

CHAPTER III

RESEARCH METHOD

This chapter discusses the research design and method, the place and time of the research, the population and sample of the research, the data collection technique, the content of the intervention, the data analysis technique, and the statistical hypotheses.

A. The Research Design

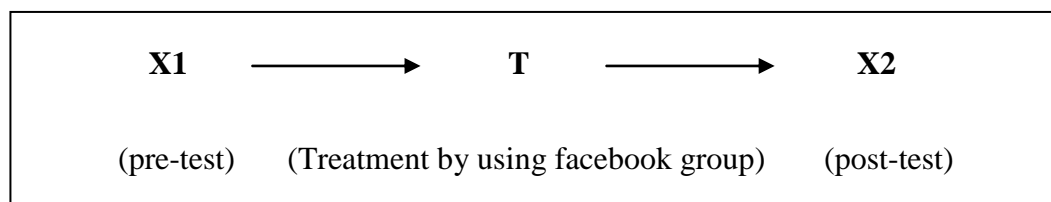
The aim of research is to know the influence of facebook group to improve students writing achievement in descriptive text of the eight grade students of SMP Aswaja Kunir. This research design encompassed the method which was defined as the way to achieve the purpose of the research. The appropriate one to be used is pre-experimental design on one group pretest-posttest design. According to Arikunto (2006: 85) there are three kind of Pre-experimental design, those are: one shot case study, pre test and post test group and static group comparison.

Pre experimental design is the quantitative research design most closely associated with action or applied research. This research was pre-experimental design because the purpose of this study is to identify cause-effect between both the variables, where as selecting the topic (x) as independent variable and students' writing ability (y) as dependent variable. This design, basically involves one group which is experimental group. The

experimental group was given a treatment by implementing facebook group to improve students writing ability in descriptive text.

This research used one group pretest posttest design. A pre-experimental design that executed just in one group without control group, according to Gay (1992:34) this design is uncontrolled because there is no control group to use to comparison. This design provide some improvement for the effect of treatment are judge by difference between pretest and post-test score and no comparison with a control group. The study was conducted into two steps: pre-test and post-test. A pre-test provides a measure on some attribute or characteristic that is assessed in an experiment before the group get a treatment, while a post-test measure on some attribute or characteristics that is assessed for participants in an experiment after a treatment. Campbell and Stanley (1963), present a one group pretest-posttest design as X1 is the pre-test, T is the treatment, and X2 is the posttest. It is to be illustrated as follow:

Table 3.1 The illustration of research design



The research steps by using one group pretest posttest design, as follows:

1. Giving the Pre- test (X1).

Pretest was delivered at the first time before the writer applied the treatment. In the first meeting pre-test was done to measure students' writing skill. In the pre-test, the students were asked to write a descriptive paragraph related to the topic based on the own knowledge. The length of the paragraph was consisted of 5-7 sentences. The pre-test was in written form.

2. Doing the treatment by using facebook group (T).

For the treatment, the teacher using facebook group to gave an additional time in teaching English. The teacher made a close group to share the material, open discussion, and also gave a duty for the students via facebook group.

3. Giving the post- test (X2).

After treatment, the researcher gave the post-test in the last meeting. The test was similar with the pre-test. The post-test was done after the treatment was given to the students to practice writing by using facebook group. In the post test students was asked to write a descriptive text that have been done in the pre-test. It was used to know the students' development in writing.

B. Population and Sample

The researcher needs to define the population before collecting the sample, including the description of the member to be included. Population is all members of well defined class of people, events, or objects (Ary et al, 2010:148). According to Nawawi (2012) population is the whole research objects which include human, things, animals, plants, indications, test value or events as data sources which have particular characteristics in a research. In other hand, Sugiyono (2013: 115) states that population means generalization of objects or subjects with certain qualities and characteristics determined by the researcher to be studied and drawn to become a conclusion.

