

CHAPTER III

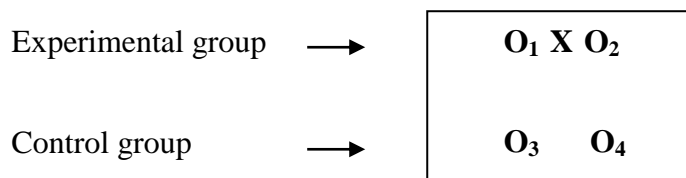
RESEARCH METHOD

The subchapter included in the discussion of research method are Research design, Population and sample, Research instrument, validity and reliability testing, data collecting method, and data analysis.

1. Research Design

Approach is a way of considering or doing something. This research belongs to quantitative approach that uses and deals with statistical calculation. Based on Best (1981:257), “Statistical analysis is the mathematical process of gathering, organizing, analyzing, and interpreting numerical data, and is one of the basic phases of the research process.

Considering the research of the problems and the purposes of the research, research design used in this study is quasi-experimental design. The research is conducted with two-group pre-test and post-test design, which can be described as the following:



(Sugiono, 2015:116)

In which:

O_1 = pre-test for the experimental group

- O₂** = post-test for the experimental group
- O₃** = pre-test for the control group
- O₄** = post-test for the control group
- X** = treatment using Peer Assessment technique

The experimental group is the group who will be given a treatment, and control group is the group who will be without given a treatment.

2. Population and sample

1. The Identification of Population

The population of this research is first grade students of SMAN 1 TULUNGAGUNG , which consist of seven classes and each consist of 30 until 34 students each classes. All the first grade students have a similar quality because they are not classify yet. The class that the writer have choosen is X-1 and X-3, which consist of 13 male and 21 female in X-3 and consist of 11 male and 19 female in X-1.

2. The Sample and Sampling Technique

Sample is a part of the total number and the characteristic belong to population. In the SMAN 1 Tulungagung there are a lot of classes. The researcher choose the 10th or the first grade of students that consist of 128 students all the classes. Because of there are a lot of populations, the researcher will use random sampling to choose the samples. X-1 class and X-3, from X-1 until X-4 class will be chosen to become the samples. X-1 class as an experimental group and X-3 class as a control

group. After they do the pre-test and tryout to determine their basic ability before they have the treatment.

Sampling technique used in this quantitative research random sampling as a part of probability sampling. This kind of technique was used because in random sampling the researcher was allowed to choose the sample based on the sample that have similar in opportunity. In addition, the researcher the availability came when the researcher got permission from the class teacher and school principle.

3. Research Instrument

Data is any information that can answer any research questions or problems. To get the data, the writer used pre-test and post-test as the main instrument to measure students' writing skill in descriptive text. Pre-test was given in both classes to make sure that they have the same level of background knowledge and to determine controlled and experimental class in the beginning of the session(before the treatments). Then the post-test was given in the end of the session (after the treatments) to know wheter implementation of peer-assessment using WhatsApp effective in teaching of descriptive text using a task from the writer that showing in appendices and scoring by the writer use the analytical scoring by Brown and Balley.

4. Validity and Reliability Testing

Validity test of the instrument was done to know whether it measures what is intended to measure to gain correct decision in

designing stated by Airasian (16:2003) also”... test validity is defined here as the degree to which a test measures what it claims.” Brown(231:1996), the test used for this instrument is face validity. Face validity is validity which shows if appearance or form of an instrument measures what it is meant to measure. This kind of validity is focusing on the form or the appearance of the instrument. The instrument of this study is to measure the students’ ability in writing descriptive text, so the form or the appearance of test is open ended question(not multiple choice) in which the students are asked to write descriptive text.

The researcher use the face validity from two of experts and one of English teacher. The researcher use a blueprints as the resource to construct the instrument, and form to make a validation. From the first validation process the writer still have some revision. And have done at second validation process, in this validation the writer revise it based on the comment of the validator. The mistake at the topic that less of specification and the instruction need to closer with the blueprint. The evidence of the procees is shown in appendices.

