : member of students in low group who answer the item

correctly.

The criteria of determining the index of discriminating are below:<sup>2</sup>

D = 0.00 - 0.20 : Poor

D = 0.21 - 0.40: Satisfactory

D = 0.41 - 0.70 : Good

D = 0.71 - 1.00 : Excellent

The computation using the formula was found D = 0.36. (Appendix 10) According to the criteria above, the computation of item number 1 was medium category. Because the calculation result of the item number 1 was in the interval  $0.20 \le D \le 0.40$ . After computing 40

<sup>&</sup>lt;sup>2</sup>Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan*, p. 218.

items of try-out test and after being consulted to the discriminating power category, there were 8 items which considered being good, 18 items were satisfied and 14 items were poor.

Table 4.1 Classification of Discriminating Index

Index	Category
0.00 - 0.20	Poor
0.21 - 0.40	Satisfactory
0.41 - 0.70	Good
0.71 - 1.00	Excellent

Based on the analysis of validity, reliability, difficulty level, and discriminating power, finally 40 items of test, there were 26 items were accepted to be used in pre-test and post-test. They were number 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 20, 23, 24, 25, 27, 30, 37, 38, 39 and 40.

## 2. Data Analysis of Pre-Test and Post-Test

Some activities were done by the researcher to collect the data during the research, such as try out the test, pre-test, treatment, conventional teaching, and doing post-test. All of these activities were held in four meetings. The schedule can be seen as follow:

Table 4.2 Schedule of the Research

No.	Activity	Month/ Date				
110.	retivity	October				
		14 <sup>th</sup>	16 <sup>th</sup>	18 <sup>th</sup>	20 <sup>th</sup>	
1.	Try-Out Class	1				
2.	Experimental					
2.	Class					
	a. Pre-Test		$\sqrt{}$			
	b. Treatment		$\sqrt{}$			

	c. Post-Test			$\sqrt{}$
3.	Control Class			
	a. Pre-Test	$\sqrt{}$		
	b. Explaining	$\sqrt{}$	$\sqrt{}$	
	c. Post-Test			$\sqrt{}$

The researcher held pre-test, treatment, conventional teaching and post-test to the students after the researcher finished the try out test. It is hoped that the researcher could know the improvement of the students' mastery of present continuous tense using miming game. The students' score before and after being taught present continuous tense using miming game and the significant different both of them is written below:

a. The Students' Score of Present Continuous Tense which Taught without Using Miming Game

The researcher was conducted pre-test on Monday, October 16<sup>th</sup> 2014 for the first time. In pre-test the researcher get thirty four students who joined the test and it was class VIIB as control class and class VIII D as experimental class. Some explanation were explained by the researcher to the students how to answer the test.

Table 4.4
Levels of Achievement

Mark	% Points Needed	Level of Achievement
A	90 - 100	Excellent
В	80 – 89	Very Good
С	70 – 79	Adequate
D	60 – 69	Inadequate
Е	59 and below	Failing

Table 4.5

Pre Test Score between Experimental Class and Control Class

	CONTR	OL	E	EXPERIM	MENT
NO	CODE	SCORE	NO	CODE	SCORE
1	C-1	96	1	E-1	92
2	C-2	48	2	E-2	68
3	C-3	40	3	E-3	96
4	C-4	52	4	E-4	72
5	C-5	72	5	E-5	60
6	C-6	96	6	E-6	96
7	C-7	64	7	E-7	72
8	C-8	28	8	E-8	56
9	C-9	76	9	E-9	52
10	C-10	80	10	E-10	60
11	C-11	36	11	E-11	64
12	C-12	68	12	E-12	92
13	C-13	80	13	E-13	92
14	C-14	64	14	E-14	76
15	C-15	32	15	E-15	68
16	C-16	48	16	E-16	68
17	C-17	36	17	E-17	92
18	C-18	72	18	E-18	32
19	C-19	56	19	E-19	72
20	C-20	80	20	E-20	88
21	C-21	48	21	E-21	88
22	C-22	52	22	E-22	88
23	C-23	80	23	E-23	92
24	C-24	96	24	E-24	80
25	C-25	92	25	E-25	68
26	C-26	76	26	E-26	80

