

CHAPTER III

RESEARCH METHOD

This chapter describes the research method. It consists of research design, population and sample, research variable, research instrument, validity and reliability testing, normality and homogeneity testing, data collection method, data analysis and hypothesis testing.

A. Research Design

This study used quantitative approach. Quantitative approach is used for analyzing the statistic data that is students' pre-test and post-test score. This study was conducted in *Quasi Experimental Design* with *Nonrandomized Control Group, Pretest-Posttest Design*. Using sample and assignment of the samples into experimental and control groups to ensure the equivalence of groups and to control for many interfering variables that might otherwise contaminate the result of investigation.

In this research, the researcher interested in investigating whether there is a significant improvement of students' listening ability after being taught by using Running Dictation. The researcher chose two classes which a class was an experimental class and another class was as control class. Then to know the effect of using Running Dictation, the researcher compared the score of experimental class which got treatment, to the control class which had no treatment.

Ary (2002: 315-316) explains that quasi experimental design are similar to randomized experimental design in that they involve manipulation of an independent variable but differ in that subjects are not randomly assigned. In other words, this design does not include random assignment and it is used where true experimental designs are not feasible. These design permits the researcher to reach reasonable conclusions even though full c control is not possible. The objective of this research design is to examine how significant of the cause and the effect from the research.

Table 3.1. Nonrandomized Control Group, Pretest-posttest Design

Group	Pretest	Independen Variable	Posttest
A	Y₁	X	Y₂
B	Y₃	-	Y₄

(Ary,2010:316)

Where :

A : experimental group

B : control group

Y₁ : pre-test for experimental group

Y₃ : pre-test for control group

X : represent the independent variable. It will also refer to ask the experimental variable or the treatment (Running Dictation)

Y₂ : post-test for experimental group

Y₄ : post-test for control group

B. The population, Sampling Technique and Sample

This sub-heading presents about population, sample, and sampling in this research;

1. Population

A population is defined as the whole subjects of the research. Setiyadi (2006:38) states research population is all individuals which are being target in research while research sample is individual who give the data. The population of this research was the eighth grade students of MTs Negeri 4 Tulungagung in the academic year 2017-2018.

Table 3.2. The Eighth Grade Students of MTs Negeri 4 Tulungagung in the Academic year 2017/2018

No	Class	Male	Female	Total
1	VIII A	10	24	34
2	VIII B	11	21	32
3	VIII C	14	25	39
4	VIII D	14	25	39
5	VIII E	18	22	40
6	VIII F	21	19	40
7	VIII G	20	20	40
8	VIII H	20	20	40
9	VIII I	16	23	39
	Total			343

2. Sampling Technique

Sampling is as a way the researcher select number of individuals as a sample which represents the population. Sampling is the process of selecting a number of individuals for a study in such as a way that the individuals represent the large group from which they were selected. According Arikunto, there was eight sampling techniques. They was simple random sampling, stratified sampling, probability sampling, proportional sampling, purposive sampling, quota sampling, cluster sampling and double sampling.

In this research, the researcher used Purposive Sampling Technique to obtain the sample. According Arikunto (2000 :139) explain that :

Purposive sampling is sampling technique which researchers do not consider strata, random or area when they handpick a subject. However, they consider the certain purpose. In addition, this technique is done because there are some consideration such as the limitation of time, energy, and money.

The resecher used purposive sampling because the researcher found some characteristics of the sample. They were good attitude, active in the class, and almost had the same average in medium ability. The classroom having those characteristic in VIII D class and VIII E class. It was proved by one of English Teacher said that VIII D class and VIII E class are quiet in the class and they always pay attention when the teacher explained the material.

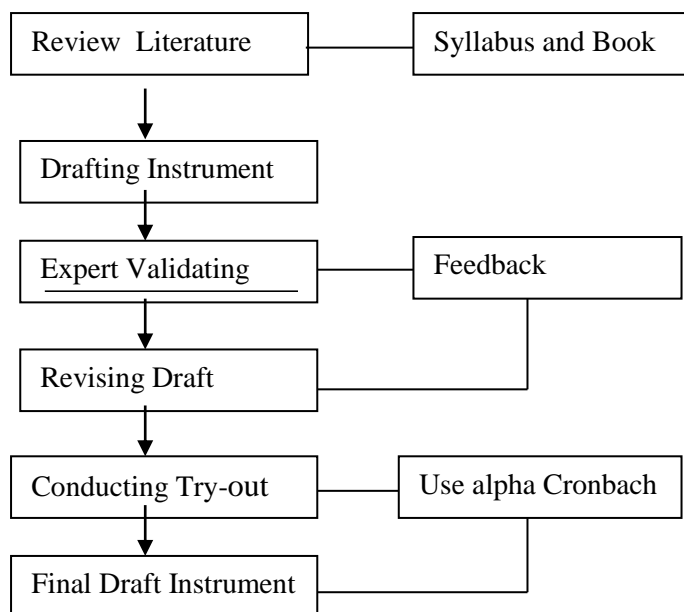
3. Sample

Selected of the sample is very important step in conducting a research study. According to Charles (1995:96), a sample is a small group of people selected to represent the much larger entire population from which it is drawn. It means that a good sample must be representative of the entire as possible, so that the generalization of the sample as true as population.