Reliability is a consistency of a set of measurements and an istrument stated by Airasian(17:2003). Here the scoring use the analytic scale for rating composition task from Brown & Bailey 1984 that the reliability are tested and from a credible source of assessment.

Table 3.1

Scoring Rubric for Writing Descriptive Text (Brown & Bailey 1984)

Construct measured	20-18 Excelent to good	17-15 Good to adequate	14-12 Adequate to fair	11-6 Unacceptable	5-1 Not highschool level work
I. ORGANIZATION Introduction, body, and conclusion	Appropriate title, effective introductory paragraph, topic is stated, leads to body; transitional expression used; arrangement of material shows plan (could be outlined by reader) ;supporting evidence given forgeneralization;conclusion logical and complete.	Adequate title, introduction and conclusion;b ody of essay is acceptable but some evidence may be lacking some ideas aren't fully developed; sequence is logical but transitional expression may be absent or misused.	Mediocore or scant introduction or conclusion ; problem with the order of ideas in body; the generalizations may not be fully supported by the evidence given problems of organization interfere	shaky or minimally recognizable introduction can barely be seen; severe problems with ordering of ideas; lack of supporting evidence; coclusion weak or illogical; inadequate effort at organization	Absense of introduction or conclusion; no apparent organization of body; severe lack of supporting evidence, writer has not made any effort to organize the composition (could not be outlined by the reader
II. Logical development of ideas Content	Essay addresses the assigned topic; the ideas are concrete and thoroughly developed; no extraneous material; essay effort is thought	Essay addresses the issues but misses some points; ideas could be more fully developed ; some extraneous material is present	Development of ideas not complete or essay is somewhat off the topic; paragraph aren't divided exactly tight	Ideas incomplete essay does not reflect careful thinking or was hurriedly written innadequate effort in area of content	Essay is completely inadequate and does not reflect the level work not apparent effort to consider the topic carefully
III. Grammar	Native like fluency in English grammar;correct use of relative clauses, prepositions, modals, articles, verb forms, and	Advanced proficiency in english grammar problem dont influence communication , although the reader is aware of	Ideas are geeting through to the reader but grammar problems are apparent and have a negative	Numerous serious grammar problems interfere with communication of the writer ideas; grammar	Severe grammar problem interfere greatly with the message ;reader cant understand what th ewriter was trying to say

	tenses, sequencing ;no fragments or run-on sentences	them; no fragmnet or run-on sentences.	effect on communication ;run –on communication and fragmnet sentences	review of some areas clearly needed ,difficulty to read sentences	unintelligibl e sentence structure.
IV.Punctuation, spelling, and mechanics	Correct use of English writing conventions; left and right margins, all needed capitals, paragraphs indented punctuation and spelling; very neat	Some problems with writing conventions or punctuation occasional spelling errors ;left margin correct; paper is neat and legible	Uses general writing convention s but has errors; spelling problems distract reader; punctuatio n errors infere with ideas.	Serious problems with format of paper; part of essay not legible errors in sentence punctuation unacceptable to educated readers	Complete disregard for English writing conventions; paper illegible; obvious capitals missing, no margins, severe spelling problems
V.Style and qulity of expression	Pecise vocabulary usage; use of parallel structures; concise; register good	Attempts variety; good vocabulary ;not wordy ;register OK; style fairly concise	Some vocabulary missued ;lack s awareness of register; may be too wordy	Poor expression of ideas; problems in vocabulary ;lacks variety of structure	Innapropriate use of vocabulary; no concept of register or sentences variety

3.2 Cronbach's Alpha Interpretation Based on Triton

Cronbach'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. 3 The Result of Reliability in Pretest**Reliability testing**

Cronbach's	N of Item
Alpha	
.645	5

The table above showed that in numberof items 5, the reliability of Cronbach's Alpha was 0.654. in other words the pretest was reliable.

Table 3. 3 The Result of Reliability in Posttest**Reliability testing**

Cronbach's	N of Item
Alpha	
.656	5

The table above showed that in numberof items 5, the reliability of Cronbach's Alpha was 0.656. in other words the pretest was reliable.