In this study the population was all of second grade students of SMP Aswaja Kunir in academic year 2017-2018, which consists of two classes. The quantity of students in each class of the population as follow:

Table 3.2 Population of the Research

Class	X (total of students)
VIII A	20
VIII B	20
Σ X	40

Since the barriers that often appear in term of time, capability and cost to take all members of population, so the researcher can take a portion of population which is known as sample. Sample can be defined as the smaller part of population. According to Ary et al (2006:167) sampling is the small group that is observed. Sampling is also as a way the researcher select number of individuals as a sample which presents the population. In conducting this

research, sampling technique is needed to take a representative sample of the whole population. Nawawi (2012) describes sampling technique as the way to take the sample whose numbers are appropriate to the sample size which will be used as real data source, by concentrating on the characteristics and the spread of population in order to get representative sample or truly represent the population. Ary et al (2010:149) classifies two major types of sampling procedures into probability sampling and non-probability sampling. Non-probability sampling is also called non-random sampling. Non-random sampling is a sampling technique which is used when it cannot be ensured that each item has an equal chance of being selected. There are three types of non-random sampling; convenience sampling, quota sampling, and purposive sampling. Based on the three types of non-random sampling, this study used purposive sampling. The writer chooses the sample based on who the writer thinks would be appropriate for the study, a need or purpose for the research and represent the population. In purposive sampling, also referred to as judgment sampling, sample elements judged to be typical or representative are chosen from the population (Ary et al, 2010:156). In other words, the researcher should be sure that the sample is representative and suitable with the purpose of research since it was impossible to take the sample randomly in case of the design and the agreement of the school. As the process of sampling, the researcher finally decided to choose VIII A class that consists of 20 students by considering some factor:

1. VIII A class was assumed to be homogeneous based on the recommendation of an English teacher that handles second grade students' of SMP Aswaja Kunir.
2. In order to the apply the experimental stage, the samples must not be too good and too bad in their English achievement, especially writing descriptive text. In other words, the researcher took the typical sample. It was intended to reduce the extraneous variable may appears since the design is pre-experimental research without control group.
3. All of students in VIII A were not muslim boarding school students, so they can access facebook at home to send their homework or their assignment.

C. Variable

A variable is everything that will become that object of research or the influencing. Variable is everything to which the researcher expects to find the answer and that become point of research. The most important classification is on the basis of their use within the research under consideration, when they are classified as independent variables or dependent variables (Ary, 1985:30).

1. Independent variable: is variable that consequence of or upon antecedent variables. One independent variable must be the treatment variable. One or more groups receive the experimental manipulation or treatment. In this study, the teaching descriptive writing by using facebook group is the independent variable.

2. **Dependent variable:** is the response or the criterion variable that is presumed to be caused by or influenced by the independent treatment conditions and any other independent variables. In this study, the dependent variable is the student's descriptive writing achievement.

D. Research Instrument

Any scientific study needs essential instruments to gather the required data. The selection and construction of appropriate, valid and reliable research instruments are very essential step a scientific investigation. Instrument is a means for gathering data. As an experimental research, the instrument use in this research is tests. According to Ary et al (2010:201) test is a set of stimuli presented to individual in order to elicit responses on the basis of which a numerical score can be assigned.

The test mostly used for the several research instruments. The test given for the students were divided into two tests.

1. Pre-test

As stated previously, the researcher administered pre-test before the treatment was given. It be done on April 3rd 2017 followed by 20 test taker. The researcher came to the class, and explained the material also told to the students what they had to do. The pre-test in writing ability the researcher asked the students to write paragraphs in descriptive text based on the topic have been learn. The topic that was given using some topic and rubric was used to score the students' work. The aim of administering

pre-test is to get initial information of the groups before the experimental is conducted.

2. Treatment

After administering the pre-test, the researcher gives the treatment to the students. The treatment will be applied on april 5rd 2017. The researcher applied the treatment by using facebook group to discuss and share the information. In the first meeting the researcher shares the material about descriptive text. In this section the students download and read the material well. Then they give the comment about what they didn't understand. The researcher will answer and give the explanation about what students not understand. Then the researcher asked the students to observe a sample of descriptive text paragraph and give the identification of it. Then share their works in facebook, the researcher give limited time to do it before the next meeting. In the second meeting, the researcher asked the students to observe some vocabulary related the material and some example of descriptive text. The teacher asked the students to read the vocabulary, the researcher also gives the students a picture of animals. In this stage, the researcher asked the students to describe what they look based on the picture in facebook comment column. The third meeting, the researcher share the material about simple present tense and ask the students to correct a descriptive paragraph which the researcher share in facebook group. The students correct the paragraph in comment column of

facebook group. In the last meeting, the researcher asked the students to write a descriptive paragraph about their pet or animals.

