CHAPTER III

RESEARCH METHOD

In this chapter, the researcher presents the method of the research design, population and sample, instrument of the research, technique of collecting data and technique of the data analysis.

A. Research Design

This research will apply a quasi-experimental design involving two groups of classes. One group will treat as the experimental class, and other group will treat as the control class. In experimental class, the researcher appleies Ice Breaking in teaching speaking while in control class use conventional teaching method.

In this research the researcher will use a posttest design only where there are two groups, each of which is randomly selected (R). This research design is called post-test Only Control Group Design. The first group will give a treatment (X) or known as the experimental class while the second group will not or known as the control class. The effect of the treatment is (O1: O2). In real research the effect of treatment is analyzed by different tests, using t-test statistics for example. If there is a significant difference between the experimental group and the control group, the treatment given has a significant effect. The aim is to find out of the using ice breaking in teaching students' speaking. To get the significant effectiveness by comparing the post-test both of experimental class and control class.

According to Sugiono (2017:118) this design is present as follows:

R	X	O2
R		O4

Note:

R: Two groups were selected randomly

X: Treatment for experimental class

O2: Result of Post-testt (in experimental class)

O4: Result of Post-test (in control class)

B. Population and Sample

1. Population

In research, it is necessary to place restrictions on the population studied. According to Sugiyono (2017:222) population is a generalization is consisting of objects/subjects that have certain qualities or characteristics applied by researcher to study and draw conclusions.

The population of this research are the seventh grade of student at MTsN 3 Lima Puluh Kota. There are eleventh classes. For the total number of population as following:

Table 3. 1: Population of Research

Class	VII 1	VII 2	VII 3	VII 4	VII 5	VII 6	VII 7	VII 8	VII 9	VII 10	VII 11
Total Number of Student	32	32	31	32	30	31	31	32	32	32	28
Total of Population	**341**										

2. Sample

The sample is part of the object to be studied which represents the population that is able to describe the population optimally. Sample is a data collection procedure where only a portion of the population is taken and used to determine the desired characteristics and characteristics of a population (Syofian, 2013:18). In determining the sample there are several techniques in sampling.

Based on the number of populations above, it is large enough to be a research sample. The sample is homogeneous so it will use the Cluster Sampling Technique to select one of the classes to be sampled. The cluster sampling technique is the process of randomly selecting whole groups, not individuals in a population that is determined to have the same characteristics (Ridwan:20003). The researcher writes the numbers 1-11 on several small pieces of paper according to the total number of classes and cluster random sampling is done by lottery. The samples of this research are class VII-9 consist of 32 students as experimental class and VII-10 consist of 32 students as control class.

C. Technique of Data Collection

1. Treatment

The researcher will give the treatment using matchmaking game as ice breaking to student who are as experimental class meanwhile the control class are teach by conventional methods. The procedure explained as follow:

1) The first meeting the teacher will give explanation about what we will do in our class. After that the teacher will give the teaching material about describing people. Then, the teachers explain to the students about definition of describing people. After that the teacher will invite the students make a dialogue about describing people and invite the students practice in front of the class.
2) The second meeting the teacher will explain about the previous material. After that, the teacher using matchmaking game as ice breaking during teaching speaking exactly in describing people material.
3) The third meeting the teachers will give material about describing animal and explain about describing animal to the students. After that After that, the teacher using matchmaking game as ice breaking during teaching speaking exactly in describing animal material.
4) The fourth meeting the teachers provide same treatment, but this meeting the teacher will give material about describing animal and the teacher gave explanation about that material and the teacher implemented with matchmaking game as ice breaking.

5) The fifth meeting the teacher will provide the same treatment to the students as in the previous meeting, but in this meeting the teacher provide the different part of material to the students and the teacher provide with matchmaking game as ice breaking.

The first until the last meeting, the teacher always monitoring and handled the speaking class by matchmaking game as Ice breaking.

