CHAPTER III

RESEARCH METHOD

This chapter discusses the methodology used in conducting this research. It presents the research design, population and sample, reseach instrument, data collection method and data analysis.

A. Research Design

Reasearch design contains everything about the way of collecting data. Milan and Schumacher (2001:32) state that in an experimental model inquiry the writer manipulates what the subject will experience. The writer makes comparison between subjects who have not had the imposed conditions or between subjects who have experienced difference conditions.

In this research, the writer used pre-experimental design in the form of one-group pre-test and post-test. In wich, the group is given a pre-test before the treatment. After, the treatment is finished the post test is administered to see the achievement. The effectiveness of the instructional treatment is measured by comparing avarage score of the pre test and post test. When, it turns out that the post test avarage score is significanttly higher than the avarage score of the pre test, then it is concluded that the instructional treatment is effective. The design of this research as recomended (Ary, 2006:328) is presented as follows:

Table 3.1. One Group Pretest-Posttest Design

Pretest	Indenpendent Variable	Posttest
Y1	X	Y2

From the table above, it means that the researcher administer a pretest (Y1) with a purpose of measuring students' listening achievement before using (dictogloss technique) indenpendent variable. Then, the researcher applied dictogloss technique (X) to the subjects. Last, the researcher administer a posttest with a purpose of measuring students'listening achievement after giving a treatment. Differences attributed to application of the treatment ate then evaluated by comparing the pretest and postest scores.

In this research, the dictogloss as the teaching technique is independent variable and becomes the major variable to be investigated while the variable that is influenced by the independent variable in the research is the listening skill as dependent variable. This study deals with effectiveness of using dictogloss technique in teaching listening. Accordingly, the writer needs to conduct pre-experimental research which used statistical method. The writer is using pre-experimental because this study, the writer is going to find out the effectiveness of teaching strategy in teaching listening.

B.   **Population**

        According to Millan and Schumacher (2001: 196): "A population is a group of element or cases, whether individuals, objects, or events, that conform to specific criteria and to which we intend to generalize the results of the research." Based on the definition above, the populations on this research is eight grade of MTs Al-Huda Bandung Tulungagung in Academic Year 2014/2015. It consist of 186 students divided into 6 classes. In which each class consist of between 24 until 34 students.

C.   **Sample and Sampling**

        In this section contain with sampling and sampling that would be discuss in this subchapter.

1.   Sample of the Study

        Sample is part of a number an characteristics which have by the population (Sugiyono 2006 :73). In order to take the sample, the writer took VIII A which consist of 22 students male and female given treatment using dictogloss technique to improve their listening ability. The researcher chooses this sample because the teacher in MTs Al-Huda suggested to take the class for the research.

2.   Sampling Technique

        To take the sample, the researcher needs sampling technique. Sampling technique used to take sample (Sugiyono, 2008: 116). From

the statement, can be defined that sampling is the process of selecting a number of individual as a sample who present the population.

In this research, the researcher uses purposive sampling to obtain the sample. A purposive sampling is a sampling which taken based on knowledge of a populations and the purpose of study. The subjects are selected because of some characteristic. One of teacher in Mts al-huda say that "eight grade A class have a good knowledge and active in the class especially in teaching learning process". So, the teacher suggested to take A class for the research to make easier to collect the data. There are many factors in using this technique such as the limitation of time. In this case, the researcher uses this technique because she has purpose limited times in this research.

D.   Research Instrument

Research instrument in setting the data to make it easier (Arikunto, 2002: 136). So, to collect the data, the researcher needs instrument. The instrument in this research is a test, including pre-test and post-test. Both the test have a same topic in question, the topic is about narrative text, but different story in question, the pre-test story is a "the lion and the mouse" and the post-test story is "an ant and grasshopper". Both the test have same type of question in the form of 10 fill the blank, 5 multiple choice, and 5 true false. So, the total number is 20 question.

The researcher used scoring procedure to gather the data in the form of number. The students who answered correctly in each question got the score one, and if they had wrong answered in each questions, they got zero. So, if they can answer all questions, they got score twenty, and the maximal grade is a one hundred. In addition, to get the individual grade from each student, the researcher used the following formula:

The student individual grade $= \frac{The obtained score}{The total number}$ X 100

From the formula above, it means that the students score which they get from the test is divided the total number of question then times of one hundred. So, the individual grade from each student is find from the ways.