3. Post-test

The last method use to collect the data was administering post-test. Post-test was administered to the group after being exposed with facebook group as the treatment. It be done on April 13rd 2017. The post-test in writing ability, the researcher done after giving the treatment in experimental research or after teaching writing by facebook group . The purpose of administering post-test in this study is to observe and measure any changes of the students writing ability after being taught by facebook group. The posttest has done to get writing score of students after doing the treatment. Furthermore, the scoring for the tests was based on the rating scale scoring rubric.

Table 3.3 Scoring Rubric / Rating Scale

The Writing Assignment Rubric by brown(2007)

Aspect	Score	Performance Description
Content (C) 30% ✓ Topic ✓ Details	4	The topic is complete and clear and the details are relating to topic
	3	The topic is complete and clear but the details are almost relating to the topic.
	2	The topic is complete and clear but the details are not relating to the topic.
	1	The topic is not clear but the details are not relating to the topic.
Organization(O) 20% ✓ Identification. ✓ description	4	Identification is complete and descriptions are arranged with proper connectives.
	3	Identification is almost complete and descriptions are arranged with almost proper connectives.
	2	Identification is not complete and descriptions are arranged with few misuse connectives.
	1	Identification is not complete and descriptions are arranged with misuse connectives.

Aspect	Score	Performance Description
Grammar (G) 20% ✓ Use present tense. ✓ Agreement	4	Very few grammatical or arrangement inaccuracies.
	3	Few grammatical or arrangement inaccuracies but not affect on meaning.
	2	Numerous grammatical or arrangement inaccuracies.
	1	Frequent grammatical or arrangement inaccuracies.
Vocabulary (V) 15%	4	Effective choice of words and word form.
	3	Few misuse of vocabularies, word form, but not change the meaning.
	2	Limited range confusing words and word form.
	1	Very poor knowledge of words, word form, and not understandable.
Mechanics (M) 15% ✓ Spelling. ✓ Punctuation. ✓ Capitalization.	4	It uses correct spelling, punctuation, and capitalization.
	3	It has occasional errors of spelling, punctuation, and capitalization.
	2	It has frequent errors of spelling, punctuation, and capitalization.
	1	It is dominated by errors of spelling, punctuation, and capitalization.

(Adapted from Brown (2007:214))

$\text{Score} = \frac{C+O+G+V+M}{20} \times 100$
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Table 3.4 Standard of Assessment

The table below states the classification of the scores.

No.	Grade	Level	Range of Score
1	A	Excellent	81 – 100
2	B	Good	61-80
3	C	Fair	41-60
4	D	Poor	0-40

Qualification of scores:

