

CHAPTER III

RESEARCH METHOD

This chapter presents the research method. It focused the method used in conducting this research which covers research design, research variable, population, sample, and sampling technique, research instrument, validity and reliability testing, normality, homogeneity, and equality testing, procedure of using Google Docs, treatment, and data analysis.

A. RESEARCH DESIGN

This research was quasi experimental method which using comparison of control and experimental groups to investigate research question. This research aimed to know the effectiveness of Google Docs for writing skill on recount text.

The quasy experimental design according to Creswell (2008) can be presented as follows :

Table 3.1 Research Design

Group	Pretest	Independent Variable	Post Test
E	Y ₁	X	Y ₂
C	Y ₁	-	Y ₂

Note :

E : Experimental group

C : Control group

Y₁ : Pre-test for experimental and control group

X : Treatment by using Google Docs for experimental group

Y₂ : Post-test for experimental and control group

Based on the table above, the writer took two classes, the experimental class and control class. Before giving treatment, the writer taught the students in experimental class by using Google Docs. While, in controlled class the writer taught the students without Google Docs and used group investigation. In the fourth meeting the writer gave the post test to both of classes. It was given to know the effectiveness of Google Docs method towards students' writing achievement on recount text.

B. RESEARCH VARIABLE

Based on Ary (2010 : 37), variable is a construct or a characteristic that can take on different values or score. According to Creswell (2008 : 112), a variable is characteristic or attribute of an individual or an organization that (a) a researcher can measure or observe and (b) varies among individuals or organization studied. There were two variable which are used by researcher in this research :

1. Independent Variable

An independent variable is an attribute or characteristics that influences or affects an outcome or dependent variable (Creswee, 116). In this research, an independent variable is Google Docs.

2. Dependent Variable

According to Creswell (2008 : 115), a dependent variable is an attribute or characteristics that is dependent on or influenced by independent variable. In this research, a dependent variable is writing achievement.

C. POPULATION, SAMPLE, AND SAMPLING TECHNIQUE

1. Population

According to Ary (2010 : 148), population is defined as all members of any well-defined class of people, events, or objects. And it is the larger group about what which the generalization is made. According to Creswell (2008 : 142), population is a group of individuals who have the same characteristic. In this research, the population was the students of second grade at SMPN 1 Suruh Trenggalek.

2. Sample

According to Ary (2010 : 148), a sample is a portion of population. It is smaller than population. According to Creswell (2008 : 142), a sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population. In this research, the researcher choose class VIII A and VIIC.

3. Sampling Technique

Sampling technique was technique that used to determine the sample. In this research, researcher used purposive sampling that includes as non-probability sampling. According to Creswell (2012:

145), in non-probability sampling, the researcher selects individuals because they are available, convenient, and represent some characteristic the investigator seeks to study. The researcher chose the samples because they were have same in writing ability.

D. RESEARCH INSTRUMENT

Instrument has important part in research because instrument to collect the data. In this research, the researcher uses test. According to Ary (2010: 201) tests are valuable measuring instrument for educational research. A 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. This test was used by researcher to measure the the effect of Google Docs for writing skill on recount text.

The data were in the form of students' achievement on writing tests. The test was used in this research to measure students's achievement in writing recount text. In this research, there are two kinds of tests that should be done by the researcher, they are :

1. Pre-test

The pre-test was used students' achievement in writing recount text before treatment was given. In pre-test the students were asked to make recount text in 40 minutes by choosing one of two topics. The topics were terrific experience and experience in holiday that consist of 100 words. In pre-test, the researcher also enclose the explanation about generic structures and language features of recount text.

2. Post Test

In post test the students writing recount text also after was given treatment. In post test the students were asked to make simple recount text in 40 minutes by choosing one of two topics. The topics were embarrassing experience and happy experience. It was consist of more than 100 words. In post test, the researcher also included the explanation about generic structures and language features of recount text. In control and experimental classes, the post test was conducted in Google Form.

E. VALIDITY AND RELIABILITY TESTING

Validity and reability are very important of instrument because both of them are part in conducting a research since the instrument which will be used must be valid and reliable before the researcher collecting the data.