5. Normality and Homogeneity Testing

According to Shapiro-Wilk the normality perform pre test and post test determine the distribution of the data from the sample is normal. In this test the researcher using SPSS voll. 20. If the normality *Asymp. Sig.* is more than the level of significance α (0.05), scores will be normal distributed.

Besides the Normality the researcher also use the Homogeneity test is used to test wheter the data from the two groups have the same types in order that the hypotheses can be tested by T-test. Like normality test, this kind of test also uses SPSS voll. 20. The step are the same like those of normality test.

Furthermore, after testing its normality and homogeneity the researcher began to test the hypothesis.

The researcher seeks the significant differences result from the post test data. The writer also use SPSS Voll. 20 to calculate the t-test.

Table 3.4 Normality Test

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wil		
	Statistic	Df	Sig.	Statistic	df	Sig.
experimental	,204	27	,005	,929	27	,066
Control	,100	27	,200	,969	27	,583

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The purpose of the normality test was as the absolute rule that must be obeyed by the researcher to did the t test. Based on the table, the sig of the experimental group was 0,066 that bigger than 0,05 and the control group was 0,583 or bigger than 0,05. In the other words, the data was normal distribution.

Table 3.5 Homogeneity Testing

Test of Homogeneity of Variances			
score posttest			
Levene Statistic	df1	df2	Sig.
4,770	1	51	,034

ANOVA					
score posttest					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5865,762	1	5865,762	349,705	,000
Within Groups	855,446	51	16,773		
Total	6721,208	52			

From the result above, the test is homogen because the sig was 0,034 that bigger than 0,05. So, it means that the data qualified to be analyzed.

6. Data Collecting Method

The researcher will use a test to collect the data. The test will be in the form of writing test to see the different result of students' ability in writing of descriptive text who being taught by using and without using Peer Assessment technique through WhatsApp. Because of the research will be quasi-experimental design, the researcher will give pre-test and post-test to both of experimental and control groups. But, the threatment will be given to the experimental group only. The data is the score from both test and fill the data collection and the data will be analyze using SPSS voll.20. The data will be collect in the process of experiment to the subject start from collect the data to make sure that the data is valid using *Try Out*, until the end of the experiment is that *Post-test*.

a. Pre-test

During four weeks of meething the researcher conducted the pretest in the first meeting , April 26th 2018 in experimental group and May 2nd 2018 in control group.

b. Threatment

May 3th 2018 until 17th the resercher conducted the threatment to the both of group.

The peer assessment through WhatsApp in experimental group and the traditional material in control group.

c. Post-test

May 22nd 2018 the researcher conducted the post-test in experimental group. And May 24th 2018 the researcher conducted the post-test in control group.

7. Threatment

The main part of this study is the treatment, the researcher would like to use Peer Assessment as the one of technique to assess the students writing descriptive text. In this technique, the researcher will use the Whatsapp Group as the implementation of improving peer assesment for the students. Through the group of whatsapp the teacher will pairing the students and the students will do the task. Each group will be given a task from the teacher to make a descriptetive text. Here, the group will practice as a pair discussion and giving a comment throught whatsapp group after the class. After they have finished the writing task, they will sent their task to group and the peer will giving a comments to her/his partner based on the table of criteria. Then, after they have finished they will have feedback from the teacher. The table of criteria content some of what the learners should have when they were write. As we knew that in writing descriptive need to be mastered in some criteria as like the general stucture, grammar and other that use in descriptive text.

8. Data Analysis

Data analysis is the process to identify the data that related with the research. After the data of pre-test and post-test are collected, the score of the data will be analyzed by using statistical instrument Special Package for the Social Sciences (SPSS) voll.20 especially using *t*-test to know the effectiveness of the variable. This test was used because it analyzes the *t*-statistic, *t*-distribution and degress of freedom to determine a *p* value(probability) that can be used to determine wheter the population means differ. The *t*-test is one of a number of hypothesis test. The content of the students' works were analyzed and assessed using rubric for descriptive text Brown and Balley.