81 – 100 = Exceeds the standard

61 – 80 = Meets the standard

41 – 60 = Approaches the standard

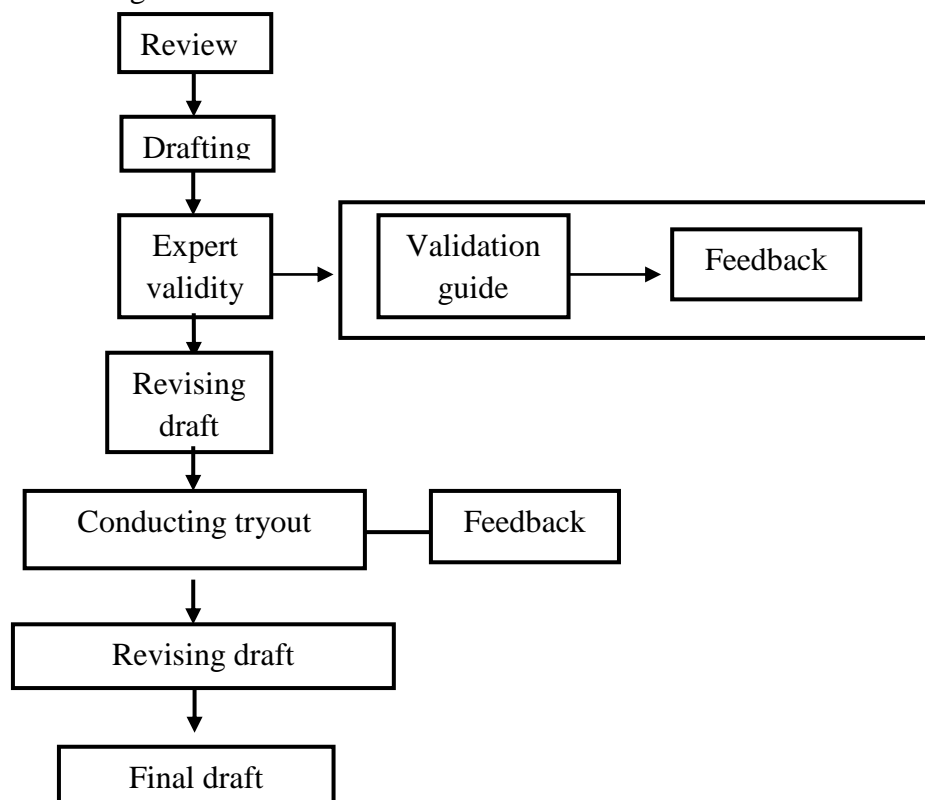
0 – 40 = Does not meet the standard

E. Validity and Reliability Testing

In this study, the researcher used a test as the research instruments. Both pre-test and post-test were intended to measure students' writing ability. The tests should fulfill some factors to get the data as well.

The factors tested here are validity and reliability of the tests. By using a valid and reliable instrument to collect data, it was expected that the data and the result of the research itself also valid and reliable.

The instrumentation to show the validity and reliability of the test can be seen on figure 3.1



Based on the figure 3.1, the first step to get valid and reliable test is the researcher will review the book and syllabus to draft the test. After drafting

the test, the researcher shows the test to expert validity to get feedback and validation guide. Then, the researcher revising the draft of test. Next, the researcher will try out the test to students who have the different class as the sample to get feedback from students. The last, the researcher will revise the test again based on the feedback to get the final draft.

F. Validity Testing

Validity is the most important consideration in developing and evaluating measuring instrument. Ary et al (2010:225) defines validity as the extent to which an instrument measured what it claimed to measure. In other words, validity can be defined as the instrument that measures what is supposed to be measured. In this study, to ensure tests validity the researcher used construct validity, content validity and face validity. The explanation of the content validity, construct validity, and face validity as follow:

1. Content Validity

Lodico et al. (2006:93), the content validity is composed of two items of validity: sampling validity and item validity. Both sampling validity and item validity involve having experts examine items that make up the instrument.

The test was said have content validity if its contents constitute a representative sample of language skills, structure, etc., being tested. Beside that the content of instrument has to relevant with the purpose of

the test. In this case, the content validity should refer to the “Kurikulum 2013”.

Based on the standard competence in syllabus of kurikulum 2013, it is mentioned that the eight grade of Junior High School are expected able to comprehend the meaning in the simple text in the form of descriptive text to interact with the society around them. Based on the standard competence above, the students are expected to be able to write a simple text in the form of descriptive text.

In this research, the content of items in testing used descriptive text. It was suitable for the eight grade students of SMP Aswaja Kunir.

Table 3.5 Content Validity

Core Competence	Standard Competence	Indicators
1. Menghargai dan menghayati ajaran agama yang dianutnya.	1.1 Mensyukuri kesempatan dapat mempelajari bahasa inggris sebagai bahasa pengantar komunikasi internasional yang diwujudkan dalam semangat belajar.	
2. Menghargai dan menghayati perilaku jujur, santun, dan bertanggung jawab, dalam berinteraksi secara efektif dengan lingkungan sosial dan alam dalam jangkauan pergaulan dan keberadaanya.	2.1 Menunjukkan perilakun santun, jujur, dan bertanggung jawab dalam melaksanakan komunikasi interpersonal dengan guru dan teman.	