E. Validity and Reliability Testing

Heaton (1989: 159) defines the validity of a test as the content to which it measures what it is supposed to measure and nothing else. It means that, validity concerned with what a test measures and for whom it is appropriate, because a test that validity in one situation may not valid in other situation. Test validity presuppose that the writer can be explicit about what is to be tested and takes steps to ensure that the test reflects realistic use of particular ability to be measured (Weir, 1993:19). Based on this research, the researcher would use content validity and face validity to know validity of test.

A test is said to have content validity if its contents constitutes a representative sample of the language skills, structures, etc, being tested

(Hughes, 1989:20). The test have content validity if it includes a proper sample of the structure or content which is relevant with the purpose of the test. Therefore, the materials used in this research were taken from English in focus book , internet and it us suitable to syllabus for eight grade junior high school in the second semester. That was described below:

Table 3.2. The Material

No.	Material	Standard Competence	Indicator
1.	1.Teks narrative (fable story)	8. Merespon makna yang terdapat dalam monolog pendek sederhana secara akurat, lancar, dan berterima untuk berinteraksi dengan lingkungan sekitar dalam teks berbentuk *narrative* dan *recount*	1. Mengidentifikasi berbagai informasi dalam teks monolog narative dan recount 2. Mengidentifikasi tujuan komunikatif teks naratif dan recount

Based on the table above, the test have content validity because appropriate with the purpose of the test and based on the syllabus in eight grade of junior high school in the second semester.

According to Hughes (1989:33), a test said to have face validity if it looks as if it measure what is supposed to measure. In this test the researcher give the testto measure listening ability especially in narrative text. A test which does not have face validity may not be accepted by test-taker, teachers, education authorities or employers.

In this research, the research asks to the English teacher in MTs Al-huda to validity the instrument that used in this research. The researcher give validation sheet for the teacher. The validation sheet

contain with validation indicator and validation score. Validation score consist of five rating. Validation has score "1"show that the lowest score for validation score, validation has score "2" show that the low score, validation has score "3" show that the enough score, validation has score "4" show that the high score, and validation has score "4" show that the highest score for validation indicator. In this instrument, the teacher give score "4" to all indicators. It means that, the instrumens can be said that the instrument has a high validity. Whereas, the validation sheet can be seen in appendix 10.

Furthemore, A reliable test is consistent and dependable. Ary (2002: 250) states that reliability is concerned with the effect of such random errors of measurement on this consistency of scores. If the students are given the same test on two different occasions, the test should produce similar result. The word 'similar' is used here because it is almost impossible for the test-takers to get exactly the same scores when the test is repeated the following day. Therefore, the more similar the score are more reliable.

The researcher gives the test to the students in other class in the same grade and the same questions of post-test to know the reliability of the test. Try out test was done on April 20th 2015 in MTs Al-huda Bandung Tulungagung. The reliability of the test can be estimated by using Kuder Richardson formula (KR-20) adapted from Arikunto (2009:100). As follows:

$$r_{11 =}\left[\frac{n}{n-1}\right]\left[\frac{s_t^2 - \sum p1q1}{s_t^2}\right]$$

Where:

r_{11} : Reliability test

N   : The sum of items

S_t^2 : Standard deviation

$p1$: The subject propportion that answer the item correctly

$q1$: The subject propportion that answer the item wrongly

$\sum p1q1$: The sum between p1 and q1

The result of Try out (See Appendix 6)

In this section contain with the resultof try out would be discuss in this subchapter.

Table. 3.3. The preparatory to compute the standard deviation

No.	Name	X_t	X_t^2
1	A	15	225
2	B	17	289
3	C	14	196
4	D	15	225
5	E	16	256
6	F	10	100
7	G	13	169
8	H	10	100
9	I	12	144
10	J	14	196
11	K	15	225
12	L	15	225
13	M	12	144
14	N	11	121
15	O	12	144
16	P	14	196
17	Q	15	225

18	R	17	289
19	S	14	196
20	T	8	64
21	U	10	100
22	V	8	64
23	W	9	81
24	X	12	144
25	Y	12	144
26	Z	14	196
27	O	16	256
28	P	14	196
29	Q	9	81
30	R	17	289
31	S	12	144
32	T	13	169
		$\sum Xt = 373$	$\sum_{Xt} 2 = 5593$

