# CHAPTER III

# RESEARCH METHOD

This chapter presents research design, population, sample, research instrument, validity and reliability, normality and homogeneity testing, data collecting method, and data analysis.

## A. Method and Design of the Study

The research approach that used in this research is quantitative approach. It uses and deals with statistical calculation. The writer will use quasi-experimental design. Quasi-experimental are similar to randomized experimental designs that they involve manipulation of an independent variable but differ in that subjects are not randomly assigned to treatment groups. Quasi-experimental designs lack randomization but employ other strategies to provide some control over extraneous variable.

The purpose of researcher is to know different effect of the treatment between the experimental class that was taught by using talk show technique and control class which was taught without using talk show technique. Quasi-experimental design include two group which from each was given pretest and posttest. The procedure of quasi experimental design will be explained as follows: First, the researcher chose two classes from the first grade student of MTsN 1 Blitar that which both class have same average in speaking ability. So, it can represent the population on the average ability on speaking. Second, choose two classes that will be as the experimental class and control class.

Third, gave pretest to all subjects to know the ability from each subject on occasion of dependent variable. Forth, gave treatment for experimental class by applying talk show technique in speaking. In this case, the researcher gave explanation about talk show technique, then asked the students to make groups. After the students understood the technique, they were asked to practice the talk show technique by their group based on explanation that they got. While for the control class, the learning activities in speaking was done without applying talk show technique. The last procedure, experimental class and control class were given a posttest to compare the result. The design of experimental and control class follow (Ary, et.al: 2010):

**Table 3.1 Quasi-Experimental Design**

| Group | Pre-Test | Treatment | Post-Test |
|---|---|---|---|
| Experimental | Y1 | X | Y2 |
| Control | Z1 | - | Z2 |

Y1 : Students' speaking ability of experimental class in pre-test

Z1 : Students' speaking ability of control class in pre-test

X : Using Talk Show technique

Y2 : Students' speaking ability of experimental class in post-test

Z2 : Students' speaking ability of control class in post-test

## B. Population, Sample

### 1) Population

Population is all of what we investigated. Ary (2010:147) stated that population is defined as all members of any well-defined class of people, events, or subject.. The population of this research is the first grade students of MTsN 1 Blitar which consist of 10 classes. Each class consists of 37 until 40 students. The total population is 384 students.

### 2) Sample

Sample is taken from population. According to Ary, (2010: 47) sample is a portion of a population.. The population of this research was the seventh's grade students of MTsN 1 Blitar. The researcher took sample based on the classes that have same high average value in English lesson. In this research the researcher used purposive sampling technique to obtain the sample. In purposive sampling, also referred to as judgment sampling, sample elements judged to be typical or representative are chosen from the population (Ary et al, 2010:156). In this research, the researcher selected classes 7B consisting of 39 students as the control group of this study which was taught without applying talk show technique. Meanwhile, class 7C consisting of 40 students was selected as the experimental group was taught by applying talk show technique. The researcher chooses purposive sampling, that's why there will be class B and class C.

## C. Description of Treatment

The treatment of this research is Talk Show Technique, in which the researcher as teacher used treatment to solve students' speaking problems in the class. Talk Show is implemented in discussion group and it can make students more active. Besides, Talk Show technique can provide opportunities for students to develop their ideas in speaking practice.

In teaching speaking by using Talk Show technique, the research as English teacher provided the topic that was appropriate with the material in learning of syllabus. Then, the teacher explained the role of Talk Show Technique to the students. These are steps of Talk Show technique;

1. The teacher explains about the role of Talk Show technique;
2. The students make a group that consisting 5 students in each groups;
3. The group will perform one by one in front of the class;
4. The students in each group has different job, one student as host who will ask the guest, the other students as guest who will answer all questions and for other group that not perform as audience;
5. All students practice speaking based their roles;
6. The teacher guide the process of doing Talk show;

Talk show is very easily done by the teachers and students in the teaching and learning speaking process in the classroom, because the students can arrange the pieces of conversation by themselves. It is hoped the students be able to continue the talk show easily and smoothly.

