CHAPTER III
RESEARCH METHOD

A. Research Design

The design of this research was an experimental research. According to Gay, Mill, and Airasian (2000: 250) experimental research is the only type of research that can test hypothesis to establish cause and effects relationship. In experimental study, the researcher manipulates at least one independent variable, controls other relevant variables, and observes the effect on one or more dependent variable.

Gay (2000: 251) stated that, an experimental research typically involves a comparison of two groups, which are experimental group and control group. The experimental group typically receives a treatment, a treatment under investigation, while the control class usually receives a different treatment or is treated as usual.

There are two classes which were used in this research. The first was classified as the experimental class (E) and the other one was the control class (C). Both classes got the same topic, the same length of time and the same teacher. The experimental class would be taught by using Inside Outside Circle Technique and the control class would be taught by using conventional technique. The treatment would be given to experimental class about fifth meeting; every meeting researcher gave different topics. At the end of treatment, the researcher gave the students post-test.

In this research, the researcher used posttest only design. The posttest scores are compared to determine the effect of the treatment. According to Sugiyono (2014: 76) this design takes the following form:

Table 3.1
The Table Research Design

Group	Treatment	Post test
E	X	O1
C	------	O1

Where:
E =Experimental Group
C = Control Group
X = Teaching by using Inside Outside circle technique
O1 = Students' score of post test

B. Population and Sample

1. Population

Gay (2000:122) state that population the testing sample of the research can the researcher make inferences about the performance of the larger g to (2010:173) says that population is all of subject in research. Besides that, Encyclopedia of Educational Evaluation in

Sugiyono (2013:119) say that population is the generalization region that consists of object or subject that have certain qualities and characteristics, defined by the research to learn and then draw conclusion. The population of this research were all of the first year students at SMPN 4 Batang Kapas in the academic year of 2017/2018. There were three classes and the totals of students' class VIII were 92 students. As shown in the table bellows:

Table 2.2
Population of the Students at the eighth grades
At Junior High School 4 Batang Kapas

Class	Amount of students
VIII 1	33
VIII 2	32
VIII 3	27
Amount	92

Source: English Teacher of Junior High School 4 Batang Kapas

2. Sample

According to Gay (2000:121) sampling is the process of reflecting a number of individuals for which a study in such way that the individual represent the large group which it is selected. He also states that a good sample is the one that representative of the population from which is selected. Population of this research was the second grade of Junior High School 4 Batang Kapas. Researcher selected VIII A and VIII B of students in Junior High School 4 Batang Kapas sample. After that, the researcher used coin to determine which one both of experimental and control group.

Table 2.3
Sample of the Students at the eighth grades at
Junior High School 4 Batang Kapas

Class	Amount of the students
VIII- 1	33
VIII-2	32
TOTAL	65

C. Place and Time Research

The research was held at Junior High School 4 Batang Kapas. It was started on Mey until July 2018 conducted. The research was conducting on fifth meeting in several weeks by applying Inside Outside Circle technique to saw the effect on students' speaking ability.

D. Instrumentation

Instrument is a tool that is used to measure a data of the research. According to Sugiyono (2014: 92) instrument of research is used to measure a value of the research's variables. In this research, the researcher would be used speaking test in form of interview.

The instrument in this research was oral test. The researcher used oral test formed interview as instrument. The researcher gave some question to the students one by one student of the class about two or four minutes and then students answer the teacher question orally. And that the reseacher records the students' speaking. Then, researcher values the students' pronunciation, vocabulary, grammar, fluency and comprehentio, after that the reseacher gave score towards students' speaking performance.

While, in scoring the pre test and post test, researcher used the Hughes categories (2003:132), criteria 1-6 in scoring test, such as pronunciation, grammar, vocabulary, fluency, and comprehension.

E. Procedures of Research

1. Preparing

The researcher used two classes to collect the data, the researcher taught the students by using inside outside circle technique for experimental class, and conventional technique in control class. The material of the teaching was the same material. In short, the researcher had proposed this procedure:

a. Determine the research time.
b. Prepare the lessons plan arranged by the curriculum.
c. Explain to the students about the planning in learning process.
d. Prepare the final test.