	CONTROL			EXPERIMENT		
NO	CODE	SCORE	NO	CODE	SCORE	
27	C-27	60	27	E-27	48	
28	C-28	56	28	E-28	52	
29	C-29	56	29	E-29	88	
30	C-30	40	30	E-30	80	
31	C-31	92	31	E-31	40	
32	C-32	100	32	E-32	100	
33	C-33	60	33	E-33	80	
34	C-34	100	34	E-34	100	
Sum		2232			2520	

b. The students' Score of present continuous tense after being taught by Using Miming Game

Table 4.6
Post Test Score between Experimental Class and Control Class

	CONTROL		EXPERIMENTAL		
NO	CODE	SCORE	NO	CODE	SCORE
1	C-1	92	1	E-1	100
2	C-2	72	2	E-2	96
3	C-3	96	3	E-3	84
4	C-4	96	4	E-4	72
5	C-5	92	5	E-5	100
6	C-6	36	6	E-6	72
7	C-7	68	7	E-7	92
8	C-8	72	8	E-8	100
9	C-9	40	9	E-9	76
10	C-10	80	10	E-10	76

	CONTR	OL	EXPERIMENTAL		
NO	CODE	SCORE	NO	CODE	SCORE
11	C-11	52	11	E-11	76
12	C-12	80	12	E-12	100
13	C-13	92	13	E-13	84
14	C-14	72	14	E-14	88
15	C-15	48	15	E-15	96
16	C-16	64	16	E-16	92
17	C-17	48	17	E-17	88
18	C-18	60	18	E-18	92
19	C-19	56	19	E-19	84
20	C-20	60	20	E-20	68
21	C-21	56	21	E-21	68
22	C-22	60	22	E-22	84
23	C-23	100	23	E-23	60
24	C-24	100	24	E-24	80
25	C-25	96	25	E-25	60
26	C-26	88	26	E-26	60
27	C-27	80	27	E-27	60
28	C-28	64	28	E-28	68
29	C-29	80	29	E-29	88
30	C-30	60	30	E-30	68
31	C-31	64	31	E-31	68
32	C-32	100	32	E-32	60
33	C-33	92	33	E-33	100
34	C-34	100	34	E-34	92
Sum		2516			2752

# c. The Comparison Result Before and After Being Taught Using Miming Game

Table 4.7

Comparison Score Before and After being Taught Using Miming

Game

EXPERIMENTAL CLASS					
		BEFORE	AFTER		
	COD	(PRE-TEST)	(POST-		
NO	Е		TEST)		
1	E-1	92	100		
2	E-2	68	96		
3	E-3	96	84		
4	E-4	72	72		
5	E-5	60	100		
6	E-6	96	72		
7	E-7	72	92		
8	E-8	56	100		
9	E-9	52	76		
10	E-10	60	76		
11	E-11	64	76		
12	E-12	92	100		
13	E-13	92	84		
14	E-14	76	88		
15	E-15	68	96		
16	E-16	68	92		
17	E-17	92	88		
18	E-18	32	92		
19	E-19	72	84		
20	E-20	88	68		

	EXPERIMENTAL CLASS				
		BEFORE	AFTER		
	COD	(PRE-TEST)	(POST-		
NO	Е		TEST)		
21	E-21	88	68		
22	E-22	88	84		
23	E-23	92	60		
24	E-24	80	80		
25	E-25	68	60		
26	E-26	80	60		
27	E-27	48	60		
28	E-28	52	68		
29	E-29	88	88		
30	E-30	80	68		
31	E-31	40	68		
32	E-32	100	60		
33	E-33	80	100		
34	E-34	100	92		
SUM		2520	2752		

The result above showed that the students' result of class after taught being using miming game was higher than before being taught using miming game.

The next step the researcher calculated t-test, mean, standard of deviation and standard of error. SPSS program was used to calculated t-test, mean standard of deviation, and standard of error to know if there is significant different in teaching present continuous tense using miming game.

The table of post-test score for both groups, (table 4.6), showed the result of difference mean of class between control (without using miming

game and experimental class (using miming game). The result of the students which being taught without using miming game was 2516, and the result which being taught using miming game is 2752. It means that there is improvement of the students' result which taught using miming game and without using miming game.

