

CHAPTER III

RESEARCH METHOD

This chapter presents the research method. It focused on research design, population and sample, research instrument, validity and reliability testing, research procedure, data collecting method, and data analysis.

A. Research Design

This study used pre-experimental research design. Another name of pre-experimental design is one group pretest-posttest design (Borg, *et al* 1989:670). This study classified as pre-experimental research design because it has little or no control of extraneous variable. According to Latief (2014:96) this design involves only one group as its subject and it involves three steps; pretest, treatments, and posttest. Firstly, the group was given pretest before the experimental treatment. After the treatment was finished, the post test was administered. The effectiveness of the instructional treatment is measured by comparing the average score of the pretest and posttest.

The researcher used pre-experimental design with one group of students because the researcher cannot ensure the homogeneity between two groups. The design of this research can be seen at the table below:

Table 3.1 Diagram of One-Group pretest-posttest

Y1	X	Y2
Pretest	Treatment	Posttest

The procedures of pre-experimental research are:

1. Administering a pretest with a purpose of measuring speaking ability of the second grade students at MTs N Tunggangri before given treatment
2. Applying the experimental treatment of teaching speaking by using talking chips technique of the second grade students at MTs N Tunggangri
3. Administering a posttest with a purpose of measuring speaking ability of the second grade students at MTs N Tunggangri after given treatment

B. Population and Sample

1. Population

McMillan, (1996:85) states that a population is a group of elements or cases, whether individuals, objects, or events, that conform to specific criteria and to which we intend to generalize the results of the research. For a research that requires a large population for the source of the data, the first step is to define the target population. Target population in educational research usually is defined as all the members of real or hypothetical set of people, events, or objects to which educational researchers wish to generalize the result of the research (Borg *et al* 1989:216). The target population of this study is all second grade students of MTs N Tunggangri which consist of ten classes. The researcher took VIII B class as sample that consists of 42 students.

2. Sample

Charles, C.M.(1995:96) define a sample as a small group of people selected to represent the much larger entire population from which it is drawn. By

studying the sample it is hoped to draw valid conclusions about the larger group. A sample is generally selected for study because the population is too large to be studied study in its entirety. The sample should be representative of the general population.

In choosing sample, the researcher used a certain sampling technique. The purpose of sampling is to obtain a group of subjects who will be representative of the larger population or will provide specific information needed. The degree of representativeness is based on the sampling technique employed (McMillan, 1996 : 92). In this study the researcher used purposive sampling in choosing sample. Ary *et al*, (2010:156) stated “purposive sampling also referred to as judgment sampling. Sample elements judged to be typical, or representative, are chosen from the population” To get the representative result of this research, the researcher only chose those who were knowledgeable. It means that the sample had skill and knowledge in speaking. By implementing the talking chips technique to the classroom whose students were quite good in speaking (knowledgably), the effectiveness of this technique can be identified whether the progression of score came up or not at the end of research.

Based on the reason, the researcher should take one of ten classes from second grade students of MTs N Tunggangri which appropriate with the criteria. Therefore, the vice of curriculum have recommended VIII B class as subjects of the research because the students of the class are more knowledgeable in speaking than other class.

C. Research Instrument

Instrument has important function in this research. Frankel (2005: 112) states: "Instrument is the device the researcher uses to collect data". According to subagiyo (2007:53) actually there are two kinds of instruments; test instrument to measure students' achievement and non-test instrument used to measure attitude. In this research the researcher used test in order to measure the students' achievement. According to Nitko J (1989:32), "Test is a systematic procedure for observing persons and describing them with either a numerical scale or a category system". The main instrument of this research is speaking test. Underhill in Allison (1987: 119) presents a wide range of elicitation techniques of speaking test. The condensed list that follows is slightly adapted from Underhill's table of contents; discussion, oral report, decision making, role play, interview, learner-learner description and re-creation (e.g. describe picture, describe information to map), form filling, making appropriate responses, questions and answer, reading blank dialog, using series of pictures, giving instructions/ description/ explanation, etc.

In this test the researcher used series of pictures techniques in getting students' speaking score. The researcher used series of pictures because it is appropriate with the material which was tested that is "recount text". Recount text is text that has purpose to retell event or past experience in order to inform or entertain others. Here, the students should tell activity in every picture in the form of recount text. Another reason, the use of pictures will make students easier in telling the activity/making story, because the pictures will help them in organizing

idea. Moreover, series of pictures technique do not need preparation. It is suitable used for pretest and posttest which have limited time. The test here measure components that was taught in the treatment. The form of the test should make students speak based on the topic that the teacher gave, here the students should develop story use their creative thinking. It has appropriate with the activity in the treatment where students let to organized their idea through the topic that teacher gave in learning speaking