## D. Research Instrument

Instrument plays an important role to collect data. There are many kinds of instruments, such as: test, interview, questionnaire, rating scale and etc. In collecting the data, the researcher used speaking test as the instrument of the study. Test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned (Ary, 2010:201). The test was done twice, before and after treatment (pretest and posttest). The pretest was used to see student's ability in speaking before treatment was given and the posttest was used to see student's ability in speaking after the treatment was given.

To asses students' speaking skill the researcher used scoring rubric that adapted from Blaz (2001) as follows:

**Table 3.2 Scoring Rubric**

| ASPECT | SCORE | INFORMATION |
|---|---|---|
| PRONUNCIATION | 4 | It is so clear that it is easy to understand |
| | 3 | Easy to understand even though the influence of the mother tongue can be detected |
| | 2 | There is a pronunciation problem so listeners need to full concentration |
| | 1 | There is a serious pronunciation problem that can not be understood |
| GRAMMAR | 4 | There is no or no grammatical errors |
| | 3 | Sometimes there are errors but not affect the meaning |
| | 2 | Often make mistakes so the meaning is difficult to understand |
| | 1 | Grammatical errors are so bad that they can not be understood |

| | | |
|---|---|---|
| VOCABULARY | 4 | Use the right words and phrases |
| | 3 | Sometimes using a less precise vocabulary so it should be explained again |
| | 2 | Often uses inappropriate vocabulary |
| | 1 | Vocabulary is so limited that conversations are impossible |
| FLUENCY | 4 | Very smooth. |
| | 3 | Smoothness is slightly disturbed by language problems |
| | 2 | Often hesitated and stalled due to language limitations |
| | 1 | Talk falter and stop so that conversation is not possible. |

## E. Validity and Reliability

Validity and reliability of instrument are integral parts in conducting a study since the instrument which will be used must be valid and reliable before using it to collect the data. In this study, the researcher ensured that the instrument (test) was valid and reliable by doing validity and reliability testing as follows:

1. Validity

   According to Gay (1992:154), validity is the most important quality of any test. Validity is concerned with what a test measures and for whom it is appropriate. In this study, the researcher used content validity and construct validity to know the validity of the test.

a. Content Validity

Content validity is a kind of validity which depends on careful analysis of the language being tested and of particular test. The researcher adjusted the test with the learning syllabus that contains of standard competence and basic competence.

Content validity is relevant. It means that the items or tasks in the test match what the test as a whole is supposed to assess. Where the objectives of the programmer are set out in detail, for example in a syllabus that lists skills or functions, then the content validity can be assessed by comparing the kind of language generated in the test against the syllabus (Underhill, 2006 : 106).

The instrument of study had content validity because the items were materials used for teaching speaking at the first graders of MTsN 1 Blitar. Also, the content validity since the tests was designed based on main competence and basic competence in syllabus Curriculum of 2013 since the school implements the Curriculum of 2013 in the time the researcher conducted this research. Table 3.3 shows the main and basic competence in the curriculum 2013.

**Table 3.3 Main competence and Basic Competence**

| Main competencies | Basic competence | Indicators |
|---|---|---|
| 4. Trying, processing, and serving in the concrete realm (using, parsing, composing, modifying, and making) and abstract realm (writing, reading, computing, drawing and composing) as learned in school and other sources in the same viewpoint / theory. | 4.3 Arrange a very short and simple textual and written transactional text involving action give and request information related to the name of the day, month, time of day, time of the day in the form of numbers, date, and year, with the correct social, textual, and linguistic functions of the context . | 4.3.1 Students are able to say the time of day and time in the form of numbers, dates, and years<br>4.3.2 Students are able to mention daily activities along with the timing of the event |

b. Construct Validity

Construct validity is any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception (Brown 2004:25). 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 speaking such as pronunciation, fluency. The pre-test and the post-test used oral test, in which students were answered the questions based on topic orally. It can be

said that these test has construct validity because the product test is in the form of speaking.