2. Post Test

After conducting the treatments, the researcher gives the students a posttest to get data in finding out the result of treatments. The procedure in administering the post test is the student will give the oral test and the students are given two minutes to speak about describing their favorite person. The posttest is administered to measure the students' progress after having the treatment or to find out the effect of the students speaking skill.

D. Research Instrument

1. Lesson Plan

Based on Permendikbud No. 22 of 2016 the Learning Implementation Plan is a face-to-face learning activity plan for one or more meetings. Lesson plan was developed from the syllabus to direct students' learning activities in an effort to achieve Basic Competence. The preparation of lesson plans is based on the Primary and Secondary Education Process Standards, it is stated that the preparation of learning tools is part of learning planning. Learning plans are designed in the

form of syllabus and lesson plans that refer to content standards. Apart from that, in learning planning, learning media and resources, assessment tools and learning scenarios are also prepared (Ardiani, 2016: 4-10).

According to Mulyasa in Eni Rindarti (2017) Learning Implementation Plan is a plan developmental learning refers to a Basic Competency specified in the curriculum/syllabus. Lesson made in the framework of the teacher's guide in teach so that the implementation can more focused, in accordance with that has been set. According to E. Kosasi in Eni Rindarti (2017) the understanding of the lesson plan is a plan developmental learning refers to a certain in curriculum/syllabus.

So based on several statement above lesson plan is a learning activity plan that is developed in detail from a certain main material/theme, refers to the syllabus, is prepared for one or more meetings, and is prepared to direct students in achieving basic competence.

2. Test

A test is a series of questions or exercises or other tools used to measure skills, knowledge, intelligence, ability or talent possessed by a group or individual (Arikunto, 2002:127). In this research, the researcher will use a speaking test in collecting data during the process of the research. The form of the speaking test is an oral test where the student will give two minutes to speaking about describing the person. The assessment of the speaking skills focuses of two aspects of

speaking, which are vocabulary and grammar.

3. Speaking score

a. Scoring classification

The speaking test assessment includes components: pronunciation, grammar, vocabulary, fluency, and comprehension. It consists of quality tests to assess a series of possible ratings. Ratings have a numerical value. The range of assessment varies in each aspect.

Table 3. 2: Scoring of speaking test

Aspect	**Weight Table**						**Total**
	1	**2**	**3**	**4**	**5**	**6**	
Accent	0	1	2	3	4	5	
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	16	20	24	

(Hughes, 1990: 110)

Table 3. 3 : Rubric for assessing speaking

Component for Assessing	**Score**	**Description**
Accent	1	Pronunciation frequently unintelligible.
	2	Frequent gross errors and a very heavy accent make understanding difficult, require frequent Repetition.
	3	Foreign accent requires concentrated listening, and mispronunciations lead to occasional misunderstanding and apparent errors in grammar or vocabulary.
	4	Marked foreign accent and occasional mispronunciations which do not interfere with understanding
	5	No conspicuous mispronunciations, but would not be taken for a native speaker
	6	Native pronunciation, with no trace of "foreign accent. “Grammar
Grammar	1	Grammar almost entirely inaccurate except in

		stock phrases.
	2	Constant errors showing control of very few major patterns and frequently preventing communication.
	3	Frequent errors showing some major patterns uncontrolled and causing occasional irritation and misunderstanding.
	4	Occasional errors showing imperfect control of some patterns but no weakness that causes misunderstanding.
	5	Few errors, with no patterns of failure.
	6	No more than two errors during the interview.
Vocabulary	1	Vocabulary inadequate for even the simplest conversation.
	2	Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc.).
	3	Choice of words sometimes inaccurate, limitations of vocabulary prevent discussion of some common professional and social topics.
	4	Professional vocabulary adequate to discuss special interests; general vocabulary permits discussion of any non-technical subject with some circumlocutions.
	5	Professional vocabulary broad and precise; general vocabulary adequate to cope with complex practical problems and varied social situations.
	6	Vocabulary apparently as accurate and extensive as that of an educated native speaker.
Fluency	1	Speech is so halting and fragmentary that conversation is virtually impossible.
	2	Speech is very slow and uneven except for short or routine sentences.
	3	Speech is frequently hesitant and jerky; sentences may be left uncompleted.
	4	Speech is occasionally hesitant, with some unevenness caused by rephrasing and groping for words.
	5	Speech is effortless and smooth, but perceptively non-native in speed and evenness.
	6	Speech on all professional and general topics as effortless and smooth as a native speaker's
Comprehension	1	Understands too little for the simplest type of conversation.
	2	Understands only slow, very simple speech on common social and touristic topics; requires constant repetition and rephrasing.
	3	Understands careful, somewhat simplified speech when engaged in a dialogue, but may require considerable repetition and rephrasing.