The researcher found the difference of mean of the students' mastery of present continuous tense which being taught using miming game and without using miming game for the first step and the result was 6.94. Second, the researcher found the standard deviation of post-test for both class and the result was 13.7179 for experimental class and 19.0756 for control class. Then the third the researcher calculated standard error of the difference and the result was 4.029. Last, the researcher found t-test of the research and the result was 1.723 then the researcher consulted the t-value to the t-table. The result of  $t_{value} > t_{table}$  (1.723 > 1.67). It means that there is significant difference of the students' mastery of present continuous tense which being taught using miming game and without using miming game.

## C. Discussion of the Research Finding

This research was an experimental research carried out to know the effectiveness of using grammar games (miming game) in teaching the present continuous tense. This research examined the effectiveness of games on students' achievement while learning the form and rules governing the use of the tense.

The total number students of MTs N 01 Semarang were chosen 68 students as the participants of this research, of which 34 students constituted the experimental group while the remaining represented the control group. Miming game was played as a form of treatment. The data were collected through the means of a pre and post-test. The data were analyzed using quantitative method.

Based on the research finding the effectiveness of using miming game is able to answer the statement of the problems. It was related with Jill Hadfield statement, "a game is an activity with rules, a goal and element of fun". Games help and encourage many learners to sustain their interest and work. Meanwhile, Jim Lambdin stated, "Mime uses the creative instrument everyone has: our body. We all can use our bodies to express our ideas and feelings, including those of us who don't speak English well, or who have trouble reading."

The students' result which being taught without using miming game can be seen from the result of students' mean that is 74.00. It can be categorized in the adequate grade. Thus, the students' level achievement is standard and under minimum passing grade that is 75.00. In fact, many students were still weak in understanding present continuous tense. They had difficulties to understand the meaning the formula of present continuous tense.

The students got more knowledge and it could help them to understand present continuous tense after being taught using miming game. Since getting the treatment, the students could know how to understand the material of present continuous tense that was given by the teacher well. It was shown through the mean of students' result after being taught using miming game was 80.94. It could be categorized in the good grade. Therefore, the students' mastery of present continuous tense after being taught using miming game improved from 74.00 to 80.94, it shows that the difference means before and after being taught using miming game is 6.94.

The researcher calculated t-test to know whether there is significant difference before and after being taught using miming game in teaching the present continuous tense. From the computation using SPSS program (Appendix 27), it was found the score of t. The result is 1.723. Meanwhile, the critical value in t-table for 5% alpha level and dk 66 is 1.67. The obtained t-value is 1.723. Thus, the t-value is higher than the critical value on the table

<sup>4</sup> Jef Lambdin, Study Guide for a Mime Residency, (Lumberton, 1999)

<sup>&</sup>lt;sup>3</sup> Jill Hadfield, *Intermediate Communication Games*, (England: Longman, 1996) p.v

(1.723 > 1.67). It means that there is significant improvement after using miming game as the technique. So, the usage miming game as technique is able to improve students' mastery of present continuous tense. Therefore, Ha there was any significant improvement of mastery of present continuous tense with the eighth grader students of MTs N 01 Semarang in academic year 2014/2015. From the result above the researcher concluded that Ha is accepted.

The analysis above can be concluded that the use of miming games had a positive effect on the students' achievement of the present continuous tense. Game was particularly useful in grammar learning because it presented the students with an authentic environment to learn and practice the tense. Language use and practice in an authentic environment provided an effective reinforcement in the learning process. Students also enjoyed the competitive game and it served as a motivation for successful participation.

#### D. Limitation of the Research

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

- The research was limited at MTs N 01 Semarang in the academic year of 2014/2015. When the same researches conducted in other schools, it is still possible that different result will be gained.
- 2. Relative of the implementation process of this research have short of time, makes this research could not be do maximal. But it was enough to fulfill all requirements for a research.
- 3. Relative lack of experience and knowledge of the researcher, makes implementation process of this research was less smooth. But the researcher tried as maximal as possible to do this research.

Considering all those limitations, there is a need to do more research about teaching English Grammar using the same or different medium. In the hope there will be more optimal result.