To know $\sum x_t^2$ the formula below was used:

$$\sum x_t^2 = \sum x_t^2 - \left(\frac{\sum Xt}{N}\right)^2$$

Where:

$\sum x_t^2$: The sum of correct answer.

$$\sum x_t^2 \quad = \sum x_t^2 - \left(\frac{\sum Xt}{N}\right)^2$$

$$= 5593 - \left(\frac{373}{32}\right)^2$$

$$= 5593 - 135.86$$

$$= 5457.14$$

Therefore, the standard deviation is

$$\sqrt{S_t^2} = \sqrt{\frac{\sum x_t^2}{N}}$$

$$= \sqrt{\frac{5457.14}{32}}$$

$$= \sqrt{170.53}$$

$$= 13.05$$

Table. 3.4. The table to compote the reliability by using kuder Richardson formula (KR-20)

Item	Np	P_1	Nq	Q_1	P_1Q_1
1	32	0	0	0	0.0
2	29	0.90625	3	0.09375	0.0849609375
3	23	0.71875	9	0.28125	0.2021484375
4	29	0.90625	3	0.09375	0.0849609375
5	18	0.5625	14	0.4375	0.24609375
6	13	0.40625	19	0.59375	0.2412109375
7	29	0.90625	3	0.09375	0.0849609375
8	19	0.59375	13	0.40625	0.2412109375
9	24	0.72	8	0.25	0.18
10	22	0.6875	10	0.3125	0.21484375
11	25	0.78125	7	0.21875	0.1708984375
12	18	0.5625	14	0.4375	0.24609375
13	15	0.46875	17	0.53125	0.2490234375
14	22	0.6875	10	0.3125	0.21484375
15	23	0.71875	9	0.28125	0.2021484375
16	18	0.5625	14	0.4375	0.24609375
17	13	0.40625	19	0.59375	0.2412109375
18	28	0.875	4	0.125	0.109375
19	18	0.5625	14	0.4375	0.24609375
20	21	0.65625	11	0.34375	0.2255859375
					$\sum p_1 q_1 = 4.274921875$

Therefore, the reliability is:

$$r_{11} = \left[\frac{n}{n-1}\right]\left[\frac{s_t^2 - \sum p1q1}{s_t^2}\right]$$

$$r_{11} = \left[\frac{20}{20-1}\right]\left[\frac{13.05 - 4.274921875}{13.05}\right]$$

$$r_{11} = \left[\frac{20}{19}\right]\left[\frac{8.775078125}{13.05}\right]$$

$$r_{11} = [1.0526316789][0.6724197797]$$

$$r_{11} = 0.7078103616$$

Based on the result above, the reliability is 0.70. So, it can be said that the test is reliable. Based on coefficient of correlation, the class of reliability test can show in the criteria of coefficient correlation as follows (Sugiyono, 2009: 231)

Table 3.5. The Criteria of Coefficient Correlations for Reliability of Test

No.	Score of Coefficient Correlation	Criteria
1.	0.00 – 0.199	Very Low
2.	0.20 – 0.399	Low
3.	0.40 – 0.599	Sufficent
4.	0.60- 0.799	High
5.	0.80 – 1.000	Very High

Therefore, it can be inferred that the test have high scores of reliability because the scores Between 0.70 and 0.89. (See table 3.5).

F. Data Collection Method

Method of data provide reality about some steps which are used in the process of collecting data. To get the data the researcher used method of data collecting as follows:

1. Pre-test

Pretest is given to the student before the treatment to know the students ability in listening skill. It is given to know their mastery in listening before treatment. It is the first method of data gathering is used by the researcher. The researcher give a pre-test in the first meeting to know students' listening abilities before having treatment. The pre test is held by the researcher on 23th april 2015.

2. Treatment

Treatment is given after pre-test. The researcher gave five treatment to the students using dictogloss technique, as follows:

a. The first treatmen was done on 29th april 2015. The treatmen consist of four stages based on the dictogloss technique, as follows:

   1) Preparation

      The teacher prepare the students by ask the question. The question relevan with what they will be hearing on the dictation stages. The researcher ask the students five question, the question are:

      a) What do you like a bird?

      b) What do you like a crow?

      c) What do you have a crow in your house?

      d) What the food of crow?

