## CHAPTER III

## RESEARCH METHODOLOGY

## A. Research Design

This research is experimental research because it would find out the effect of Buzz Group Technique toward students' speaking ability at VIII grade of Junior High School 1 Lembah Melintang. According to Hadeli (59) experimental research is the only type of research that can test hypotheses to establish cause-effect relations. The experimental design must have two groups: an experimental group and control group. The students would be treated in different ways, the experimental group was taught through buzz group technique, and the control group was taught through conventional technique.

This research used post-test only design. Because of this research used the post-test only design, it gave just posttest to the students; it was given after giving treatment. According to sugiyono (2013:114) this design takes the following form:

Table 3.1
Research Design

$\quad$| Group | Treatment | Posttest |
| :---: | :---: | :---: |
| Experiment | X | O |
| Control | - | O |
| X | $=$ Treatment (Buzz Group) Technique |  |
| O | $=$ Post-test for experimental\& control group |  |

The experimental class would be taught by using buzz group technique and control class would be taught by using conventional technique that used
in the school. Both of classes got the same topic, the same length of time in four meetings. At the end of the research the researcher would give the posttest to both of classes with the same test. The test was speaking test. Every student chooses one picture that prepared by the researcher and student tell it in front of class by using own their words.

## B. Population and Sampel

## 1. Population

Gay (2000: 102) said that population is a group to which the researcher would like the results of the study to be generalizable and sampling is the processes of selecting a number of individuals for a study in such a way that the individuals represent the large group from which they were selected. In this research, the population was students in eight grades at Junior High School 1 Lembah Melintang. The total number of the population is 240 students. They were distributed into eight classes. The population of the students' will be shown on the table below:

Table 3.2
Population of the research

| No | Class | Number of Students |
| :---: | :---: | :---: |
| 1 | VIII.1 | $\mathbf{3 0}$ |
| 2 | VIII.2 | $\mathbf{3 0}$ |
| 3 | VIII.3 | $\mathbf{3 0}$ |
| 4 | VIII.4 | $\mathbf{3 0}$ |
| 5 | VIII.5 | $\mathbf{3 0}$ |
| 6 | VIII.6 | $\mathbf{3 0}$ |
| 7 | VIII.7 | $\mathbf{3 0}$ |
| 8 | VIII.8 | $\mathbf{3 0}$ |
|  | TOTAL | $\mathbf{2 4 0}$ |

Source: English Teacher at Class VIII of Junior High School I Lembah Melintang

After deciding the population, the researcher used SPSS to show normality and homogenity from the eight classes above. Then to show the sample representative or not the researcher does the next step:

1) Collected the students' MID term score data all of second grade in second semester
2) Test normality

This testing was used to know whether the distribution of each variable was normal distributed or not. The criteria of this testing of significance score from analysis was higher than standard significance (0.05), the distribution data was normal. It can be seen on the table below:

Table 3.3
Tests of normality
The Result of Testing Normality English Mid Term of VIII Junior High 1
Lembah Melintang

|  | Kelas | Kolmogorov-Smirnov ${ }^{\text {a }}$ |  |  | Shapiro-Wilk |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Statistic | Df | Sig. | Statistic | Df | Sig. |
|  | VIII. 1 | . 097 | 30 | .200** | . 958 | 30 | . 267 |
|  | VIII. 2 | . 164 | 30 | . 039 | . 942 | 30 | . 102 |
|  | VIII. 3 | . 120 | 30 | .200** | . 981 | 30 | . 841 |
|  | VIII. 4 | . 122 | 30 | .200** | . 938 | 30 | . 082 |
|  | VIII. 5 | . 163 | 30 | . 041 | . 923 | 30 | . 031 |
|  | VIII. 6 | . 085 | 30 | .200** | . 975 | 30 | . 683 |
|  | VIII. 7 | . 130 | 30 | .200** | . 934 | 30 | . 061 |
|  | VIII. 8 | . 103 | 30 | .200* | . 963 | 30 | . 367 |

Source: of calculation of SPSS
Based on the table, it can be seen that the significance of each classes score was higher than 0.05 . To see whether the sample normal or not in
distribution, researcher also used normal graphic of Q-Q plot, the data is normal if the distribution of data plot be in the surrounding of aslant and athwart line. From the normality test, researcher got the output as below:
3) Test of Homogeneous Variances
4) After doing the normality test and got the normal data. Then the researcher did the homogeneous variation test. This test had an objective as to know the sample homogeny or not. The researcher did the test of homogenity by using Test of homogenity of variance. If the data were significant or the data were more than 0.05 it meant the data was homogeneous.