1. Validity

In this research, the researcher used instrument test to collect the data. Before conducting the research, the researcher ascertained that instrument had three kind of validity. They were construct validity, content validity, and face validity.

b. Construct Validity

Construct validity is ability to measure how far the test items are relevant with theory of language behaviour and learning. In this research, the researcher tested the students' writing achievement by writing recount text. Based on Brown (2003 : 4), assessment is an angoing process that encompasses a much wider domain. To do an

assess, a teacher have to consider some aspects in determining the score of the students. In this research, the researcher use scoring rubric to assess the students writing achievement based on five aspect of writing such as content, organization, mechanic, grammar, and vocabulary. The detail of scoring rubric could be seen in appendix 4.

c. Content Validity

According to Creswell (2008 : 618), content validity is the extend to which the questions on the instrument and the score from these questions are representative of all the possible questions that could be asked about the content or skill. It means that in content validity, the test must be appropriate with the purpose of that test to measure writing ability in recount text. So, the test was designed based on the basic competence of the second grade students in Curriculum of 13. Basic Competence and indicator of the second grade students of Junior High School can be seen in table below :

**3.2 Basic Competence and indicator of the second grade
students of Junior High Scholl Curriculum of 13**

Basic Competence	Indicator
4.15 Arranging oral and written of recount texts, short and simple about activities, events, phenomenon with due regard to social functions, structures of text, linguistic elements in a context correctly.	1. The students are able to make simple text about the activities, events, and phenomenon by using the structure and the language features of recount text correctly.

d. **Face Validity**

Face validity means that students perceive the test to be valid (Brown, 2003 : 27). In this research, the researcher make a test then consulted and asked to the expert to give comment and suggestion for the test. There were some aspect that must be fulfilled in making a good test based on the validity.

- a. The instruction of the test must be clear. It means that, the students could understand about what they should do on the test.
- b. The time allocation must be enough for the students. it means that, the time that give for students in work the test was not too long and not too fast. In this research, the researcher gave fourty minutes for students in writing recount test.
- c. The difficulty level that present of the test must be suitable with their level.

2. Reliability

Reliability was aspect to measure how consistently of instrument test. Based on Brown (2003 : 20) reliability is consistent and dependable. It means that score from an instrument are stable and consistent. A test could be considered reliable if the test has a consistent result. The result of the score should be nearly the same when the researcher administer the test in different times.

In this research, to know reliability of the test, the researcher used inter-rater reliability. According to Creswell (2008 : 161), inter-rater reliability involves observations made by two or more individuals of an individual's or several individuals' behavior. It means that, there were two scorers in scoring a test. After that, the scores was calculated to see if the scores were similiar or different.

In the test, the researcher Cronbach's Alpha from SPSS 16.0 version for windows to analyze reliability of the test.

According to Uyanto (2009 : 275) the value of Cronbach's Alpha could be interpreted in the tabel 3.3 as follow :

Table 3.3 Cronbach's Alpha Interpretation

Coefficient Reliabilities	Interpretation
0.00-0.20	Very low
0.20-0.40	Low
0.40-0.60	Middle
0.60-0.80	High
0.80-1.00	Very high

The result of reliability testing was represented in the following table 3.4

Table 3.4 The Result of Reliability Testing

Reliability Statistics

Cronbach's Alpha	N of Items
.744	2

The result of reliability testing used inter-rater. It showed in table 3.4. From the table could be concluded that the test was reliable. It known from the result of reliability statistics the Cronbach's Alpha score 0.744. based on categories from reliability testing by Uyanto (2009) was categories into high.

F. NORMALITY, HOMOGENEITY, AND EQUALITY TESTING

1. Normality Testing

Normality testing was used to measure whether of post test was in normal or not. There were two ways that could be used to test normality of the data, Shapiro-Wilk and Kolmogorov-Smirnov. In this study, the researcher used Kolmogorov-Smirnov method because the sample of the data that taken by 52 students. According to Dahlan (2010), if the research sample are more than 50, the normality test uses Kolmogorov-Smirnov and while the reseach sample are less than 50, the normality test uses Shapiro-Wilk. Normality testing was taken from post test score of the control and experiment class that had already conducted by the researcher. The hypothesis of normality testing as follows :

- a. If the significance value > 0.05 , the data had normal distribution.
- b. If the significance value < 0.05 , did not have normal distribution.

The result of normality testing could be seen in the table below :

Table 3.5 Normality Testing of Post Test in Control and Experimental Class

Tests of Normality

Kelas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
score Experimental	.285	26	.000	.885	26	.007
Control	.242	26	.000	.931	26	.081

a. Lilliefors Significance

Correction

The normality testing in post test data used Kolmogorov-Smirnov because the samples were taken more than 50 students. Based on the table 3. Showed that the result of normality testing from data post test was not normally distributed. It could be seen in Kolomogorov-Smirnov column was found that the p -value (sig) in post test of experimental class was 0.000 and the p -value (sig) in post test of control class was 0.000. Both of them indicated that the result was less than significance level 0.05 ($0.000 < 0.05$). Based on the result, it could be concluded that the normality testing of data post test was not normally distributed.

