

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 a hypothesis to establish cause and effects relationship. In an 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 classes, which are experimental class and control class. The experimental class 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 would be involved in this research. The first is classified as the experimental class (E) and the other one is 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 Fishbowl Technique and the control class would be taught by using the conventional technique. The treatment would be given to an experimental class about the sixth 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 post-test 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 Three-step interview technique

O1 = Students' score of post test

B. Population and Sample

1. Population

According to Sugiyono (2014: 80) states that population is generalization region consisting of objects/subjects that have certain qualities and characteristics defined by the researchers to learn and then make conclusions. In the other words population is the total number of students on a research.

This research would be done at the state Junior High School 2 Sintoga, in this research the researcher took all students of eight grades; they are about 151 people and they divided into five classes. Each class consisted of 28 and 32 students. The population of the students was shown in the table below:

Table 3.2**Total of students in second grade at Junior High School 2 Sintoga**

NO	CLASS	MALE	FEMALE	TOTAL
1	VIII.1	17	15	32
2	VIII.2	10	27	32
3	VIII.3	15	13	28
4	VIII.4	17	13	30
5	VIII.5	13	16	29

Source: English Teacher data collection of Junior High School 2 Sintoga

2. Sample

According to Gay (2000:144) sampling is the process of reflecting a number of individuals for a study in such a way that the individual represents the large group for which it is selected. He also states that a good sample is the one that representative of the population from which is selected. To choose these classes which class would be a sample, the researcher chose a cluster sampling technique.

Gay (2000: 144) stated that clustering sampling technique is sampling that select group or population as sample randomly. To get the representative sample of this research the researcher did these steps:

- a. Collecting the score MID test scores the entire student's class VIII from the teacher.
- b. Test of normality, normality test has an objective to know the population normal or not. The researcher used Kolmogorov Smirnov and Shapiro Wilk to do the normality test, it is SPSS (Statistical Product and Service Solution) test. The data would be normality tests if every class is significant or more than 0.05.

Tests of Normality

Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
VIII1	.170	32	.020	.954	32	.182
VIII2	.188	32	.005	.925	32	.028
VIII3	.131	28	.200 [*]	.913	28	.041
VIII4	.181	30	.040	.890	30	.014
VIII5	.141	29	.200 [*]	.940	29	.199

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

c. Test Homogenitas Variances

After doing the normality test, the researcher analyzed the homogeneous variation test. This test has an objective as to know the sample homogeneity or not.



Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig.
Based on Mean	4.333	4	129	.003
Based on Median	3.363	4	129	.012
VAR00001 Based on Median and with adjusted df	3.363	4	88.530	.013
Based on trimmed mean	4.289	4	129	.003

d. After getting the classes, the sample of this research consisted of two groups: an experimental group and control group. Based on the five classes above, the researcher chose two classes as the sample. In determining the experimental group and control group, the researcher used flapping a coin. So, class VIII.1 was selected to control class and class VIII.2 was selected to be an experimental class.

Table 3.5
Sample of Research

No	Class	Total
1	VIII ₁ (Control class)	32
2	VIII ₂ (Experimental class)	32

C. Place and Time of the Research

This research would be conducted at State Junior High School 2 Sintoga on April until May 2018. The treatment would be conducted at class VIII.2 in second semester. The researcher gave treatment for five times of meeting in several weeks. After giving treatment for five times in classroom activities, the researcher gave post-test for both classes in sixth meeting and seventh meeting for the students is absent in previous meeting or in post-test, and also to see whether the use of Fishbowl Technique gives significant effect on students' speaking skill. In this case, the researcher would be compared the result of post-test in experimental and control class.


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D. Instrument of the Research

An 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 the speaking test in form of question-answer.

The instrument in this research was an oral test. A test, in simple terms, is a method of measuring a person's ability, knowledge, or performance in a given domain. (Brown, 2003:3). The researcher used an oral test formed questions-answer as the instrument. As stated by Brown (2003:159), question-and-answer tasks can consist of one or two questions from an interviewer, or they can make up a portion of a whole battery of questions and prompts in an oral interview.

The researcher gave some question to the students one by one in front of the class about two until four minutes and then students answer the teacher question orally. After that, the researcher records the students' speaking. Then, researcher values the students' pronunciation, vocabulary, grammar, fluency, and comprehension, after that the researcher gave score towards students' speaking performance.