According the explanation above to take a sample the the reseacher will take two classes; they are VIII D class as an experimental class which consist of 39 students, and VIII E class as a control class which consist 40 students. It was done with some consideration that both classes were the existing classes which almost had the same average in medium ability so it can represent the population on the average ability on listening.

C. Research Instrument

Instrument of research are the tools to measure something that we observe in order to obtain the data and answer the research problems, stated by Sugiyono (2011). The instrument used in this research is a test which it is given before and after taught by using Running Dictation strategy. The process of developing instrument was showed in below:



The figure above was elaborated as follows:

1. Review Literature

The first steps to get valid and reliable test was reviewing literature concerning with the recount text especially that in SMP/MTs. Therefore, the researcher reviewed some literatures from syllabus and book used in SMP/MTs to get some important informations as sources to drafting instrument that related with the materials of senior high school .

2. Drafting Instrument

After getting some informations from reviewing literature, the researcher started to draft instrument that appropriate with the materials of junior high school.

3. Expert Validating

After finishing the drafting instrument, the instrument was validated by the expert in listening test like English teacher or lecturer. The purpose of the expert validating is to know the validity of instrument in term of construct validity, face validity, or content validity. So, in this steps the researcher got feedback and validation guide.

4. Revising Draft

In revising draft of the instrument, the researcher used feedback gotten from the expert validation.

5. Conducting Try- Out

After revising the draft of the instrument, the researcher conducted try out of the instrument to the eighth grade students of MTsN 4 Tulungagung who share common characteristics with the subjects of this research that was VIII –I class. The result of try out which was analyzed using alpha cronbach was used to revise the draft to make it more valid because the reliability and validity of the instrument can be objectively computed by using the formula of alpha cronbach.

6. Final Draft Instrument

The last step was final instrument means that the instrument was good and appropriate.

In this research, the researcher conducted two tests. They were pre test and post test. Pre test was administered to know the students' listening ability before being given a treatments. Post test was administered to know the students' listening ability after being given a treatments. The test format to be tried out of pre test and post test: close test and multiple-choice test. The total number of the try out items was 20 items. The try out test was administered for about 40 minutes and each pretest and post test were also administered for about 40 minutes.

D. Data Collecting Techniques

In collecting the data pre test, treatments and post test were administered as follow.

1. Pre Test

The pre test was conducted in order to know the students' listening ability before being given the treatments. The type of the test was close test and multiple –choice test. The items of close test consisted of 10 numbers. The items of multiple choice consisted of four options (a,b,c, d) and the total items number was 10. In this pre test, the students were given 20 items of listening and it was conducted within 40 minutes.

2. Post Test

After conducting the treatments, the researcher administered the post test. The aim of this test was to know the effect of the treatments towards the students' listening ability after being given the

treatment. This test consisted of 20 items of close test and multiple choice test for about 40 minutes.

The schedule of collecting the data could be seen in the following table.

Table 3.3. The Schedule of Conducting the Research

No	Group	Class	Date	Activity	Period
1.	Control	VIII E	Tuesday, March 6 th 2018	Pre test and explaining about recount text	1-2
2.	Experiment	VIII D	Thursday, March 8 th 2018	Pre test, explaining about recount text and treatment 1 (Running dictation)	1-2
3.	Control	VIII E	Thursday, March 8 th 2018	Teaching recount text (the language features)	7-8
4.	Experiment	VIII D	Saturday, March 10 th 2018	Treatment 2 (Running Dictation)	1-2
5.	Control	VIII E	Tuesday, March 13 rd 2018	Teaching recount text (simple past)	1-2
6	Experiment	VIII D	Thursday, March 15 th 2018	Treatment 3 (Runn-ing Dictation)	1-2
7.	Control	VIII E	Thurday, March 15 th 2018	Teaching and post test	7-8
8.	Experiment	VIII D	Saturday, March 17 th 2018	Treatment 4 (Runn-ing Dictation and post test)	1-2

E. Data Analysis

The data obtained in this research were the results of students test and then were analyzed quantitatively. Quantitative analysis was done

using statistics which is called statistical analysis or inferential statistics. The quantitative data of this research was analyzed by using statistical computation. This technique was used to find the significant difference on the students' listening ability after being taught by using Running Dictation strategy. The researcher used T-test adopted from Ary (2010:177) with SPSS 16,0 version. After getting the data either from pretest or posttest, the researcher analyzed the data by using formula of f-test to testing the equal variance of standard deviation and t-test by to know the significant difference of students' listening ability between students who are taught without by using Running Dictation Strategy and students who are taught by Running Dictation.

