

CHAPTER III

RESEARCH METHOD

This chapter, presents the result of reviewing of some literatures related to the topic of the study, convening research design, population, variable, population, sample, sampling, data source, instrument and method of collecting data, Validity and Reability, data analysis, and hypothesis testing.

A. Research design

This research used Quasi experimental design to find out the effectiveness of using Guided Dialogue Through Describing Picture toward students' speaking ability. Quasi Experimental Research is defined as “ experimental design which is conducted as if it is look like the real situation” (Yunus, 2010:335). Meanwhile, Ary (2010: 640) states that Quasi-Experimental is in which the ivestigator can control the treatment and the measurement of the dependent variable but cannot control assigment of the subjects to treatment.

In this experimental design, the researcher used quantitative approach with Two-Group Pretest-Posttest design. Finally, the researcher compared the scores of experimental group with the control one. The research design in this research was presented in the figure below :

Figure 3.1 a diagram of two-group Pretest-posttest design:

Group	Pre-Test	Treatment	Post-Test
Experimental	Xc1	T	Xc2
Control	Xc1	0	Xc2

Xc1 : Students' speaking score of experimental class on Pre- Test

Xc1 : Students' speaking score of controlled class on Pre- Test

T : Guided Dialogue through describing picture treatment

0 : Non Guided Dialogue through describing picture

Xc2 : Students' speaking score of experimental class on Post- Test

Xc2 : Students' speaking score of controlled class on Post- Test

The figure showed that the two classes were given a pre –test and post-test, but the differences was in giving a tretment. The experimental class was Taught by employing Guided Dialogue through describing picture as a treatment in teaching speaking ability, but the controlled class was taught by employing a conventional way. Afterwards, a post- test was administered in order to investigate the result of the given treatment and controlled.

B. Population, Sampling, and Sample

Population is defined as overall object of research target (Kasiram, 2010: 257). The population of this research was all of the second grade students at Islamic Junior High School Durenan – Trenggalek consisted of 6 classes. Each class consisted of 25 until 32 students. The total population was 146 students.

Since the population was too large, so the researcher needed a sample. Sample is a portion of a population. The sample of this research was the students of second semester at D classes and E classes.

In a research, there were two types of sampling, probability sampling and non- probability sampling. Non probability sampling is also called non- random sampling. Non- random sampling a sampling technique used when it cannot be ensured at each item has an equal chance of being selected. There are three types of non-random sampling; convenience sampling above, quota sampling, and purposive sampling. Based on the three sampling, this study used purposive sampling. According to Arikunto (2010:183) purposive sampling is the process of selecting sample by taking subject that is not based on the level area, but it is taken based on the specific purpose. The researcher took two classes of the students' eighth grade at Islamic Junior High School One Durenan, they were D classes and E class consisted of 29 students and E class consisted of 29 students. These two classes were selected as the sample because students of the eighth grade had average proficiency in studying English.

C. Variable

Variable is a construct or characteristic that can take on different values or scores (Ary, 2002 : 37). Variable can be defined as any aspect of a theory that can vary or change as part of interaction within the theory. In other words, variable is anything can effect or change the result of a study. In this research the researcher used two variables, they were dependent variable and independent variable.

a. Independent variable

The independent variable is the variable that refers to how participants are treated. In this study the independent variable. This was Guided Dialogue Through Describing Picture Technique.

b. Dependent variable

The dependent variable is variable which is observed and measured to determine the effect of the independent variable. In this study, the dependent variable was students' ability in speaking.

D. Data and Data Source

The term data is defined as recorded factual material commonly retained by and accepted in the scientific community as necessary to validate research findings. In other words, data is an information in raw or unorganized form (such as alphabets, numbers, or symbols) that refer to or represent conditions, ideas, or object. Whereas, data source is subject where the data are acquired or collected. The data in this research were

quantitative data. In this study the data was students' score of the second graders students at Islamic Junior High School One Durenan from speaking ability (pre-test and pos-test).

E. Formulation of Hypothesis

According to Ary (260:643) hypothesis is a tentative proposition suggested as a solution to a problem; a statement of the researcher's expectations about the relationship among the variables of the study. In this study, there were two kinds of hypothesis :

a. Null Hypothesis (Ho)

There is no significant difference score on speaking between the classes who are taught and without by using Guided Dialogue Through Describing Picture At Islamic Junior High School One Durenan intend academic years 2017/2018.

a. Alternative Hypothesis

There is significant difference score on speaking between the classes who are taught and without by using Guided Dialogue Through Describing Picture At Islamic Junior High School One Durenan intend academic years 2017/2018.