2. Reliability

Reliability of a test can be derived from reliability coefficient. Reliability as the degree of the consistency with which an instrument measures whatever is measuring (Ary:2010). Thus, it can be said that a reliable testis consistent and dependable. The range of reliability coefficient is 0-1. In this case, 0 means not reliable while 1 means perfectly reliable and the closer reliability coefficient to 1, the more reliable a test is.

To measure the reliability result of the test, the writer used rater reliability or scorer reliability, this kind of reliability testing is suitable for subjective tests which is involves the rater in the process of judgment such as writing and speaking test. In this research the writer use inter-rater reliability where the two scorers did the scoring and the two sets of scores gotten from the two scorers were calculated to get the correlation coefficient. The two scorers were the writer and the English teacher.

The criteria of reliability instrument can be divided into 5 classes a follows (Ridwan:2004), those are :

1. If the alpha cronbach score 0.00 – 0.20: less reliable
2. If the alpha cronbach score 0.21 – 0.40: rather reliable
3. If the alpha cronbach score 0.41 – 0.60: enough reliable

4. If the alpha cronbach score 0.61 - 0.80: reliable

5. If the alpha cronbach score 0.81 – 1.00: very reliable

The students' score obtained from the tryout shows in Table 3.4 for pre-test score and table 3.6 for post-test score. Score 1 is taken by the first rater and score 2 is taken by the second rater. Those scores are used to check the reliability of the test and the result is presented on the next table (Table 3.5 and Table 3.7):

**Table 3.4 Pre-test Score of Try Out**

| Name | Score 1 | Score 2 |
|---|---|---|
| A | 56 | 69 |
| B | 63 | 63 |
| C | 56 | 56 |
| D | 75 | 69 |
| E | 75 | 75 |
| F | 81 | 75 |
| G | 69 | 63 |
| H | 75 | 63 |
| I | 75 | 81 |
| J | 75 | 69 |

The result of the reliability testing conducted by the researcher can be seen in the table 3.5 as follows;

**Table 3.5 Pre-test Reliability**

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .754 | 2 |

From those tables above we can see that the reliability coefficient from the pre-test is 0,754.

**Table 3.6 Post-test Score of Try Out**

| Name | Score 1 | Score 2 |
|---|---|---|
| A | 63 | 75 |
| B | 75 | 69 |
| C | 69 | 63 |
| D | 81 | 75 |
| E | 81 | 81 |
| F | 75 | 81 |
| G | 81 | 81 |
| H | 63 | 69 |
| I | 69 | 69 |
| j | 75 | 75 |

**Table 3.7 Reliability**

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .739 | 2 |

The reliability coefficient from the post-test is 0.739. Based on cornbach's alpha interpretation as stated by Ridwan, it means that the pre-test and the post-test was reliable, so it can be conclude that the both test were reliable.

## F. Normality and Homogeneity Testing

1. Normality Testing

Data normality testing is conducted to show that the sample data come from a normally distributed population. In this research, the result of data both experimental and control group are tested with the helped of SPSS

program 20 version. The data included students' score in pretest and posttest. The output is seen by Kolmogrov-Smirnov column. Normality testing is done by using the rule of Asymp. Sig (2 tailed) as follows :

a. If Asymp. Sig (2 tailed) > 0.05, so the test distribution is normal.

b. If Asymp. Sig (2 tailed) < 0.05, so the test distribution is not normal.

**Table 3.8 The Output of Normality Testing in Pretest Data**

**One-Sample Kolmogorov-Smirnov Test**

| | | experiment | control |
|---|---|---|---|
| N | | 40 | 39 |
| Normal Parameters[a,b] | Mean | 67.81 | 67.95 |
| | Std. Deviation | 5.929 | 5.943 |
| Most Extreme Differences | Absolute | .190 | .195 |
| | Positive | .190 | .179 |
| | Negative | -.188 | -.195 |
| Kolmogorov-Smirnov Z | | 1.201 | 1.216 |
| Asymp. Sig. (2-tailed) | | .112 | .104 |

a. Test distribution is Normal.