2. Homogeneity Testing

Based on Arikunto (2010 : 98), homogeneity is a measurement which can be used to determine data variation. Homogeneity testing is used to know whether the data was gotten is homogeneous or not. In this research to

measure homogeneity testing, the researcher analyzed the sample by using SPSS version 16.0. Prasetyowati (2016 : 94) states that the considerations of testing homogeneity are :

- a. If the result is higher than significant level 0.05, the data is homogeneous.
- b. If the result is lower than 0.05, the data is not homogeneous.

The result of homogeneity testing could be seen in table below :

Table 3.6 The Result of Homogeneity Testing

Test of Homogeneity of Variances

Score

Levene Statistic	df1	df2	Sig.
.277	1	50	.601

From the table above, the result of homogeneity testing by using SPSS version 16.0 for windows is homogeneity. It showed that the level of significance of 0.601. It means that the significance was more than 0.05 ($0.601 > 0.05$). homogeneity testing of variance in post test of control and experimental class for writing recount text in this research showed that the data had homogeneous variance. So it was qualified to be analyzed.

3. Equality Testing

Equality testing was used to measure whether control and experimental classes had similarities in writing ability. In this research, to measure the equality testing the researcher used Mann Whitney U test because the data was not normally distributed. So, the first the reseacher calculated normality testing. The result of normality testing in pre-test can be seen in the following table :

Table 3.7 Normality Testing of Pre-test in Control and Experimental Class

Tests of Normality						
Kelas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
data_p Experiment	.193	26	.014	.932	26	.088
retest Control	.173	26	.043	.900	26	.016

a. Lilliefors Significance Correction

The normality testing in pre-test data used Kolmogorov-Smirnov because the samples were taken more than 50 students. Based on the 3. Showed that the result of normality testing from data pre-test was not normally distributed. It could be seen in Kolomogorov-Smirnov column was found that the *p*-value (sig) in pre-test of experimental class was 0.014 and the *p*-value (sig) in pre-test of contol class was 0.103. Both of them indicated that the result was less than significance level 0.05, experimental class ($0.014 < 0.05$) and control class ($0.043 < 0.05$). Beside that, from the data pre-test of control and experimental class showed that

both of two classes was equal because p -value was 1 ($0.67 > 0.05$). It means that, the writing achievement of control and experimental class were same or equal. So, to determine hypothesis testing could only be calculated by the post test data. It could be seen in the following table :

Table 3.8 The Result of Equality Testing

Test Statistics ^a	
	data_pretest
Mann-Whitney U	315.000
Wilcoxon W	666.000
Z	-.426
Asymp. Sig. (2-tailed)	.670

a. Grouping Variable: kelas

G. PROCEDURE OF USING GOOGLE DOCS ON COLLABORATIVE WRITING

In using Google Docs on Collaborative writing in experimental class, the researcher conducted based on procedure. The procedure of teaching followed Gerlack, at.al.(1890:273-274) with some modification involving :

- a. The researcher conveys about Simple Past Tense.
- b. The reseracher shows the example of recount text.
- c. The researcher ask the students to identify the generic structure and language feature of recount text.
- d. The reseracher explains more about the method.
- e. The researcher asks the students to make recount text using Google Docs on collaborative writing.

- f. The researcher review about the material.
- g. The researcher give the opportunity to ask about Google Docs.
- h. The researcher asks the students to make recount text and submit the assignment.

H. DATA COLLECTING METHOD

Based on Ardiyabi (2015 : 20), the purpose of data collection is to uncover the fact related to the variables. The data collecting method in this research used to twice test that are pre-test and post test . Pre-test was conducted before the treatment administered. The purpose of pre-test to know the basic quality of students' recount text writing achievement before receiving the treatment and to ensure that both of two classes had same in writing ability..

After conducting treatment, the researcher administered post test to know the ability in writing recount text after the students conducted collaborative writing by using Google Docs in experimental class and group investigation in control class. Thus conducted in different time because experimental class and control class had different schedule. The post test in control and experimental classes conducted through Google Form.

I. TREATMENT

In this research, the researcher gave the treatment for experimental class after giving pre-test for both of classes. The treatment was given twice in experimental classes. In experimental classes the treatment by using

Google Docs. Beside that, in control class there was no special treatment. It was treated without Google Docs but used group investigation.