F. Research Instrument

Method of collecting data refers to how the way the researcher collect the data. In this study, the researcher used achievement test as the instrument. This kind of test was used to measure the students' speaking ability by using Guided Dialogue Through Describing Picture.

Test is a series question, exercise or other means which are used to measure the skill, knowledge, intelligent, ability or talent that have by individual or group, (Arikunto, 2006:150). In this research, there were two kind of test administered, were post-test.

a. Post- test

After the treatment, the researcher conducted the post-test in order to know or to measure the students' speaking ability after being given the treatment. Post- test was administered to know whether there is significant difference score in speaking of the students taught by using and without using Guided Dialogue Through Describing Picture. In the of post-test the students was asked to to speak through dialogue in front of the class. Time allocation time of the test is 80 minutes.

G. Validity and Reliability Testing

Validity and reliability testing are important requirements of a good test part since the test is used as an instrument to collect the data. The validity and reliability were used to ensure that the test was suitable to use.

1. Validity

The most complex criterion of an effective test and the most important principle of language testing is validity. According to Ary (2010: 225) validity is the most important consideration in developing and evaluating measuring instruments. Validity was defined as the extent to which an istrument measure what it clames to measure. The

focus of recent views of validity is not on the instrument itself but on the interpretation and meaning of the scores derived from the instrument. In this research, the researcher used some validity testing as follows:

a. Content Validity

Content Validity is a test where the test can measure a certain objectives that appropriate with the material or the content of learning that is given (Arianto, 1996 : 82). It means that the content of test must appropriate with the material that exist in the curriculum. Moreover, the instrument in this research fulfilled the requirement of having content validity since the test was designed based on the standard and basic competence in KTSP.

Table 3.2 Standard Competence and Basic Competence in K13 Curriculum

Standard Competence	Basic Competence
10. Mengungkapkan makna dalam teks lisan fungsional dan monolog pendek sangat sederhana berbentuk <i>descriptive</i> dan <i>procedure</i> untuk berinteraksi dengan	10.2. Mengungkapkan makna dalam monolog pendek sangat sederhana dengan menggunakan ragam bahasa lisan secara akurat, lancar dan berterima untuk

lingkungan terdekat	berinteraksi dengan lingkungan terdekat dalam teks berbentuk <i>descriptive</i> dan <i>procedure</i> .
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Based on the matrix above, it can be seen that descriptive text was one of the text that must be mastered by the eighth grades students of Islamic Junior High School in KTSP curriculum. So, the content of the test in this study used descriptive text, since it was suitable for eighth grades.

a. Construct Validity

A test is said to have construct validity if every question in the test measures every thinking aspect (Ariakunto, 1996 : 83). Construct validity deals with the relationship between a test and a particular view of language and language learning. The word construct refers to any underlying ability which is hypothesized in a theory of language ability. So, this construct validity refers to the theory of language learning. Here, the researcher used construct validity in administering speaking test and the technique of scoring students' speaking ability based on five aspect of speaking describing picture, they were: content, grammar, pronunciation, vocabulary, and fluency.

Table 3.3 The Weighting Table Of Proficiency Description.

Categories	Need Improvements (15)	Satisfactory (20)	Good (25)	Excellent (35)
Content	Many problem was known and the message can not be understandable.	Difficulties to get ideas, the message need to be guessed from other sources but not actual production.	Not many difficulties to get the ideas and most of the understandable.	Easy to get ideas from the connector used, the speaker gives alternative option to be understood and the message is completely understandable
Categories	Need Improvements (10)	Satisfactory (15)	Good (20)	Excellent (25)
Vocabulary	Students had inadequate vocabulary words to express his/her	Students was able to use vocabulary words but was lacking, making him/her repetitive	Students utilized the words learned in class, in accurate manner for the situation given.	Rich, precise and impressive usage of vocabulary words learned in and beyond of