	4	Understands quite well normal educated speech when engaged in a dialogue, but requires occasional repetition or rephrasing.
	5	Understands everything in normal educated conversation except for very colloquial or low frequency items, or exceptionally rapid or slurred speech.
	6	Understands everything in both formal and colloquial speech to be expected of an educated native speaker.

Source: Hughes, 2003. Testing for Language Teachers, p. 131-132 (revised)

b. Classification of student score

The rating classification was used to provide the grades obtained by students. The following classification was used:

Table 3. 4 : Classification of student score

Classification	Scale	Rating
Excellent	6	86-100
Very good	5	71-85
Good	4	56-70
Average	3	41-55
Poor	2	26-40
Very poor	1	25-0

E. Technique of Data Analysis

To find out The Effect of Matchmaking Game as Ice breaking to Students' Speaking Skill at Grade VII MTsN 3 Lima Puluh Kota, researchers will analyze data using several steps, as follows:

1. Data Description

According to Sugiyono, descriptive research is research conducted to determine the value of independent variables, either one or more variables (independent) without making comparisons, or connecting them with other variables. Meanwhile, the main aim of descriptive research according to Sukardi is

to systematically describe the facts and characteristics of the object or subject being studied accurately. Sukardi states the steps for descriptive research as follows:

a. Identifying significant problems to be solved through descriptive methods.
b. Limit and formulate the problem clearly.
c. Determine the objectives and benefits of the research.
d. Conduct literature studies related to the problem.
e. Determine the framework of thinking, and research questions and/or research hypotheses.
f. Design the research method to be used, including determining the population, sample, sampling technique, determining data collection instruments, and analyzing the data.
g. Collect, organize and analyze data using relevant statistical techniques.
h. Create research reports.

The collected data in this study is given just as it is; no additional inferences are made from it, nor is it possible to forecast the future based only on the facts at hand. The researcher's next goal is to characterize and evaluate the symptoms found in the data in order to determine how well the Matchmaking Game as ice breaking has effect to the students' speaking skill of grade VII at MTsN 3 Lima puluh Kota.

2. Descriptive Analysis

Descriptive analysis is a statistical analysis used to describe the data that will be used in research to make conclusions that apply generally. The results of this descriptive data analysis are a summary of the samples to be processed, such as average, middle value, mode, etc.

a. Mean

The mean is a representative of a data set or an average value which is considered to be the value closest to the actual measurement results. Determining the mean can be done by adding up all the data values, then dividing it by the number of data. For more details to determine the mean can use the following formula:

$$M_x = \frac{\sum X}{\mathrm{N}}$$

b. Standard Deviation

Standard deviation is the distribution of data in a sample to see how far or how close the data values are to the average. One of the functions of the standard deviation formula is to provide an overview of the distribution of data relative to the average. To determine the deviation data can use the following formula:

$$SD = \sqrt{\frac{\sum x^2}{N}}$$

c. MAX

The MAX function is used to display the maximum (largest) value or number contained in a data cell/range.

d. MIN

The MIN function is the opposite of MAX where MIN is used to display the minimum (smallest) value or number contained in a cell/range.