The test was conducted twice. Pretest was given before giving the treatment and posttest was given after giving the treatment. The format and level difficulty of pretest and posttest was same but it contains of different topic. In assessing students' speaking skill the researcher used scoring rubric as follows:

Speaking Rubric	4	3	2	1
Vocabulary	Uses varied vocabulary	Uses adequate vocabulary; some word usage irregularities	Uses limited vocabulary	Uses less vocabulary and it's not express anything
Content/Idea	The student's story appropriate with the generic structure of recount text without missing those aspect; orientation, event, reorientation	The student's story almost appropriate with the generic structure of recount text, only missing one aspect; orientation, event, reorientation	The student's story less appropriate with the generic structure of recount text; orientation, event, reorientation	The student's story inappropriate with the generic structure of recount text; orientation, event, reorientation
Fluency	Speaks fluently, any hesitations do not interfere with communication	Speaks with occasional hesitation	Speaks hesitantly because of rephrasing and searching for words	speaks in single word utterances and short patterns

Pronunciation	In pronouncing the words are perfect, there is no any wrong in pronouncing the words	In pronouncing the words are mostly very good, there is little wrong in pronouncing the words	In pronouncing the words are incorrectly, but just some of the word	In pronouncing the words are incorrectly, still has many wrong to pronounce the word
Grammar	Uses simple past tense and conjunction in telling the story, Limited mistake acceptable	Uses simple past tense and conjunction in telling the story but there are several mistakes	Uses simple past tense and conjunction in telling the story, many significant mistake	The student doesn't use simple past tense and conjunction, it totally wrong

D. Validity and Reliability Testing

To know whether the test is good or not, there are two important characteristics that should to be considered:

1. Validity

Latief (204:223) states validity is the correctness of the assessment. The validity of a test concerns whether it is measuring what we think and say it is measuring (Allison, 2002:85). There are four types of validity that can be discussed in relation to research; four types of validity, content validity, criterion related validity, construct validity, and face validity. In this study, the researcher use content validity to know the validity of test.

In this test, the researcher asked students to tell activity in the pictures in the form of recount text. The researcher made up the test based on the course objectives in the syllabus of second grade of MTs N Tunggangri.

a. Content validity

Content validity is a kind of validity which depends on careful analysis of the language being tested and of particular test. In the content validity, the coverage of task becomes the evidence. A test will have content validity if it represents sample of language skills. The researcher adjusted the test with the learning syllabus that contains of standard competence and basic competence. The contents validity in this research can be shown as follow:

Table 3.2 Content Validity

Standard competence	Basic competence	
1 Reveal meaning in oral functional text and simple short monolog in the form of recount text to interact with surrounding environment	1.2 Reveal the meaning in simple monolog by using variety oral language accurately, fluently, and appropriately to interact with the surrounding environment in the form of recount text	
Indicator	Speaking Task	Rubric
<ul style="list-style-type: none"> - The students are able to tell the story based on generic structure of recount text; orientation, event, reorientation - The students are able to use varied vocabulary - The students are able to use appropriate language pattern of recount in speaking; simple past tense, conjunctions, etc., - The students are able to pronounce the word or sentences fluently 	<p>Prompt: Choose one topic that you are interested in, then explain the activity or event in the pictures based on your own idea in the form of recount text!</p> <p>Topic : My holiday in the beach, spent my time in my favorite book store, my holiday in bali, my unforgettable experience : chase the kite, etc.</p>	<p>Students were assessed based on 5 elements as follows : vocabulary, content/idea, fluency, pronunciation, and grammar</p> <p><i>Standard of performance</i></p> <p>4 = very good 3 = good 2 = fair 1 = poor (see at appendix 3)</p>

b. Construct Validity

The construct validity of test is test which is capable of measuring certain specific characteristic in accordance with a theory of language behavior and learning (Heaton, 1975: 159). Construct validity is one kind of validity that is measures the ability which is supposed to measure. For speaking test, it should having such of knowledge of sub-abilities of speaking such as pronunciation, fluency. The sub-abilities only can be measured if the form of test in the form of oral test. Thus, the pretest and posttest used series pictures technique, in which students were asked to speak based on the pictures. Therefore, it can be said that these test has construct validity because the product of test is in the form speaking.

c. Face Validity

A test is said to have face validity if it measures what is supposed to measure. Face validity is hardly a scientific concept that is very important. A test which wasn't has face validity may not be accepted by test takers, teachers, education, authorities or employers. In this test, there are some aspects that were considered from this test to make a good test based on the validity.