	ideas properly, which hindered the students in responding.	and cannot expand on his/her ideas.		class.
Categories	Need Improvements (5)	Satisfactory (10)	Good (15)	Excellent (20)
Grammar	Students was difficult to understand and had a hard time to communicating their ideas and responses because of grammar mistakes.	Students was able to express their ideas and responses adequately but they often displayed inconsistencies with their sentences structure and tenses.	Students was able to express their ideas and responses fairly but they makes mistake with their tenses,	Students was able to express their ideas and responses with case in the proper sentence structure and tenses.
Categories	Need Improvements (5)	Satisfactory (9)	Good (12)	Excellent (15)
Pronounciat	Students was	Students was	Pronunciation	Pronunciation

ion	difficult to understand, quite in speaking unclear in pronunciation.	unclear with pronunciation and the pronunciation generally is fair.	was good but did not interfere with communication.	was very clear and easy to understand
Categories	Need Improvements (2)	Satisfactory (3)	Good (4)	Excellent (5)
Fluency	Speech is very slow, stumbling, nervous, and uncertain with response, except for short or memorized expression. Difficult for a listener to understand.	Speech is slow and often hesitant and irregular. Sentences maybe left uncompleted, but the student is able to continou.	Speech is mostly smooth but some hesitation on rephrasing and groping for words.	Speech is effortless a smooth with speed at fluency.

From the table above, the researcher made a rating scale to classify the result of score that each students got. The rating scale was consisted of range of score, grade, and criteria. It can be seen below :

Table. 3.4 Rating Scale

No	Range Of Score	Grade	Criteria
1.	91-100	A	Excellent
2.	80-90	B	Good
3.	70-79	C	Fair
4.	60-69	D	Poor
5.	Lebih dari 59	E	Very Poor

b. Reliability

Reliability is the degree to which one may expect to find the same result if a measurement is repeated. Its means that a test has high reliability if it give the same result, when it is tried out many time on sample.

The computation of this realibility used *IBM SPSS Statistics 16* with *reliability analysis*. The criteria of reliability's degree can be seen on Table below, whereas the reliability's result can be seen on appendix.

According to triton in Sujianto (2009) the value of cronbach's alpha can be interpreted as follow:

Table 3.5 corobach's alpha interpretation based on triton

Corobach's alpha	Interpretation
0.00 -0,20	Less reliable
0,21-0,40	Rather reliable
0,41-0,60	Quite reliable
0,61-0,80	Reliable
0,81-1,00	Very reliable

Table 3.6 Reability Testing

Reliability Statistics

Cronbach's Alpha	N of Items
.945	29

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
A	1776.25	11360.917	.867	.943
B	1776.25	11334.250	.908	.942
C	1769.25	11518.250	.463	.945
D	1774.00	11415.333	.372	.946
E	1775.75	11034.250	.765	.942
F	1769.00	10804.667	.806	.941
G	1767.25	10773.583	.494	.947
H	1774.00	11142.000	.772	.942
I	1772.00	11381.333	.576	.944
J	1775.75	11158.250	.932	.941
K	1775.75	11346.250	.773	.943
L	1767.00	10935.333	.424	.948
M	1772.00	11744.667	.037	.955
N	1772.00	10836.667	.788	.941
O	1769.25	11338.917	.657	.943
P	1764.00	11544.667	.355	.945
Q	1766.25	10655.583	.690	.943
R	1773.00	10922.000	.835	.941
S	1773.25	11286.250	.821	.942
T	1770.00	10693.333	.756	.941
U	1773.75	11780.250	.128	.947
V	1774.00	11031.333	.747	.942
W	1771.50	10868.333	.934	.940
X	1767.00	11583.333	.976	.944
Y	1775.25	11227.583	.975	.942
Z	1766.00	11176.667	.994	.941
AB	1772.50	11057.667	.949	.941
CD	1770.00	10930.000	.770	.942
EF	1771.00	10674.667	.700	.942

From the correlation analyze, the researcher got the correlation of two score. The value of correlation is 0.945 I means that the correlation of score 1 and score 2 is strong, because the value is between 0.81-1.000. So, the correlation mean is strong, significant and two tailed. From the above evidence, it was found that this test very reliable. The raw score can be seen at the appendix.

H. Normality and Homogeneity Testing

1. Normality Testing

Normality Testing is conducted to know whether the gotten data is normal or not. The compulation of normality testing in this research usin *IBM SPSS Statistics 16 is One-Sample Kolmogorov-Smirnov test*

by the value of significance (α) = 0.050. Testing of data normality is conducted by the rules as follows :

- If the value of significance $>$ 0.050 so the distribution data is normal.
- If the value of significance $<$ 0.050 so the distribution data is not normal.

If the distribution data is normal, so next to homogeneity testing.