F. Validity and Reliability

1. Validity

Generally, the validity of a test shows how far the test measures what supposed to be measured (Setiyadi, 2006). To measure whether the test have a good validity or not, the researcher saw them from the content validity, face validity, and construct validity.

a. Content validity

Content validity is extended to which a test measures representative sample of the subject matter contents. The focus of the content validity is adequacy of the sample and simply on the appearance of the test (Hatch and Farhady, 1982: 251). In the

content validity, the materials given are appropriate with the curriculum. The researcher arranged the test based on the material that has had been taught to the student. It is based on K13 of English for Junior High School.

Table 3.4. Content Validity

Basic competence	3.11. Membandingkan fungsi sosial teks, dan unsur kebahasaan beberapa teks personal recount lisan dan tulis dengan memberi dan meminta informasi terkait pengalaman pribadi di waktu lampau, pendek dan sederhana, sesuai dengan konteks penggunaanya
Indicators	<ol style="list-style-type: none"> 1. The students are able to differentiate the pronunciation of simple past 2. The students are able to write the certain noun based on the audio 3. The students are able to listening to texts and finding certain information
Testing format	Close test and multiple choice
Instrument of test	<p><i>A. Listen carefully, then fill in the blanks with the words in text you will hear!</i></p> <p><i>A. Listen and choose the correct answer by crossing (x) a, b, c, or d based on the text in the audio!</i></p>
Time alocation	40 minutes

The Table 3.4 showed that the instrument of the test was valid based on the standard competence, basic competence, and indicator which mentioned in Syllabus.

b. Face Validity

Face validity if it looks as it measures what it is supposed measure. For example, a test which pretended to measure pronunciation ability but, which did not require the test-takers to speak might be through to lack face validity. This is true even if the test is constructing and criterion-related validity can be demonstrated. Face validity is hardly a scientific concept, yet it is very important. A test which does not have face validity may not be acceptable by test-takers, teachers, education authorities, and employers. The researcher used face validity by consulting with the advisor and teacher.

c. Construct validity

The construct validity of test which is capable of measuring certain spesific characteristic in accordance with a theory of language behavior and learning. Based on the theory above, in the test the researcher asked the students to answer the multiple choices based on recount text to measure the student's listening ability and this is fulfill the construct of listening test therefore, valid in term of construct validity.

The validity and reliability of the test can be measured by SPSS Alpha Cronbach. If the result shows $\alpha > 0,05$ means that the reliability is sufficient, while if the $\alpha > 0,0$ means that all of items are consistent and reliable. Besides, the researcher tried to check the empirical validity by using SPSS 16.0 after tried out the instrument (post-test). In this research, the researcher used SPSS 16.0 for windows to know the validity of test instruments. It can use corrected item-total correlation formulation. If r_{table} is greater than r_{count} ($r_{table} > r_{count}$) then our conclusion statement is not valid, but if the value of r_{tables} is smaller than r_{count} ($r_{tables} < r_{count}$) in SPSS then the conclusion is valid.

Table 3.5 The Result of Validity

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
soal_1	126.93	216.547	.575	.777
soal_2	126.73	209.237	.518	.757
soal_3	127.33	222.023	.569	.791
soa_4	127.03	219.964	.622	.886
soal_5	126.73	215.030	.614	.773
soal_6	126.93	190.064	.474	.797
soal_7	126.63	198.309	.785	.824
soal_8	126.63	221.689	.665	.790
soal_9	126.43	213.633	.781	.768
soal_10	126.93	223.995	.708	.796
soal_11	124.10	179.610	.540	.877
soal_12	123.93	180.478	.445	.788
soal_13	123.77	214.461	.607	.782

soal_14	123.77	188.185	.542	.802
soal_15	123.60	212.179	.674	.877
soal_16	123.63	208.033	.704	.764
soal_17	123.90	204.921	.546	.756
soal_18	124.03	193.689	.617	.724
soal_19	123.37	198.033	.706	.729
soal_20	123.90	186.783	.592	.806

Based on Table 3.5 above, the correlation value of each item with total score showed greater than the minimum standard criterion validity test is 0.349, so it could be concluded that the whole item is valid. For the result of validity can be seen in Appendix 7.

In this test the researcher give close test and multiple-choice test to measure students' listening ability. The researcher made this test based on the course objectives in the syllabus of eighth grade of MTsN 4 Tulungagung.