- 1) The instruction must be clear for the students, what they should do in the test
- 2) In this test, the students of second grade are instructed to tell activity in the pictures in the form of recount text. Thus, the degree of difficulty of the test must be suitable with their level
- 3) The consideration of time allocation must be clearly. The researcher give limited time about three minutes for each students

2. Reliability

Reliability is necessary characteristic of any good test for it to be valid at all. Reliability means the stability of test scores; a test cannot measure anything well unless it measures consistently (Harris, 1969:14). In addition, reliability measures accuracy, consistency, and dependability of fairness of scores resulting from administration of particular examination. The result of a language skill assessment has high reliability if the result precisely represents the true level of the skill being assessed.

In this test the researchers used inter rater reliability where the researcher involved two raters in scoring the students' speaking ability. Rater reliability concerns to the stability or consistency with which test performances are evaluated. The rater here is one of eight semester students of IAIN Tulungagung of English department. The researcher chose the rater because; she can understand every point in the scoring rubrics.

Then the researcher analyzed the correlation of two scores by using person correlation which is called product moment Pearson. For analyzing the correlation, the researcher used SPSS 6.0 for windows. A test with a reliability coefficient of 1 has precisely the same result for a particular set of test-takers regardless of when it happened to be administered. On the contrary, a test which has a reliability coefficient of zero would give sets of results quite unconnected with each other. Quoting Lado's statement, Hunges (1989) mentioned that reliability coefficient for speaking test may be in the range of 0,70 to 0,79.

Table. 3.3 Reliability of Pretest

		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	.787**
	Sig. (2-tailed)		.000
	N	15	15
VAR00002	Pearson Correlation	.787**	1
	Sig. (2-tailed)	.000	
	N	15	15

Table 3.4 Reliability of Posttest

		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	.737**
	Sig. (2-tailed)		.002
	N	15	15
VAR00002	Pearson Correlation	.737	1
	Sig. (2-tailed)	.002	
	N	15	15

The table shows that the value of correlation of pretest is 0,78 and posttest is 0,73. Based on the correlation, it can be concluded that both of test is reliable.

E. Data Collecting Method

The data collecting methods and instrument are needed to obtain the research data. The method of collecting data used in this research was

administering test. According to Ary *et al*, (1985:189) the test is a set of stimuli presented to individual in order to elicit responses on the basis of which a numerical score can be assigned. In this research, the researcher used oral speaking test to know the students score of speaking skill. The tests were constructed by the researcher herself by using some source. The researcher used two kinds of test those are pretest and posttest.

F. Research Procedures

There are some procedures of conducted the research:

1. *Introduction step of research*
 - a. Consultation with vice of curriculum of MTs N Tunggangri and the English teacher about time of research, sample and population as the subject of the research
 - b. Arranging of lesson plan
 - c. Making research instrument, test, to measure the effectiveness of talking chips technique
 - d. Conducting validity and reliability of test
 - e. Analyzing the result of test to know validity and reliability of instrument which is used as research instrument
2. *The implementation step of research*
 - a. Pretest

Pretest was given to the students before doing treatment. The purpose of doing pretest is to get speaking score of the student's before doing treatment.

In pretest the researcher asked students to tell activity in the pictures based on their own idea or experiences in the form of recount text

b. Treatment

- 1) The researcher prepared the chips and explained the rules of talking chips activity to students.
- 2) The researcher divided students into 7 groups. Every one group consists of 5-6 students. Each student got two chips.
- 3) The researcher gave some topic related to recount text material and asked students to choose one topic that they are interested in.
- 4) The researcher asked them to develop the topic became story according to their idea or experience, and then the students should share their idea in group.
- 5) Every students who want to speak, must put the chips in the center of table
- 6) Any student with a chip continuous discussing using his/her chip
- 7) If one of students have used all of their chips, he/she wasn't allowed to speak until all of member also used all of their chips
- 8) If all chips have used, whereas the task wasn't finished yet. The group can took chance to share their chips again and continued to speak.

c. Posttest

Posttest was given to the students after giving the treatment. The purpose of doing posttest is to get speaking score of the student's after doing treatment.

In the posttest the students were evaluated individually like in the pretest. The students were asked to tell the activity in the pictures based on their own idea

or experience in the form of recount text. The topic in posttest was different with pretest but it had connection.

3. *The last step of research*

- a. Processed the data of pretest and posttest
- b. Analyzed the result of data
- c. Generated conclusion of the research based on the data tabulation

G. Data Analysis

In this research, the researcher used a quantitative data analysis technique to know the students achievement before and after being taught by talking chips technique. The quantitative data was analyzed by using statistical method. Here, the researcher conducted test to the students before and after taught by applying talking chips technique. The result of the test was compared to know whether there is significant different of the students' speaking score. Therefore, the researcher used paired sample T test at SPSS 6.0 for windows to analyze the data. The researcher used Paired sample T test because the data was gotten from one scorer but produce two kinds of scores; the score of pretest and posttest.