

CHAPTER III

RESEARCH METHODOLOGY

This chapter consist of several parts, such as research design, population and sample, instrument, the schedule of collecting the data, try-out of instrument, data collections, and data analysis.

3.1. Research Design

This study used quantitative approach. Quantitative approach use for analyzing the statistical data in pre-test and post-test score. This study is categorize as Experimental research. Experimental research is the way to find a causal relationship in determining cause and effect. Mubarok (2015:88) state that Experimental research is a research method used to find a specific treatment effect againts the other in uncontrolled condition.

In this study there was two variable, they are Independent and dependent variable. An Independent variable is presumed to effect (at least partly cause) or somehow influence at least one other variable. The variable, that the independent variable is presumed to affect, is called a dependent variable. In commonsense terms, the dependent variable “depends on” what the independent variable does to it, how it affects it. Griffee (2012) stated that, Independent variable is the variable that the researcher suspects may relate to or influence the dependent variable. Independent variable usually use “X” as a symbol. The dependent variable is the variable of focus the central variable-on which the other variables

will act. It is usually the test and what it represents. The dependent variable is the one we are trying to explain; there can be more than one in a study. The symbol of this variable is “Y”.



So, in this study the independent variable (X) is Talking Chips technique, because this variable explain how to use Talking Chips technique to teaching speaking. Dependent variable (Y) speaking skill of the students. By using Talking chips technique is influence in teaching speaking at eighth grade of SMP N 1 Pakis Aji 2018/2019.

In this study, the writer applied a Quasi Experimental design. Mubarak (2015:101), The Quasi Experimental design has control group, but cannot fuction fully to control external variable that affect the implementation. This design used because it is in fact difficult to obtain a control group that use to research.

In this study used Pretest-posttest control group design. There are two groups randomly select, then give a pretest to determine the initial state in there any differences between the experimental group and control group. The writer use two classes, there are experiment class and control class. Experimental group is a class that will give treatment by using Talking Chip technique and control group is a group that give treatment without technique. The represented of pretest-posttest design:

EX	O1	X	O2
CO	O3		O4

Where :

EX : Experimental Class

CO : Control Class

O1, O3 : Pre-test score

X : Treatment using Talking Chips

O2, O4 : Post test score

(Mubarok, 2015:101)

3.2. Population and Sample

Mubarok (2015:38) state that population is a unit of the object or subject that has certain qualities and characteristics which are studied by the researchers then be deducted. As cited by Mubarok, (2015:38) in Sugiono (2010) stated that population is the generalization region consisting of the object/subjects that have certain quantity and characteristics defined by the researchers to be studied and then draw conclusion. Populations here means the person of living creature, and natural object in this world. The characteristic of population can be students' motivation, attitude, discipline, and other.

In educational study, population can be students, teachers, staff, curriculum, schools and other. It known that population is not only people in research, but also object or things in this world. Population not only amount

of research subject/object of research, but also the characteristic inside of the research (Mubarok, 2015:39).

The population of this study is the eighth grade students of SMP N 1 Pakis Aji in academic year of 2018/2019. The number of population is 156 divided into five (5) classes.

Table 3.1

Total population of eighth grade students of SMP N 1 Pakis Aji

Year of 2018\2019

CLASS	STUDENTS
VIII A	32
VIII B	28
VIII C	32
VIII D	32
VIII E	32
TOTAL	156

The writer did not use all the population but choose a sample as a technique of taking sampling. A sample is part of the population, the sample must be shown to be representative of the population (Griffie, 2012:54). The writer takes the sample use simple random sampling. The writer will use lottery for taking sample randomly.

The steps of taking sample as follows:

1. The writer wrote all the name of eight classes in small of papers

2. The writer rolled the papers and put them into the bottle
3. The writer shake a while
4. The writer took a two papers randomly and those name of classes inside the papers was the sample

Therefore, this research took two classes namely VIII D and VIII E. Before the writer decided the experimental class and controlled class, the writer checked the score of pre-test of both of classes. The scores of two classes in not too different. Class served VIII D as experimental class and class of VIII D served as a control class. The grade of VIII D as experimental class was taught using Talking Chips technique and the grade of VIII E as the control class without using Talking Chips technique. Both experiment class and control class were taken 32 students, totally the students of both of class is 64 students.

3.3. Instrument

Research instruments are simply devices for obtaining information relevant to your research project, and there are many alternatives from which to choose (Wilkinson & Birmingham, 2003:3). Instruments is a tool that used by researchers easier to collect the data in the research.

In this study the writer uses instrument to gather the data. The data that needed is the students speaking ability. The writer will use test as the instrument to get data. The instrument of test is 2 questions (for Pre-test and Post-test) consist of direct response tasks. The pure answer of the students is

accurately because data to assess the students speaking ability by using Talking Chips technique when they do the pre-test and post-test.