For detail explanation treatment could be explained as follows :

1. Treatment in Control Class

- a. The First Treatment

The first treatment, the researcher conveys about Simple Past Tense and shows the example of recount text. Then, the researcher asked the student to identify the generic structure of recount text. Then, the researcher divided the class in 13 groups.

- b. The Second Treatment

In the second treatment the students were asked to make a simple recount text in their group that consist of two students based on the instruction and topic that given by researcher. The title is "Our Trip in Bromo Mountain. In the control class conducted writing recount text that consist of more than 100 words in the class by using group investigation. The reseacher helped the students how to make text become the perfect recount text.

Picture 3.1 Recount Text on Group Investigation Assisted Student Worksheet

No. _____
Date: _____

Group 6

Name : 1. Sherly Aprianti M.
2. Yuliana

Class : 8c

My Holiday in Gemah Beach

Two weeks ago I and my parent went to Gemah Beach. I often visited there because I could enjoy the scenery by driving motocross / ATV.

After arriving there, I rented motocross / ATV and drove it with my little brother. And my parent sat on the gazebo to wait us. After driving motocross / ATV, we came to the gazebo and had lunch together. After that, I and my little brother made sand castle and swimming in there. After that, we took a bath and prepared to go home.

It was my holiday in Gemah Beach. I really enjoyed that moment.

The students was given 40 minutes to create recount text in the group based on the title that was given by the researcher. The first, the students discussed and gathered idea about the topic. After that, one of them in group investigate write their ideas in a student worksheets / paper.

2. Treatment in Experimental Class

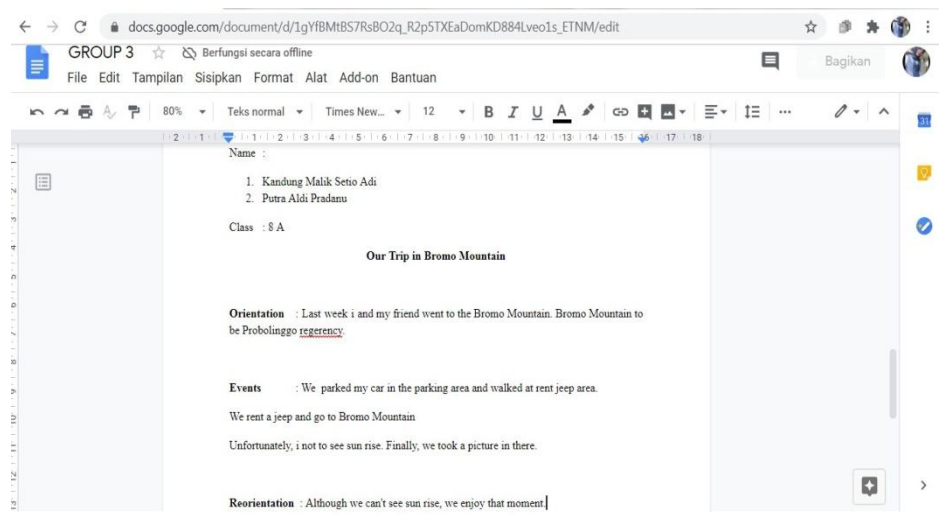
a. The First Treatment

The first treatment, the researcher conveys about Simple Past Tense and shows the example of recount text. Then, the researcher asked the student to identify the generic structure of recount text. After that, the writer introduce about the collaborative writing method that would be used in teaching recount text by using Google Docs and the researcher divided the class in 13 groups.