Core Competence	Standard Competence	Indicators
3. Memahami dan menerapkan pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni budaya terkait fenomena dan kejadian tampak mata.	3.1 Menerapkan struktur teks dan unsur kebahasaan untuk melaksanakan fungsi sosial teks deskriptif dengan menyatakan dan menanyakan tentang deskripsi orang, binatang, dan benda, pendek dan sederhana, sesuai dengan konteks penggunaannya.	3.1.1. Menentukan struktur teks dan unsure kebahasaan untuk melaksanakan fungsi sosial teks deskriptif dengan menyatakan tentang deskripsi orang, binatang, dan benda, pendek dan sederhana, sesuai dengan konteks penggunaannya. 3.1.2. Menentukan struktur teks dan unsur kebahasaan untuk melaksanakan fungsi sosial teks deskriptif dengan menanyakan tentang deskripsi orang, binatang, dan benda, pendek dan sederhana, sesuai dengan konteks penggunaannya.
4. Mengolah, menyaji dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di	4.1 Menyusun teks deskriptif lisan dan tulis, pendek dan sederhana tentang orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks dan unsure kebahasaan yang benar dan sesuai konteks.	4.1.1. Menyusun teks deskriptif lisan, pendek dan sederhana tentang orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan yang benar dan sesuai konteks. 4.1.2. Menulis teks deskriptif, pendek dan sederhana tentang orang, binatang, dan benda, dengan memperhatikan

sekolah dan sumber lain yang sama dalam sudut pandang/teori.		fungsi sosial, struktur teks, dan unsur kebahasaan yang benar dan sesuai konteks.
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Table 3.6 Content Validity of Test

Competence Indicators	Test items	
	Pre-test	Post-test
4.1.1. Menyusun teks deskriptif lisan, pendek dan sederhana tentang orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan yang benar dan sesuai konteks.		
4.1.2. Menulis teks deskriptif, pendek dan sederhana tentang orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan yang benar dan sesuai konteks.	Writing test	Writing test

Based on Table 3.5 and 3.6 showed that the instrument of the test was valid based on the core competence, standard competence, and indicator which mentioned in syllabus.

2. Construct validity

Construct validity deals with the relationship between a test and a particular view of language and language learning (Johnson, 2001: 303). In this research, the test had high construct validity since it contained prompt in form of guided questions to measure students' skill in writing a descriptive text.

3. Face validity

A test is said to have face validity if it measures what is supposed to measure. Face validity is hardly a scientific concept that is very important. A test which does not have face validity may not be accepted by test takers, teachers, educators, authorities or employers. In this test, there are some aspects that are considered from this test to make a good test based on the validity.

- a. The instruction must be clear for the students
- b. In this test, the students can conduct a paragraph and express their ideas in a piece of paper. The instruction based on the syllabus and suitable with their level.
- c. Time allocation must be clearly. The teacher give limited about 40 minutes to write a paragraph.

G. Reliability Testing.

According to Ary et al (2010:224) reliability indicates how consistently a test measures whatever it does measure. Reliability also called as consistency or dependability of a test, if the students are given same test on two different times, the test should produce similar results. The word similar was used here because it was almost impossible for the test takers to get the same scores exactly when the test was repeated on the following day. Meanwhile, the more similar the scores are, the more reliable the test is. The reliability coefficient is 0-1, the ideal reliability coefficient is 1 which means that the result of the test are precisely the same, the weakest reliability

coefficient is 0 which means the result of the test were unconnected (Isnawati:2012).

To measure the reliability result of the test, the writer used rater reliability or scorer reliability, this kind of reliability testing is suitable for subjective tests which involves the rater in the process of judgment such as writing and speaking test. In this research the writer use inter-rater reliability where the two scorers did the scoring and the two sets of scores gotten from the two scorers were calculated to get the correlation coefficient. The two scorers were the writer and the English teacher.