2. Reliability

Reliability is simple a consistency of a test. In other words, how far it can measure the same subject at separated time, but it shows the same result relatively (Setiyadi, 2006: 113). Reliability of a test can be defined as the extent to which a test produces consistent results when administer under similar conditions (Hatch and Farhady, 1982: 243). In order to estimate the reliability of the test, this research used split-half technique and to measure the coefficient of the reliability between odd and even group. This research used "Levene Statistic".

The criteria of reliability

According to Arikunto (2002: 245), reliability of the test distribution can be categorized into 5 classes as follows.

1. If the Cronbach's Alpha score 0.800 – 1.000 : very reliable
2. If the Cronbach's Alpha score 0.600 – 0.799 : reliable
3. If the Cronbach's Alpha score 0.400 – 0.599 : enough
4. If the Cronbach's Alpha score 0.200 – 0.399 : rather
5. If the Cronbach's Alpha score 0.000 – 0.179 : less

The result of reliability testing by using SPSS 16.0 can be seen from Table 3.6 below:

Table 3.6 The Result of Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
.773	21

To know the items was reliable or not it could be seen from Alpha Cronbach's column. The Alpha Cronbach's score = 0,773 means that it was reliable, because the score was between 0,600- 0,799. The result of reliability students' tryout posttest can be seen in Appendix 7.

G. Normality and Homogeneity Testing

1. Normality Testing

Normality testing is conducted to determine whether the gotten data is normal distribution or not. The computation of normality testing in this research using SPSS.16. *One- Sample Kolmogorov-Smirnov test* by the value of significance (α) = 0.05 rules as follow:

- a. H_0 : If the value of significance > 0.05 , means data is normal distribution
- b. H_a : If the value of significance < 0.05 , means the distribution data is not normal distribution.

In this research, normality testing was done toward the students' score in pretest and posttest, not only for control group but also for experimental group. The criteria for the hypothesis are: H_0 is accepted if significant value exceed level of significance at 0.05 (Sig. $> \alpha$). Meanwhile, H_0 is rejected if significant value does not exceed level of significance at 0.05.

Table 3.7. Normality Testing Summary of Data Distribution

No	Data	Asym.Sig (2-tailed)	Description
1	Pretest Control Group	0,222	Asymp. Sig (2-tailed) $> 0,05$ so test distribution is normal
2	Posttest Control Group	0,763	Asymp. Sig (2-tailed) $> 0,05$ so test distribution is normal
3	Pretest Experimental Group	0,578	Asymp. Sig (2-tailed) $> 0,05$ so test distribution is normal
4	Posttest Experimental Group	0,151	Asymp. Sig (2-tailed) $> 0,05$ so test distribution is normal

Based on the result of computation by using SPSS program 16.0 version, it can be concluded that the test distribution was normal (See Appendix 8). Therefore, the data were qualified to be analyzed.

2. Homogeneity Testing

Homogeneity testing is conducted to know whether the gotten data has a homogeneous variance or not. The computation of homogeneity testing using SPSS Statistics 16 is *Test of Homogeneity of Variances* by the value of significance (α) = 0.05. Before doing homogeneity testing, the researcher decides hypothesis in this homogeneity as follow:

- a. H_0 : If the value of significance > 0.05 , means data is homogeny
- b. H_a : If the value of significance < 0.05 , means data is not homogeny

Table 3.8. Homogeneity Testing of Variances

Data	P	Description
Pretest	0,073	Sig. 0,873>0,05, so the variances were homogenous
Posttest	0,085	Sig. 0,085>0,05, so the variances were homogenous

From the result above, the homogeneity testing of variance in pretest of control group and experimental group for listening in this research showed that the data had homogeneous variance, so it is qualified to be analyzed (see Appendix 9).

H. Hypothesis Testing

In conducted the analysis of found data, the researcher shown two kinds of hypothesis in this research. The first kind of hypothesis was used to testing the equal variance of standard deviation by using f-test. While, the second kind of hypothesis was used to know whether there was a significant different ability between the students taught without using Running Dictation and those taught by using Running Dictation.

The hypothesis which become basic decision in determining the equality of standard deviation of f-test were as follows:

1. $H_0 : \sigma_1^2 = \sigma_2^2$

There was no significant difference of variability (standard deviation) between the listening ability of the eighth grade taught without using Running Dictation and the one of those taught by using Running Dictation.

2. $H_a : \sigma_1^2 \neq \sigma_2^2$

There was significant difference of variability (standard deviation) between the listening ability of the eighth grade taught without using Running Dictation and the one of those taught by using Running Dictation. .

On the other hand, hypothesis which was examined in this research as follow:

1. $H_0 : \mu_1 = \mu_2$ (The null hypothesis)

There was no significant difference score in listening ability of the eighth grade taught without using Running Dictation and those taught by using Running Dictation.

2. $H_a : \mu_1 \neq \mu_2$

There was significant difference score in listening ability of the eighth grade taught without using Running Dictation and those taught by using Running Dictation.