      Last, the teacher give a list vocabulary based on the topic who they will be hear in dictation stages and ask the students to memorise the vocabulary.

   2) Dictation

      The students hear the sound twice. First, the students just listen while comprehend the sound. Second, the students take a notes what they assume the important sentences from the sound.

3) Reconstruction

In this stages, the students pool a note and give conclusion about what they hear from the sound. In this stages, the teacher does not provide any language.

4) Analysis and Correction

The teacher give feedback for the students. The teacher discuss together with the students about the students problem in comprehend the text.

b. The second treatmen was done on 30th april 2015. The treatmen consist of four stages based on the dictogloss technique, as follows:

1) Preparation

The teacher prepare the students by given a picture. The picture relevant with what they will be hearing on the dictation stages. The story who they will be hear is Cinderella. The teacher, give a five pictures to stimulus the students to guess what they will be hearing in dictation stages. The first picture is about the castle, second is about the princess and prince in the castle, Third is about clock that show 12 o'clock, the fourth is about shoes, and last picture is about prince and princess married.

2) Dictation

The students hear the sound twice. First, the students just listen while comprehend the sound. Second, the students take a notes what they assume the important sentences from the sound.

3) Reconstruction

In this stages, the students pool a note and give conclusion about what they hear from the sound. In this stages, the teacher does not provide any language.

4) Analysis and Correction

The teacher give feedback for the students by discuss together the result answer of the students and played again the sounds to repeat the content of the text. Then the teacher ask the students about the problem of the students in the lesson. Last, the teacher ask the students to practice listening using dictogloss technique in their house.

c. The third treatmen was done on 13th April 2015. The treatmen consist of four stages based on the dictogloss technique, as follows:

1) Preparation

The teacher prepare the students by vocabulary. The vocabulary is target word who they will be hearing in the dictation stages. The teacher ask the students to mention the

vocabulary about the crocodile and the monkey because the topic who they will be hear is about thethe crocodile and the mokey story. The teacher write down who students mention in the whiteboard with translete into Indonesia language and ask the students to memorise the vocabulary.

2) Dictation

The students hear the sound twice. First, the students just listen while comprehend the sound. Second, the students take a notes what they assume the important sentences from the sound.

3) Reconstruction

In this stages, the students pool a note and give conclusion about what they hear from the sound. In this stages, the teacher does not provide any language.

4) Analysis and Correction

The teacher give feedback for students by discuss together the result of students answer. The teacher ask the students about students' problem in the lesson today. Last, the teacher ask the students to practice using dictogloss technique in their house.

d. The fourth treatmen was done on 19th Mei 2015. The treatmen consist of four stages based on the dictogloss technique, as follows:

1) Preparation

   The teacher prepare the students by watching a picture on LCD. The picture is relevant with what they will be hearing in the dictation stages. The teacher ask the students to guess the picture. The story is about the turtle and the rabbit. The teacher give five picture for the students. First picture is about the turtle. Second is about the rabbit. Third is about race. Fourth is about animal (cartoon) which take a rest in the under of tree. The last picture is about animal (cartoon) which be a winner.

2) Dictation

   The students hear the sound twice. First, the students just listen while comprehend the sound. Second, The students take a notes what they assume the important sentences from the sound.

3) Reconstruction

   In this stages, the students pool a note and give conclusion about what they hear from the sound. In this stages, the teacher does not provide any language.

4) Analysis and Correction

   The teacher give feedback for the students by discuss together the result answer of the students and played again the sounds to repeat the content of the text. Then the teacher ask the students about the problem of the students in the lesson. Last,

the teacher ask the students to practice listening using dictogloss technique in their house.

e. The fifth treatmen was done on 21th Mei 2015. The treatmen consist of four stages based on the dictogloss technique, as follows:

1) Preparation

The teacher prepare the students by give a list of vocabulary relevant with what they will be hearing in dictation stages. Then, the teacher ask the students to discussed it with their friends to translete the vocabulary into Indonesia language. Last, the teacher ask the students to memorise the vocabulary.

2) Dictation

The students hear the sound twice. First, the students just listen while comprehend the sound. Second, The students take a notes what they assume the important sentences from the sound.