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

Table 3.6
Weighting Table

Criteria	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	23
Total Score	16	33	50	66	83	99

Source: Hughes, 2003

E. Procedure of the Research

Teaching speaking process should be implemented as creative and communicative as possible the speaking since speaking was an interactive skill that acquires the teacher and students responses to all the activity. That's why Fishbowl technique applied in teaching and learning speaking in the classroom to be more interactive and communicative.

In this research, the researcher used two classes to conduct the research. They are an experimental class and control class. Both of classes were taught by the same material and the same teacher, the same length of time, but different treatment of the experimental class used Fishbowl technique in teaching speaking, while the control used teacher technique (conventional). In short, the researcher had proposed this procedure.

1. Determining the research time.
2. Prepare the lessons plan arranged by the curriculum.
3. Doing treatment for both experimental and control classes.

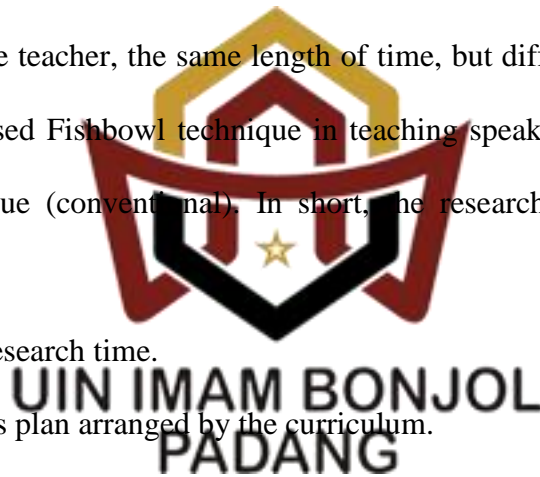


Table 3.7
Teaching Procedure for Experimental and Control Group

No	EXPERIMENTAL CLASS	CONTROL CLASS
1	<p>Pre-activity (10 minutes)</p> <ul style="list-style-type: none"> - Teacher greets the students - Praying - Teacher checks students' attendance - Teacher asks students about the last material - The teacher explains the aim of teaching and learning 	<p>Pre-activity (10 minutes)</p> <ul style="list-style-type: none"> - Teacher greets the students - Praying - Teacher checks students' attendance - Teacher asks students about the last material - The teacher explains the aim of teaching and learning
2	<p>Main Activity(60 minutes)</p> <p><i>Observing</i></p> <ul style="list-style-type: none"> - Teacher gives the students samples of recount text. - Teacher asks the students to read the sample texts - Teacher asks the students to observe the texts, such as goal, generic structure, and the language use. <p><i>Questioning</i></p> <ul style="list-style-type: none"> - The students ask the teacher what the text about what they read - Under the guidance of the teacher, students ask about some vocabularies they did not know. - Students ask some questions to the teacher based on the text that they do not understand, such as: 	<p>Main activity (60 minutes)</p> <p><i>Observing</i></p> <ul style="list-style-type: none"> - Teacher writes down the topic on the white board - Teacher modeled recount text - Teacher asks students to read the modeled recount text - Teacher asks students to read and identify the characteristic of a simple recount text <p><i>Questioning</i></p> <ul style="list-style-type: none"> - The students ask the teacher what the text about what they read - Under the guidance of the teacher, students ask about some vocabularies they did not know. - Teacher asks some questions to the students based on the text, such as: - 1) Who are the participants in the text?