Table 3.4

Test of Homogeneity of Variance
The Result of Testing Homogeneity English Mid Term of VIII Junior High
School 1 Lembah Melintang

|  | Levene <br> Statistic | df1 | df2 | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| VAR0 | Based on Mean | 1.461 | 7 | 232 |
| 0001 | 1.354 | 7 | 232 | .226 |
|  | Based on Median and <br> with adjusted df <br> Based on trimmed <br> mean | 1.354 | 7 | 203.963 |

## 2. Sample

According to Gay (2000:101) says that sample is a select number of individuals for a study in such a way that represent the larger group (population) from which selected. Gay also States that a good sample is the one that representative of the population from which is selected, in this research researcher choose two classes to be the sample.

In order to get sample, the sample of this research is cluster random sampling. According to Gay (2000:110) cluster sampling is sampling in which groups, not individuals are randomly selected that have similar characteristics and in which subjects can be found. Researcher used Cluster random sampling to get the data.

The sample of this research is two classes. It consists of 30 members class VIII. 8 as experimental group and 30 members VIII. 7 as control class. The sample is 60 students.

Table 3.5
Sample of Research

| No | Class | Total |
| :---: | :--- | :---: |
| 1 | VIII.8 (Experimental class) | 30 |
| 2 | VIII.7 (Control class) | 30 |

## C. Time and Place

This research was held at Junior High School 1 Lembah Melintang. It is located on Jln. Halmahera Ujung Gading. The treatment was conducted at grade VIII. 8 students at second semester. This research was done four times meeting where the treatment was twice a week for experimental and control
class. The treatment was carried out based on the teaching schedule of Junior High School 1 Lembah Melintang.

## D. Instrument of the Research

The writer used speaking test as instrument. According to Sugiyono (2013:102) instrument is the tools that used to assess social phenomena that observed. Then according to Arikunto (2010:265), instrument is the tools selected and used by researchers to collect data become systematic and facilitated. The students present a recount text in front of the group with their own words based on their discussion. The teacher depicted students' speaking ability in speaking based on Hughes' assessment; they are in grammar, pronunciation, fluency, vocabulary and comprehension.

Speaking test

| School | : SMPN 1 Lembah Melintang |
| :--- | :--- |
| Class | : VIII |
| Semester | $:$ II |
| Material | : Recount Text |

1 Types of test
This list of questions used in post test (experimental and control class) to measure the students' speaking skill

2 Instrument The researcher interviewed the students one by one to speak face to face in the class and interview had recorded by a hand phone. Then the researcher gave score the test

3 Time of the research

The duration of the test is 3-5 minutes for each student.

## Questions

a. Are you ready interview with me?
b. How have you been?
c. What is your name?
d. Look at this picture! Which one do you want to choose among them?
e. Why do you choose this picture
f. Would you like to tell it please


## E. Procedures Data Collection

## 1. Preparing

The researcher used two classes to collect data, the researcher taught the students by using Buzz Group Technique for experimental class, and the English teacher would teach a conventional technique for control class. However, the material in learning is same. In short, the researcher explains the procedure as bellow:
a. Determined the research time.
b. Prepare the lesson plan arranged by curriculum
c. Doing treatment, each group will have a post test
d. The result calculated the using the percentage of improvement
e. Findings

## 2. Learning Process

Table 3.6
Treatment Procedure for Experimental and Control group

| Experimental Group | Control Group |
| :---: | :---: |
| Pre Teaching Activities | Pre Teaching Activities |
| - Greeting | - Greeting |
| - Praying | - Praying |
| - Asking the students to Read | - Asking the students to Read |
| holy Qur'an | holy Qur'an |
| - Checking students attendance | - Checking students attendance |
| - Asking the students last material | - Asking the students last material |
| - Teacher encourages students to | - Teacher encourages students to |


| speak English by asking questions that related to the material <br> - Students respond teachers' questions based on their experience <br> - Introduces learning objective to students | speak English by asking questions that related to the material <br> - Students respond teachers' questions based on their experience <br> - Introduces learning objective to students |
| :---: | :---: |
| Main Teaching Activities <br> Teacher shows a picture to the students for build students' background knowledge <br> Questioning <br> - Teacher asks the students about the picture <br> - Teacher leads students to give comment or asks question based on the picture <br> - Teacher gives an uncompleted example of recount text | Main Teaching Activities <br> Teacher shows a picture to the students for build students' background knowledge <br> Questioning <br> - Teacher asks the students about the picture <br> - Teacher leads students to give comment or asks question based on the picture <br> Teacher gives a example of recount text |