2. Learning Pr

Teaching Pr for Experimental and Group

No	EXPERIMENTAL	OL CLASS
1	**Pre activities (10 minutes)** Apperception -Greeting -Praying -Checking students attendance **Motivation** -Remanding students about last material. -Teacher ask some question -Teacher introduces learning objective to studentents -Teacher writes a topic of the lesson on the Whiteboard	**Pre activities (10 minutes)** Apperception -Greeting -Praying -Checking students attendance **Motivation** -Remanding students about last material. -Teacher ask some question -Teacher introduces learning objective to studentents -Teacher writes a topic of the lesson on the Whiteboard

No	EXPERIMENTAL CLASS	CONTROL CLASS
2	**Whilst Teaching** **Exploration (60 minutes)** -Teacher introduces learning objective to students -Teacher give example of dialogue -Teacher asks the student to read an example of a dialogue **Elaboration** -The teacher gives the students clearly instruction of what students should do in learning spending. -The teacher divides the student into group to apply inside outside circle technique 1. Divided students into some group. One group consist of 6 persons. Students in pairs. One student from each pairs moves to form one large circle in the class facing outward. 2. Teacher remaining students find and face their partners (class now stands in two concentric circles) 3. After that inside circle students ask question from their question card, outside circle students answer. Inside circle students praise or coach. 4. Next teacher ask partner switch roles: outside circle students ask, listen, then	**Whilst Teaching** **Exploration (60 minutes)** -Teacher introduces learning objective to students -Teacher give example of dialogue -Teacher asks the student to read an example of a dialogue. **Elaboration** -The teacher asks to the student to sit in group of 3 member - The teacher ask the students to make dialogue about asking opinion, giving opinion and refusing opinion about smoking

No	EXPERIMENTAL CLASS	CONTROL CLASS
	praise or coach. 5. Ask partners trade question cards. 6. Ask Inside circle students rotate clockwise to a new partners Now they are ready for the next question. **Confirmation** -Teacher asks for the students to conclude the material. -After there is no responses from other groups, the teacher give any critics or suggestion to make better at future	 **Confirmation** -Finally, the teacher ask the brave students to perform in front of the class. -The other may give any response such as comment, question and critics. -Students ge supporting comments fr he teacher.
3	**Post-Activity (20)** -Teacher gives feedba teaching process. -Teacher and students conclude the lesson -Teacher give reflection (asking student response about the lesson). -Close the class	**Po ity (20 minutes)** cher gives feedback to the teaching process. -Teacher and students conclude the lesson -Teacher give reflection (asking student response about the lesson). -Close the class

3. After the treatment, each of the students would be tested

After doing the learning process, so the final test was post test about expressing opinion. The test was given to the students of experimental and control classes.

F. Technique of Data Collections

The data was collected by giving speaking test. Data of this research is the students' scores of post-test. The post-test was given at the end of treatment. Speaking test was given to both of control and experimental group for 75 minutes. The researcher gave treatment to experimental group for fifth times by using Inside Outside Circle. The aim to conclude the contribution of inside outside circle technique in teaching and learning process toward students speaking skill. The score of this research is based on students skill in speaking such as, pronunciation, vocabulary, grammar, fluency, and comprehension.

G. The Technique of Data Analysis

The researcher used the statistical procedures to analyze the scores. It gives a way to find the differences of speaking achievement between control group and experimental group. To find the standard deviation in experimental and control class, the researcher used the formula of t-test.

In this case, T-test means a statistical procedure which is used to determine, whether there was any significant difference between the means of the two sets score from control and experiment class. In analyzing the students' test score; there were some steps that would be done before analyzing the different mean by using t-test formula as follows:

a. This formula was applied to decide mean of students` test score in experimental and control group;

$$\overline{X_1} = \frac{\sum F_1 X_1}{\sum F_1}$$ (Experimental group)

$$\overline{X_2} = \frac{\sum F_2 X_2}{\sum F_2}$$ (Control group)

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

$$S_1^2 = \frac{n_1 \sum F1\ X1^2 - (\sum F1\ X1)^2}{n_1 (n_1 - 1)}$$

This formula was used to decide standard deviation of control group;

$$S_2^2 = \frac{n_1 \sum F2\ X2^2 - (\sum F2\ X2)^2}{n_2 (n_2 - 1)}$$

c. The formula of T-test is as follows (Sudjana: 2005) :

$$t = \frac{X_1 - X}{S\sqrt{\frac{1}{n_1} +}}$$

With:

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

Note:

X_1 = Mean score of experimental group
X_2 = Mean score of control group
S_1 = Standard deviation of experimental group
S_2 = Standard deviation of control group
n_1 = Number of experimental group
n_2 = Number of control group

The t_{table} was employed to see whether there was a significant difference between the mean score of both experimental group and control group. The value of $t_{obtained}$ was consulted with the value of t_{table} at the degree of freedom $(n_1-1) + (n_2-1)$ and the level of confidence of 95% = 0. 05. If the value of

t-$_{obtained}$ was less than the value t-$_{table}$, the null hypothesis was accepted; on the contrary, if the value of t-$_{obtained}$ is equal or bigger than value of t-$_{table}$, the alternative one was not accepted.