The writer used Alpha Cronbach Reliability Coefficient in IBM SPSS 20.00 to analyze the correlation coefficient. The criteria of reliability's degree can be seen on Table below, whereas the reliability's result can be seen on the table 3.7. According to Sugiyono (2015:231) the value of cronbach's alpha can be interpreted as follow:

Table 3.7 Cronbrach's Alpha Interpretation Based on Sugiyono

Cronbach's	Alpha Interpretation
0,00 – 0,199	Less Reliable
0,20 – 0,399	Rather Reliable
0,40 – 0,599	Quite Realiable
0,60 – 0,799	Reliable
0,80 - 1,00	Very Realiable

The result of tryout score from rater 1 and 2 can be seen in the following table (3.8)

Table 3.8 Result of pretest and posttest tryout scores.

Pre-Test Tryout		Post-Test Tryout	
Rater 1	Rater 2	Rater 1	Rater 2
60	65	60	65
40	50	40	50
85	80	85	80
50	55	50	55
70	75	70	75
60	55	60	55
55	60	55	60
75	75	75	75
75	75	75	75
70	75	70	75
75	85	75	85
65	70	65	70
70	75	70	75
70	75	70	75
64	68	64	68
63	65	63	65
63	70	63	70
65	65	65	65
66	70	66	70
72	70	72	70

After the score of pre-test and post-test (tryout) calculated using IBM SPSS 20.00 the writer got result as follows:

Table 3.9 Reliability of Pretest.**Reliability Statistics**

Cronbach's Alpha	N of Items
.659	2

Table 3.10 Reliability of Post Test.**Reliability Statistics**

Cronbach's Alpha	N of Items
.610	2

H. Normality Testing

1. Normality Testing

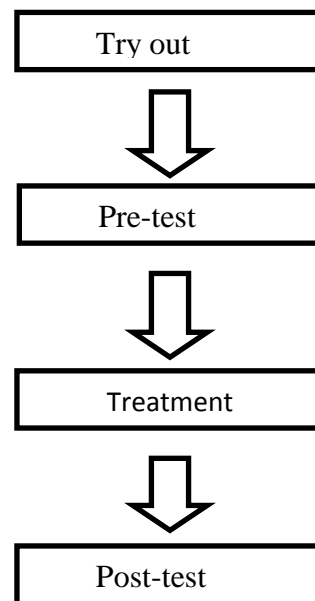
Normality testing is conducted to know whether the gotten data is normal or not. The computation of normality testing in this research using *IBM SPSS Statistics 20.00* is *One-Sample Kolmogorov-Smirnov test* by the value of significance (α) = 0.050. Testing of data normality is conducted by the rules as follow:

- If the value of significance > 0.050 so the distribution 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.

I. Data Collection

Data of this study was collected by administering test. Test is draft of question or drill used for to know the skill, intelligence and ability of individual or group (Arikunto, 1997: 18). It means that test is series of question, exercise, or other means, which are used to measure the skill and the knowledge, intelligence of a person or group.

There were several steps in collecting data that was done by the writer in order to get the data needed, they were try out, pre-test, treatment and post-test. The diagram of the steps can be seen in the following table (3.12):

Figure 3.2 Method of Collecting Data

J. Data Analysis

Data analysis is the way data analyzed by the researcher. In managing and analyzing the data collected, the researcher will use quantitative data analysis so the researcher will analyze the data by using statistical technique. The analysis is used to find the significant difference of the students' writing descriptive text ability before and after the use of facebook group as a media. In this study, the researcher used paired sample T-Test through SPSS 20.0 to analyze the data. Indeed, the method in further analysis of the data is as follow:

1. Formulating the hypotheses. The hypotheses are in the form of Null hypothesis (Ho) and Alternative Hypothesis (Ha).
2. Determining the value of Tcount. It can be seen on the output of SPSS 20.0 analysis.

3. Determining the significance value based on the output of SPSS 20.0 analysis. In this case, the value of significance should be lower than 5% significance level (< 0.05).
4. Determining hypothesis testing. Simply, the hypotheses testing are:
 - If the value of significance < 0.050 . H_0 is rejected and H_a is accepted.
Its mean that there is difference between use facebook group and do not use facebook group towards students' achievement in writing.
 - If the value of significance > 0.050 . H_0 is accepted and h_a is rejected.
Its mean that there is no difference between use facebook group and do not use facebook group towards students' achievement in writing.