## Exploring

- Students reads and analyze the text
- Teacher guides students to identify social function and generic structure of recount text


## Associating

- Teacher divides students into group consist of 5 members in each group
- Class has to decide who become leader to control discussion
- Groups choose one member to be own leader and recorder of the groups
- Teacher provides teaching material that will be discussion
- Teacher as leader controls the class by coming each to each group
- The teacher should sound warning that time is almost up at the 1-2 minute


## Exploring

- Students reads and analyze the text
- Teacher guides students to identify the social function and generic structure of recount text


## Associating

- Teacher divides the students work in pair
- Teacher provides teaching material that will be discussed
- Teacher asks all pair to discuss about the picture
- Teacher check students activity in pair
- After that teacher reconvenes the group into the large group


## Communicating

- The teacher asks the presenter of each buzz group to present their discussion result in front of the class
- Each groups pays attention to group that presenting and students get the supporting comment from the teacher
- Teacher makes sure the student understand how to retell experience in the past event
- Teacher correct students’ speaking by considering the components of speaking


## Communicating

- Teacher asks the students perform in front of the class
- Each of pair pays attention to group that presenting and student gets the supporting comment from the teacher
- Teacher makes sure the students understand how to retell experience past event
- Teacher corrects students' speaking by consider the components of speaking


## Post Teaching

- Teacher reviews and conclude the lesson
- Teacher asks students
- Teacher asks students



## 3. Finishing

a. Giving test to experimental and control class
b. Processing data toward experimental and control class
c. Taking conclusion from the strategy of data collection.

## F. Technique of Data Collection

The data of this research was collected by giving the student post-test after four meetings treatment to know students' speaking ability. This test is oral test. The post test was given to both control group and experimental group that related to material and lesson plan.

The scoring of this research based on students' abilities in speaking such as; pronunciation, vocabulary, grammar, fluency and comprehension. There are many scoring in speaking abilities according to experts. Researcher had done use scoring technique of Hughes in this research to assess students' speaking skill. According to Hughes (2003: 111-113) scoring technique such as:

Table 3.7
Proficiency Description

| No | Items | Criteria of Each Item | Score |
| :---: | :---: | :---: | :---: |
| 1 | Pronunciation | Pronunciation frequently unintelligible. | 0 |
|  |  | Frequent gross errors and a very heavy accent make understanding difficult, require frequent repetition. | 1 |
|  |  | "Foreign accent" requires concentrated listening, and mispronunciations lead to occasional misunderstanding and apparent errors in grammar or vocabulary. | 2 |
|  |  | Marked "foreign accent" and occasional mispronunciations which do not interfere with understanding. | 2 |
|  |  | No conspicuous mispronunciations, but would not be taken for a native speaker. | 3 |
|  |  | Native pronunciation, with no trace of "foreign accent" | 4 |
| 2 | Grammar | Grammar almost entirely inaccurate phrases. | 6 |
|  |  | Constant errors showing control of very few major patterns and frequently preventing communication. | 12 |
|  |  | Frequent errors showing some major patterns uncontrolled and causing occasional irritation and misunderstanding. | 18 |
|  |  | Occasional errors showing imperfect control of some patterns but no weakness that causes misunderstanding. | 24 |
|  |  | Few errors, with no patterns of failure. | 30 |
|  |  | No more than two errors during the interview. | 36 |
| 3 | Vocabulary | Vocabulary inadequate for even the simplest conversation. | 4 |
|  |  | Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc.) | 8 |
|  |  | Choice of words sometimes inaccurate, limitations of vocabulary prevent discussion of some common professional and social topics. | 12 |
|  |  | Professional vocabulary adequate to discuss special interests. | 16 |
|  |  | Professional vocabulary broad and precise | 20 |