3) Reconstruction

In this stages, the students pool a note and give conclusion about what they hear from the sound. In this stages, the teacher does not provide any language.

4) Analysis and Correction

The teacher give feedback for students by discuss together the result of students answer. The teacher ask the students about

students' problem in the lesson today. After that, the teacher ask the students to practice using dictogloss technique in their house. Last the teacher inform with the students, the next meeting will be do a test using dictogloss technique with the topic about narrative text.

3. Post test

The post test is given after the treatment finished. The objective of this test was to get the data about the result of the treatment to be analyzed in odrer to know the improvemment of the student's listening skill achievement using dictogloss technique. The pre test is held by the researcher on 26th Mei 2015. The post test is given for the students using dictogloss technique, as follows:

a. Preparation

The teacher gave a script to the students, she played the story again and the students listened to the story while they were scrutinizing the story line from the text. Then, the teacher asked the students to underline the difficult word from the script. After that, The teacher asks the students to discussed it with their friends and asks the student to memorize the difficult word. Finally, the researcher ask the students to give back the script.

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a. Preparation

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b. Dictation

The learners hear the sound twice. First, the students just listen while comprehend the sound. Second. The students take a notes what they assume the important sentences from the sound.

c. Reconstruction

The learners pool notes and produce their version of the text who they hear in dictation stages. During this stages it is important who the teacher does not provide any language.

d. Analysis and Correction

The teacher give feedback for the students. The teachers give conclusion about the lesson, and give solution about the students problem had with text comprehension.

G. Data Analysis

After the data produced by experimental studies are quantitative and as such the author who actually conducts a study examines the data use statistical procedure. After that the author use t-test, it used to analyse the data from the pre-test and post-test. If the t-score is bigger than t-table, it can conclude that Ha is accepted and Ho is rejected. The data are analyzed using the following of t-test adapted from Airuddin in Aisyiyah (2013:42) as follows:

$$t \quad = \frac{D}{SxD}$$

1. **D** $\quad = \frac{\Sigma d}{N}$

2. **SD** $\quad = \sqrt{\frac{\Sigma D^2}{N} - D^2}$

3. **S x D** $\quad = \frac{SD}{\sqrt{N-1}}$

To analyze the data from the test, researcher conducts some steps:

a. To find out the rate of average of pre test (x) and the rate of post test (y) the researcher uses formula:

$$\mathbf{x} = \frac{\Sigma x}{N}$$

$$\mathbf{y} = \frac{\Sigma y}{N}$$

Where:

Σx : total score of pre test

Σy : total score of post test

N : total number of respondent (students)

b. The mean of differential pre-test and post-test are calculated by the following formula:

$$\mathbf{D} \quad = \frac{\Sigma d}{N}$$

Where:

D : The mean of differential pre-test and post-test

Σd : Sum of different between pre-test and pos-test

N : total number of students.

c. To find out the standard deviation the researcher uses a formula:

$$SD = \sqrt{\frac{\not\sim D^2}{N} - D^2}$$

Where:

SD   : Standard Deviation

D   : Difference between pre test and post test

N   : The number of sample

d. The standard error of the means for the differences is calculated by the following formula:

$$S \times D = \frac{SD}{\sqrt{N-1}}$$

Where:

S xD   : Standard error of the means for the difference.

N   : The number of sample

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e. To find out the significance between x and y by calculate t hitung (uji-t), the researcher uses this formula, in order to analyze the effectiveness of the method used in the learning process, the formula is:

$$to = \frac{D}{SxD}$$

Where :

to   : T test

S xD   :Standard error of the means for the differences

To find out the precentage of data, the researcher uses precentage. The formula was described according to Haris in Djamruh, (2012:35) as follows:

$$p = \frac{f x 100\%}{n}$$

Where :

P : Precentage

F : Frequency of the counted value

N : Number of students

The researcher used t-test using statistical program to know the effectiveness and to get stronger conclusion. The t-test is taken from the students test result which is conducted before and after being treatment or taught dictogloss technique.

To examine the hypothesis by determine the significant differences between two variables with criteria:

a. Alternative hypothesis (Ha) t calculates t table if there is significant differences between pre test score and post test score.

b. Null hypothesis (Ho) t calculates t table if there is no significant differences between pre test score and post test score.