e. Range

The range, which is usually given the symbol R, is a statistical measure that shows the distance between the lowest score and the highest score (Sudijono, 2009:144). Riefly can be formulated:

$$R = H - L$$

Note:
R : The range we are looking for
H : The highest score
L : The lowest score

3. Pre-Requisite Data Analysis
   a. Normality test

The aim of testing normality data is to know the spread of data or variables whether the spread of distribution of the data normally or not. The researcher used the Liliefors test to test the normality of the data. The steps were:

1. Arranged the data from the lower to the higher
2. Found the mean score ($\bar{x}$), the standard deviation (SD), and the variant ($S2$)

$$(\bar{x}) = \frac{\sum x}{N}$$

$$SD = \frac{\sqrt{\sum (fx)\ 2n-1}}{n-1}$$

$$S2 = \frac{\sum (fx)}{n-1}$$

3. Found the score of Zi with the formula

$$Zi = \frac{xi-\bar{x}}{s}$$

4. Found the score of F (Zi) by observed the score of Zi with Ztable
5. Found S (Zi)
6. Found the absolute score of F (Zi) – S (Zi)

7. Determined the higher score of absolute mark F (Zi) - S(Zi). It is named with Lo (Liliefors)
8. Determined the Lo score with Liliefors table with a certain degree of freedom (α: 0.05)
9. Took the conclusion, if Lo < L table or if L table> Lo it can be concluded that the data is distributed normally.

b. Homogeneity test

Homogeneity test is a statistical test procedure intended to show that two or more groups of sample data come from populations that have the same variance.

Levene's test

Homogeneity test calculations with the Levene test were carried out using

SPSS software. The steps to calculate are as follows following:

1. Enter variable data arranged in one column. After the first variable is entered, continue with the second variable starting from the blank line after the first variable.
2. Create class coding by creating a new variable that has been given "Label 1" for the first variable and "Label 2" for the second variable.
3. How to calculate Levene's test with SPSS is to select the menu: *Analyze*, *Descriptive Statistics*, *Explore* as shown in the following figure.

4. In the window that opens, enter the variables to be calculated its homogeneity in the *dependent list* section, and the class code in the *factor list* section. Then select the *Plots* button until the display appears as follows. Select *Levene Test* for *Untransformed*
5. Select the Continue button then select *OK*

   The homogeneity test produces multiple outputs. For research purposes generally, you only need the *Homogeneity of Variance Test* output, namely the output found in the *Options* menu.

6. The way to interpret the Levene test is, if the Levene Statistics value is > 0.05 then it can be said that the data variation is homogeneous.

c. Hypothesis Testing

Hypothesis testing is a statistical method used to determine whether there is enough evidence in a sample of data to draw conclusions about a population. This involves formulating a hypothesis that has been established by the researcher where the hypothesis is Students' speaking skills who are taught by using ice breaking game are greater than students who are teach by using conventional teaching methods and then collecting data to assess the evidence.

a. T-test

In this research, researchers used the T-test to test the hypothesis that had been proposed. The t-test is used to test whether there is a significant difference in the level of learning success between Students' speaking skills who are teach by using ice breaking and students who are teach by using conventional teaching methods. The T-test will use in this research specifically is Independent Sample T-test. The T-test will analyse by using SPSS version 25 software and criteria as follow:

When T-test result Positive (+)

1. If the ρ-value is higher than sig α = 0.05 (5%) then the alternative hypothesis is accepted
2. If the result indicates ρ-value or sig (2-talled) lower than the significance level of sig α = 0.05 (5%), then the null hypothesis is accepted.

When T-test result negative (-)

1. If the result indicates ρ-value or sig (2-talled) lower than the significance level of sig α = 0.05 (5%), then the alternative hypothesis is accepted

2. If the result indicates ρ-value or sig (2-talled) higher than the significance level of sig $\alpha = 0.05$ (5%), then the null hypothesis is accepted.