<ul style="list-style-type: none"> - 1) What is the purpose of the text? - 2) What is the orientation of the text? 3) etc <p><i>Exploring</i></p> <ul style="list-style-type: none"> - The teacher explains the material about: - The purpose of the text - The generic structure of the text - Language use of the text - Teacher check students' understanding about the text (purpose, language feature, and generic structure) - The teacher introduces fishbowl technique to the students in general - The teacher arrange students into group inner circle and outer circle - Teacher asks students sit in inner circle and outer circle an inner circle there are 4-6 students and the other sit in the outer circle - The students select the topic that given by the teacher related to the topic <p><i>Associating</i></p> <ul style="list-style-type: none"> - The teacher ask the inner circle group to discuss the topic - The students in the inner circle have the freedom to speak - The students in outer circle must remain quit but can write down about the discussion - Students from the outer circle 	<ul style="list-style-type: none"> - 2) When did they go? - 3) Where did they go? - 4) What did they do there? - 5) What is the orientation of the text? 6) etc <p><i>Exploring</i></p> <ul style="list-style-type: none"> - The teacher explains the material about: - The purpose of the text - The generic structure of the text - Language use of the text - Teacher check students' understanding about the text (purpose, language feature, and generic structure) - Teacher asks the students to work in pair to make their own text. <p><i>Associating</i></p> <ul style="list-style-type: none"> - Teacher asks the students to work in pair to make their own text. - Teacher give students feedback on the students' work
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	<p>if she/he wishes to make any comment, asking question, and give critical about the discussion, or simply be in the inner circle, she/he must stand up, tap an inner circle member, and change seats.</p> <ul style="list-style-type: none"> - Students share information - Teacher monitoring the activities while the students discussing <p><i>Communicating</i></p> <ul style="list-style-type: none"> - Students perform a recount text about their camping experience based on their experience in oral in front of the class. - Teacher gives feedback toward students' speaking product 	<p><i>Communicating</i></p> <ul style="list-style-type: none"> - Students perform a recount text about their camping experience based on their experience in oral in front of the class. - Teacher gives feedback on the students' performance
3	<p>Post-Activity (10 minutes)</p> <ul style="list-style-type: none"> - Teacher gives feedback to the teaching process - Teacher and students conclude what they learned - Teacher gives the students homework - Teacher informs the next material. - Teacher close the class 	<p>Post-activity (10 minutes)</p> <ul style="list-style-type: none"> - Teacher gives feedback to the teaching process - Teacher and students conclude what they learned - Teacher gives the students homework - Teacher informs the next material. - Teacher close the class

4. After the treatment, each of the students would be tasted.

After doing the learning process, so the final test is post-test about Recount text.

The test was given to the students in experimental and control classes. The test was oral test formed interview.

5. The result was calculated by using the percentage of improvement.

The researcher scores based on criterion speaking by Hughes (2003:130-133), criteria 1-6, such as pronunciation, grammar, vocabulary, fluency, and comprehension.

F. The Technique of Data Collections

In this research, the techniques and method which could be used to gather evidence in action research were as follows: tape recording (handphone) and transcript, and interviewing (test). Data of the test consist of students' scores in post-test. The researcher gave five times treatment and post-test gave at the end of the research to both of the classes. The test was an oral test formed interview. In the test, the researcher gave them some questions to students and then the students answer orally

Post-test was aimed to conclude the contribution of Fishbowl in teaching and learning speaking process to students' speaking skill. The scoring of this research based on students skills in speaking such as, pronunciation, vocabulary, grammar, fluency, and comprehension. There were many scoring in speaking ability according to Hughes.

G. Technique of Data Analysis

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

1. This formula will be applied to the decision mean of students' test score in the experiment and control classes;

$$\bar{X}_1 = \frac{\sum F_1 X_1}{\sum F_1} \quad (\text{Experimental class})$$

$$\bar{X}_2 = \frac{\sum F_2 X_2}{\sum F_2} \quad (\text{Control class})$$

2. This formula will use to decide standard deviation of experimental class;

$$S_1^2 = \frac{n_1 \times \sum F_1 x_1^2 - (\sum F_1 X_1)^2}{n_1(n_1 - 1)}$$

3. This formula will use to decide standard deviation of control class;

$$S_2^2 = \frac{n_2 \times \sum F_2 x_2^2 - (\sum F_2 X_2)^2}{n_2(n_2 - 1)}$$

The formula of t-test as follows by Sugiyono (2014:128).

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

With;

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

Notes;

t	: The value of t calculated / observer / obtained
\overline{X}_1	: Mean score of the experiment sample
\overline{X}_2	: Mean score of the control sample
n_1	: The number of subject of the experimental class
n_2	: The number of subject of the control class
S_1^2	: Standard deviation of the experimental class
S_2^2	: Standard deviation of the control class

The t-table is employed to see whether there is a significant difference between the mean score of both experimental and control classes. The value of t-obtained is 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 will be accepted; on the contrary, if the value of t-obtained is equal or bigger than the value of t-table, the alternative one will not be accepted.