|  |  |  | Vocabulary apparently as accurate and <br> extensive as that of an educated native <br> speaker. |
| :--- | :--- | :--- | :---: |
| Fluency | Speech is so halting and fragmentary that <br> conversation is virtually impossible. | 24 |  |
| Speech is very slow and uneven except for <br> short or routine sentences. <br> Speech is frequently hesitant and jerky | 4 |  |  |
| Speech is occasionally hesitant, with some <br> unevenness caused by rephrasing and <br> grouping for words. | 8 |  |  |
| Speech is effortless and smooth, but <br> perceptibly non-native in speech and <br> evenness. | 10 |  |  |
| Speech on all professional and general <br> topics as effortless and smooth as a <br> native speakers' | 12 |  |  |
|  | Understands too little for the simplest type <br> of conversation. | 4 |  |
| Understands only slow, very simple <br> speech on common social and touristic <br> topics. | 8 |  |  |
| Understands careful, somewhat <br> simplified speech when engaged in a <br> Cialogue. | 12 |  |  |
| Understands quite well normal educated <br> speech when engaged in a dialogue. | 15 |  |  |
| Understands everything in normal educated <br> conversation. | 19 |  |  |
| Understands everything in both formal and <br> colloquial speech to be expected of an <br> educated native speaker. | 23 |  |  |

Source: Hughes (2003: 111-113)

Researcher used scoring technique of Hughes in this research to assess students' speaking:

Table 3.8
Weighting Table

| Component of <br> speaking | WEIGHTING TABLE |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 |  |
| Accent | 0 | 1 | 2 | 2 | 3 | 4 |  |
| Grammar | 6 | 12 | 18 | 24 | 30 | 36 |  |
| Vocabulary | 4 | 8 | 12 | 16 | 20 | 24 |  |
| Fluency | 2 | 4 | 6 | 8 | 10 | 12 |  |
| Comprehension | 4 | 8 | 12 | 15 | 19 | 23 |  |
| Total |  |  |  |  |  |  |  |

Table 3.9

## Scoring Table

| N | Studen's <br> Name | Categories |  |  |  |  | Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pronunciation | ITrammar | Vocabulary | Fluency | Comprehension |  |
| 1 |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |
| $\downarrow$ |  |  |  |  |  |  |  |
| 30 |  |  |  |  |  |  |  |
|  | Average |  |  |  |  |  |  |

## G. Technique of Data Analysis

The technique of data analysis had done use the statistical analysis. In this research the researcher used two statistical procedures to analyze the data.

1. T-test means a statistical procedure used to determine whether there was any significant effect between the means of the two sets of scores or between two coefficient of correlation. The purpose was to see the significant effect of speaking ability between Post-test of two classes.

In analyzing the students' test score, some step are done before analyzing the different mean by using T-test formula (Sudjana 2005:239) as follows:
a. This formula is applied to decide mean of students' test score in experimental and control class

$$
\begin{aligned}
& X_{1}=\frac{\sum F_{1} X_{1}}{\sum F_{1}}(\text { Experimental group }) \\
& X_{2}=\frac{\sum F_{2} X_{2}}{\sum F_{2}}(\text { Control group })
\end{aligned}
$$

b. This formula is used to decide standard deviation of experimental group;

$$
S^{2}=\frac{n_{1} \sum F_{1}-X_{1}^{2}-\left(\sum F_{1} X_{1}\right)^{2}}{n_{1}\left(n_{1}-1\right)}
$$

c. This formula is used to decide standard deviation of control group;

$$
S^{2}=\frac{n_{2} \sum F_{2}-X_{2}^{2}-\left(\sum F_{2} X_{2}\right)^{2}}{n_{2}\left(n_{2}-1\right)}
$$

d. The formula of T-test is as follows (Sudjana:1996)

$$
\mathrm{t}=\frac{\overline{\mathrm{X}}_{1}-\overline{\mathrm{X}}_{2}}{\mathrm{~s} \sqrt{\frac{1}{\mathrm{n}_{1}}}+\frac{1}{\mathrm{n}_{2}}} \text { and } \quad S=\sqrt{\frac{\left(n_{1}-1\right) S_{1}^{2}+\left(n_{2}-1\right) S_{2}^{2}}{n_{1}+n_{2}-2}}
$$

Where
$\mathrm{t}=$ the value of t calculated (observer) obtained
$\bar{X}_{1}=$ Mean score of experiment sample
$\bar{X}_{2}=$ Mean score of control class sample
$n_{1}=$ the number of subject of experiment group
$n_{2}=$ the number of subject of control group
$S_{1}^{2}=$ standard deviation of experiment group
$S_{2}^{2}=$ standard deviation of control group