Based on the result of computation with the helped of SPSS program 20 version, value of Asymp. Sig (2 tailed) from both pretest in experimental and control class are bigger than 0.05. The value of Asymp. Sig (2 tailed) of pretest in experimental class is 0.112 and it is bigger than 0.05 (0.112 > 0.05). It can be conclude that the test distribution is normal. Then, the value of Asymp. Sig (2 tailed) of pretest in control class is 0.104 and it is bigger than 0.05 (0.104 > 0.05). So, the test distribution is normal.

**Table 3.9 The Output of Normality Testing in Posttest Data**

**One-Sample Kolmogorov-Smirnov Test**

| | | experimental | control |
|---|---|---|---|
| N | | 40 | 39 |
| Normal Parameters[a,b] | Mean | 82.34 | 74.68 |
| | Std. Deviation | 6.771 | 6.404 |
| Most Extreme Differences | Absolute | .186 | .187 |
| | Positive | .164 | .172 |
| | Negative | -.186 | -.187 |
| Kolmogorov-Smirnov Z | | 1.175 | 1.165 |
| Asymp. Sig. (2-tailed) | | .126 | .132 |

a. Test distribution is Normal.

Based on the result of computation with the helped of SPSS program 20 version, value of Asymp. Sig (2 tailed) from both posttest in experimental and control class are bigger than 0.05. The value of Asymp. Sig (2 tailed) of posttest in experimental class is 0.126 and it is bigger than 0.05 (0.126 > 0.05). It can be conclude that the test distribution is normal. Then, the value of Asymp. Sig (2 tailed) of posttest in control class is 0.132 and it is bigger than 0.05 (0.132 > 0.05). So, the test distribution is normal.

2. Homogeneity Testing

   The homogeneity test is conducted to know whether the variety of data both experimental and control classes is same or not. Homogeneity test is important since the result of research will be generalized in a population. In this research, a researcher conducts testing the homogeneity with the helped of SPSS program 20 version. The homogeneity testing must fulfill the testing criteria as follows:

a. P-value or Sig. is ≥ 0.05 means the data have same variant or homogeny

b. P-value or Sig. is < 0.05 means the data have different variant or not homogeny.

**Table 3.10 The Output of Homogeneity Testing**

**Test of Homogeneity of Variances**

Pretest

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1.206 | 1 | 77 | .276 |

Based on the table above is known that the sig/p value is 0.276 higher than 0.05 means $H_0$ is accepted and Ha is rejected. So, the homogeneity testing of variance in pretest of control class and experimental class show that the data had homogeneity of variances and can be used as sample in this research.

## G. Data Collecting Method

Data collecting method deals with how the researcher get the data. The data of this research were collected by administering test. The researcher was used speaking test as the instrument. The type of speaking test which used is oral speaking test. It purposes is to measure the students' speaking skill by using English. The researcher gave speaking test on the first meeting intending to know how well the students' speaking skill before being taught by applying talk show technique. The researcher conducted two kinds of test those are pretest and posttest.

1. Pretest

   Pretest was administered before doing the experimental research or before the researcher applying talk show technique (treatment). The purpose of doing pretest is to get speaking score of the students before doing treatment. In pretest, the researcher called the students one by one to come in front of the class and sat in front of the researcher's table. Then, the researcher gave 10 questions that the student must answer orally.

2. Post-test

   Posttest was administered after doing the experimental research or after finishing of giving treatment. The purpose of doing posttest is to get the students' speaking score after doing treatment. In the posttest, the students were evaluated individually like in the pretest. The form of test was same with pretest. the researcher gave 10 questions that the student must answer orally.

## H. Data Analysis

After the data have been collected from the data collecting result, the researcher should analyze the data immediately. The data or the score of experimental and control class test should be analyzed to know the effectiveness of applying talk show technique in this research. The researcher divides the test result into two groups, they are experimental group and control group. The score of the spoken test of both groups are analyzed. The researcher uses statistical analysis to analyze the collected

data using t-test formula with the helped of SPSS program 20 version. T-test technique is a statistical technique which is used to testing the difference significance of 2 mean which comes from 2 distributions. Based on the statement above, this research used t-test in order to differentiate the students' result of speaking ability who were taught by applying talk show technique and those who were taught without applying talk show technique was significant or not.