b. The Second Treatment

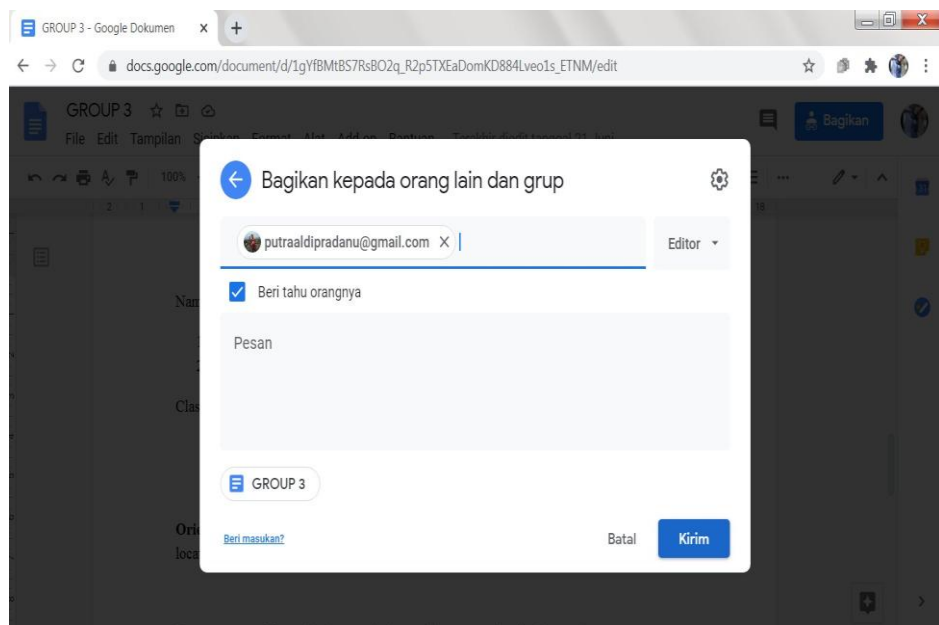
In second treatment the students were asked to make a simple recount text in their group that consist of two students based on the instruction and topic that given by researcher in group of Google Docs. The students were asked to make recount text consist of more than 100 words. The title is “Our Trip in Bromo Mountain”. It was conducted in outside of the class. Before conducting it, the researcher gave an access the students 1.

Picture 3.2 Recount Text Through Google Docs on Collaborative



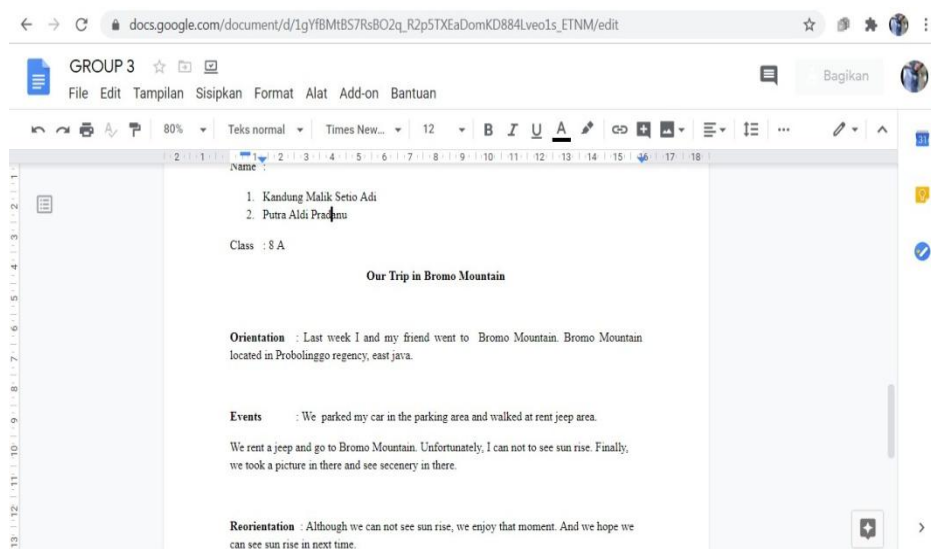
The students was given 40 minutes (20 minutes for student 1 and 20 minutes for student 2) to create recount text based on the title that was given by the researcher in group Google Docs.

1.3 Google Docs Share



After the student 1 created the recount text on Google Docs, the students 1 gave an access to colaborate. First, student 1 open their Google Docs account and find “share” icon and clicking that icon. By click it, the student 1 enable to invite the helper (student 2) by typing student 2 Gmail account. In this step, the reseacher helped the students to share recount text on the student 2 Google Docs account. After that, the student 2 read recount text from student 1 and the student 2 looked for the correction and addition of recount text.

1.4 Editing Recount Text on Google Docs



The student 2 edited, added, and deleted the error words in Google Docs. The researcher helped the students how to edit and add the text become good recount text.

J. DATA ANALYSIS

After collecting the data pre-test and post test from control class and experimental class, the researcher calculated the data use SPSS 16.0 version for windows. According to Tanzeh (2009 : 69), data analysis is a review of a series of activities, grouping, systematization, interpretation, and verification of data so that phenomenon has social value, academic, and scientific. In this research, the technique of the data analysis is quantitative data analysis technique to know students' collaborative writing achievement on recount text between the students who are taught by using Google Docs and those who are taught by using group investigation. The researcher used

Mann-Whitney U Test because the data was interval and the result of normality testing showed that the data was not normally distributed.