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
WITHOUT	.110	58	.080	.951	58	.021
B	.339	58	.000	.637	58	.000

a. Lilliefors Significance Correction

From the data above based on Kolmogorov-Smirnov shown that the value of significance is 0.080 so the distribution data is normal.

2. Homogeneity Testing

Homogeneity Testing is conducted to know whether the gotten data has a homogeneous variance or not. The computation of homogeneity testing by using *IBM SPSS Statistics 16* is *Test of Homogeneity of Variance* by the value of significance = 0.050. before doing homogeneity testing, the researcher decides hypothesis in this homogeneity as follows :

Ho : Both variances (before and after given the treatment) are same.

Ha : Both variances (before and after given the treatment) are different.

There is also certainly in taking decision of homogeneity testing,as follow:

The value of significance > 0.050 , so H0 is rejected, its mean that the data of the populations that have different variance.

Test of Homogeneity of Variances

WITHOUT			
Levene Statistic	df1	df2	Sig.
.068	1	56	.795

From the data above based on homogeneity testing by using *IBM SPSS Statistics 16* is *Test of Homogeneity of Variance* The value of significance 0.795 Its mean the value of significance is > 0.050 , so H0 is rejected, its mean that the data of the populations that have different variance.

I. Technique of data analysis

The data were gotten from post-test control and post-test experiment. Then, the researcher computed the difference between the mean of post-test control and post-test experimental because the researcher want to know whether there was significant difference of students score in speaking ability between the students score taught and taught without by using guided dialogue through describing picture.

After that, the researcher analyzed the normality of pre-test and post-test from experimental group and control group. Normality testing is conducted to know whether the gotten data is normal or not. The computation of normality testing in this research used *IBM SPSS Statistics 16* is *one- Sample Kolmogorov Smirnov test* by the value of significance (α) = 0.050. Testing of data normality is conducted by the rules as follow :

- If the value of significance >0.050 so the distribution is normal.
- If the value of significance <0.050 so the distribution is not normal. If the distribution data is normal,so next to homogeneity testing.

Homogeneity testing is conducted to know whwther the gotten data has a homogeneous variance or not. The computation of homogeneity testing by using *IBM SPSS Statistics 16* is *Test of Homogeneity Variance* by the value of significance = 0.050. Before doing homogeneity testing, the researcher decided hypothesis in this homogeneity as follow:

H₀: Both variances (taught and taught without given treatment) are same.

H_a: Both variances (taught and taught without given treatment) are different.

There is also certainty in taking decision of homogeneity testing, as follow:

The value of significance >0.050 , so H_0 is rejected, it means that the data is the populations that have different variance.

If the data gotten was normal and homogeneous, the next, testing hypothesis by using *IBM SPSS Statistics 16* is *independent sample t-test* for gain scores. Gain scores was the result of post-test minus pre-test and then it was counted by using *IBM SPSS Statistics 16* is *independent sample t-test* for gain scores. In this research, hypothesis testing was used to know whether there are difference between teaching speaking using guided dialogue through describing picture and conventional teaching towards material of speaking ability.

Interpretation of the result of *independent sample t-test* on gained scores of the sample are as follows:

- If the value of significance <0.050 and $t_{count} > t_{table}$. It means that there is difference between use guided dialogue through describing picture and do not use guided dialogue through describing picture towards students' ability in speaking.
- If the value of significance >0.050 and $t_{count} < t_{table}$. It means that there is no difference between use guided dialogue through describing picture and do not use guided dialogue through describing picture towards students' ability in speaking.

If the gotten data was not normal and homogeneous, so testing hypothesis by non parametric statistics, like *Mann-Whitney* testing. This testing was strongest test than another nonparametric test. The

test was other alternative for T-test parametric if the researcher want to avoid the opinion of T-test which the measuring in the research is more weak than interval scale.

Interpretation of the result of *Mann-Whitney* testing on *gain scores* of sample are as follows:

- If the value of significance < 0.050 . Its mean that there are difference between *gain score* of the students that are taught by using guided dialogue through describing picture and whose not in speaking.
- If the value of significance > 0.050 . Its mean that there are no difference between *gain score* of the students that are taught by using guided dialogue through describing picture and whose not in speaking.

Table 3.6 Validity Testing

Case Processing Summary

		N	%
Cases	Valid	4	12.1
	Excluded ^a	29	87.9
	Total	33	100.0