The rubric of speaking test are as the following :

Table 3.2

Rubric of Speaking Test (Estiningrum, 2014)

	Fluency	Pronunciation and accent	Vocabulary	Grammar	Details
5	Smooth and fluid speech; few to no hesitations; no attempts to search for words; volume is excellent.	Pronunciation is excellent; good effort at accent	Excellent control of language features; a wide range of wellchosen vocabulary	Accuracy & variety of grammatical structures	Excellent level of description; additional details beyond the required
4	Smooth and fluid speech; few hesitations; a slight search for words;	Pronunciation is good; good effort at accent	Good language control; good range of relatively well-chosen vocabulary	Some errors in grammatical structures possibly caused by attempt to	Good level of description; all required information included

	inaudible word or two.			include a variety.	
3	Speech is relatively smooth; some hesitation and unevenness caused by rephrasing and searching for words; volume wavers.	Pronunciation is good; Some effort at accent, but is definitely non-native	Adequate language control; vocabulary range is lacking	Frequent grammatical errors that do not obscure meaning; little variety in structures	Adequate description; some additional details should be provided
2	Speech is frequently hesitant with some sentences left uncompleted; volume very soft.	Pronunciation is okay; No effort towards a native accent	Weak language control; basic vocabulary choice with some words	Frequent grammatical errors even in simple structures that at times obscure	Description lacks some critical details that make it difficult for the listener

			clearly lacking	meaning.	to understand
1	Speech is slow, hesitant & strained except for short memorized phrases; difficult to perceive continuity in speech; inaudible.	Pronunciation is lacking and hard to understand; No effort towards a native accent	Weak language control; vocabulary that is used does not match the task	Frequent grammatical errors even in simple structures; meaning is obscured.	Description is so lacking that the listener cannot understand.

To take the score the reseacher then multiple in one hundred as the higher score. It can bee seen in the formulo as follows:

$$\text{Score} = \text{total student score} \times 4 = 100$$

3.5. The Validity of Tryout Test

In this research the writer used content validity. Content validity is used to measure the variables of interest. It is also known as: content related validity, intrinsic validity, relevance validity, representative validity and logical or sampling validity. It can be used to measure the appropriate sampling of the content domain of items in a questionnaire (Yaghmale F., 2003). In this research, the writer used rubric of speaking test to find out and checked validity of the instrument.

Table 3.5

Tabulation 2 x 2		Rater 1	
		Less relevant score 1-2	Very relevant score 3-4
Rater 2	Less relevant score 1-2	A	B
	Very relevant score 3-4	C	D

Formula :

$$V_i = \frac{D}{A+B+C+D}$$

(Ratna herawati sugianto, 2014)

Where, V_i = Construct validity

A = Both rater disagree

B = Rater 1 agree, rater 2 disagree

C = Rater 1 disagree, rater 2 agree

D = Both rater agree

Example :

$$V_i = \frac{D}{A+B+C+D}$$

$$V_i = \frac{4}{0+0+2+4}$$

$$V_i = \frac{4}{6} = 0,6$$

Criteria of content validity :

0,8 – 1 = Very high validity

0,6 – 0,79 = High validity

0,40 – 0,59 = Medium validity

0,20 – 0,39 = Low validity

0,00 – 0,19 = Very low validity

Table 3.6

The Validity of try-out test

Criteria	Number of items	Total number
Valid	4,5,	2 items
Invalid	1,2,3,	3items

From the table above it can be seen the try-out instruments had 2 Valid and 3 Invalid items. Based on the calculation that the result of trying

out test validity was 0,6. It means that the validity trying out test has a high validity.

3.6. Data Collections

The researcher used test to collect the data. The tests consist of some express of invitation. The test was given for getting objectives data from the students' speaking ability by using Talking Chips technique. There were two test of which were applied, those were pre-test and post-test. The pre-test was given before gave treatment, the test was applied in both experiment and control class. In the last, the researcher gave post-test after given the treatment.

The writer was conducted the research in SMP N 1 Pakis Aji. The steps of instrument that used in this research is :

1. Pre-test

Before the students in experimental group (received the treatment) and the control group, all the students in two groups got the pre-test.

2. Treatment

After doing the pre-test, the students in experimental group got the treatment at least 2 meetings. The experimental group and control group was teach with same materials by researcher. The difference of both of group in the treatment. Experimental class given treatment by using Talking Chips technique.

Table 3.7

The Activity of the Treatment

Group	Meeting	Treatment
Experimental	Meeting 1	<ul style="list-style-type: none"> - The writer engaged students relate to the material of express of invitation. - Students were divided into 6 groups then each group get 2 tokens learnt about express of intiving someone. - The students practiced in pair in front of class
	Meeting 2	<ul style="list-style-type: none"> - The writer reviewed the previous material - Students still learn the same material and the writer devided the students into groups and discuss the same materials with interactive quiz.
Control	Meeting 1	<ul style="list-style-type: none"> - The writer observed the teacher explained the materials - The teacher asked the students to make sentences.
	Meeting 2	<ul style="list-style-type: none"> - The teacher reviewed the materials and asked the students to presents their discussion in front of the class.

3. Post-test

Post test was given after the gave some treatments (experimental class), all the students in two classes completed post-test. The researcher gave same post test at in the end of the lesson. Post test can be the way to measure the success of applying the treatment.

3.7. Technique of Analysis Data

The important data would be collected through administering pre-test and post test. After getting data from the experiment, the writer processed statistically and analyzed them. The writer compared score from experiment class and control class.

To check the results of the students' speaking checked by the two raters were, the writer used a statistical measure of the data result. The data were analyzed using SPSS statistical application.