

CHAPTER III

RESEARCH METHOD

This chapter contains the description of the method employed in the research. The description covers research design, population, sample and sampling, research instrument, validity, and reliability testing, normality testing, data collecting method and data analysis.

A. Research Design

This research used quantitative research. Quantitative research is explaining phenomena by collecting numerical data that are analyzed using mathematically based methods in particular statistics (Aliaga and Gunderson in Mujis, 2004 : 1).

Before conducting research, the researcher should identify what kind of the research and need some planning how the research would be conducted. This study used an experimental research design especially used pre-experimental design. The design of this research used one group pretest and posttest design. The requirement of this design is stated by Ary (2010 : 302), pre experimental design does not have random assignment of subjects to groups or other strategies to control extraneous variable. It means in this research the researcher does not have an authority to choose the sample.

In this case, the researcher uses pre-experimental design means using one class as single group who get the treatment and the group get pre test and post test to know the result of treatment. The pre test and the post test are given to take the

score of the students' ability before and after being taught using instagram application. The researcher only uses one class as the subject of the study. Furthermore, conforming to why using pre-experimental research because the researcher is not feasible to have random assignment to determine the sample of the research. That is why in this study the researcher just take one group or class and sets pre test and post test to see the result of the treatment.

The One Group Pretest – Posttest Design as follows :

Table 3.1 : The Illustration of Research Design One Group Pre Test Post Test

Pre Test	Treatment	Post Test
Y1 (DV)	X (IV)	Y2 (DV)

X : Instagram Content Application (Independent Variable)

Y1 : Students' achievement in writing recount text before taught by using Instagram application (Dependent Variable)

Y2 : Students' achievement in writing recount text after taught by using Instagram application (Dependent Variable)

The procedures of experimental research that use one group pre test and post test design in this study are described as follows :

1. Administering Pre test (Y1) with a purpose of measuring students' descriptive writing ability before applying instagram application.
2. Applying experimental treatment teaching writing recount text by using instagram application.

3. Administering post test (Y2) with a purpose of measuring students' descriptive writing ability after applying instagram application.

This research intended to investigate the effectiveness of using Instagram application in teaching writing towards students' writing recount text ability at second grade of SMPN 1 Tulungagung. The use of the treatment is aimed at proving whether the increase scores possibly got by the researcher. Thus, the effectiveness of that treatment is known the increase score when the students taught using instagram application by comparing pre test and post test score.

The researcher conducted 4 meeting in the classroom on 13, 17, 20 and 24 February 2020. For the first meeting, the researcher conducted pre-test in order to know the students' general knowledge about the material, after got the pre-test, the researcher give little explanation about writing recount text. Next, in the second meeting, the researcher continued the explanation about the material of Recount text, after gave explanation, the researcher told the students about instagram application and asked the students' instagram name account. In the end of the meeting, the researcher give the task to upload photo in the instagram account with the caption of the photo using recount text included orientation – events – reorientation with the certain topic based. The students given 4 hours between 18.00 – 22.00 to upload the photo in that day when the students given the task by the researcher. After the students uploaded the photos, the researcher gave comments in the comment coloum in the instagram in order to give feedback and made some corrections about grammar, punctuation, verb, etc. after that, the students should revised the story in the caption. In the third meeting, the researcher showed the result of the students' writing in the LCD and discussed

together, in the end of the meeting, the researcher asked the students to upload a photo again but not in a limited topic, the topic was free, the instruction same in the task before, from the content and instruction. In the last meeting or fourth meeting, the researcher gave the general feedback and conducted the post-test.

Table 3.2 Schedule of Researcher's Activities

No.	Date	Activities
1	February, 13 rd 2020	Administering pre-test and treatment
2	February, 17 th 2020	Administering the treatment by using lesson plan 2
3	February, 20 th 2020	Administering the treatment by using lesson plan 3
4	February, 24 th 2020	Administering the treatment and post-test

B. Population, Sample and Sampling

1. Population

A population according to Ary (2002 : 162) is all members of any well defined class of people, events, or object. It means that the population is a group of subjects, it can be person or things, to whom or which the findings of the research are to be applied.

In according to the topic of the research, the population is the whole students of the second grade students of SMPN 1 Tulungagung in the academic year 2019 – 2020 that consist of 448 students of 14 class in Eight class comprised 8A – 8N.

2. Sample

Selecting sample is very important step in conducting a research. According to Ary (2010 : 149) the small group that is observed is called a sample and the larger group about which the generalization is made is called a population. A sample is a portion of a population. It means that a good sample must represent the entire populations as good as possible, so that the generalization of the sample as true as population.

In this research the researcher select 1 class it is 8 A class, the reason because that class is suitable as subject of research. In addition, English teacher who handles 8B suggests to take that class too as subject of sample to be researched by some reasons :

1. This class is taught by recount text.
2. The class is cooperative enough
3. The characteristic of the students has assumed as homogeneous in writing, means not to good and not to bad.

Table 3.3 Sample of Research

Sample of 8B Class		Total Particiants
Male	Female	
16	21	37 Participants

3. Sampling

The researcher used purposive sampling technique. According to Cohen et al (2007), purposive sampling technique is satisfactory to specific need. In this

research, the researcher chooses A class because of the researcher's need that will be suitable for the research. The teacher chooses this class to give the treatment because this class was a superior class in academic, but low in writing ability. Sampling is a process selecting unit from population. According to Frankel and Wallen (2009 : 90), sampling is a process of selecting sample who will participate in this research. While, Ary et al (2010 : 149) stated that sampling is indispensable to researcher.

C. Reserch Instrument

Research instrument refers to the instrument or collect the data. Instrument which is used by the researcher was writing test or essay test. The students were given two kind of tests. The first test was pre test and second test was post test. Both of the tests were recount text as the level of students in their grade or level and by considering with core competence and also basic competence. The topic chosen in every tests were different to avoid bias as they can remember on the previous topic given.

To know the result of tests, the researcher used scoring rubric. The aspects of scoring are content, organization, vocabulary, grammar, and mechanics. Those aspects has been matched with writing recount text.

D. Validity and Reliability Testing

Validity and reliability of instrument are integral parts in conducting a study since the instrument which will be used must be valid and reliable before using it to collect the data. In this research the researcher ensured that the instrument (test) was valid and reliable by doing validity and reliability testing.

1. Validity

Ary et al (2010 : 225) defines validity as the extent to which an instrument measured what it claimed to measure. In other words, validity is measuring what it is designed to be measured. In language testing, Brown (2004) defines validity as the extent to which inference made from assessment results are appropriate, meaningful, and useful in terms of the purpose of assessment. The measure whether the test has a good validity, the researcher analyzed the test from content validity, face validity and construct validity.

a. Content Validity

A test is said to have content validity if its contents constitute a representative sample of language skills, structure, etc being tested. In order to judge whether or not the test has content validity, we need a specification of the skills or structure being tested. A comparison of test specification and test content is basic for judgment for content validity. Content validity is validity in terms of the contents of the test, the researcher gave the writing test to measure writing ability in recount text, then the researcher assesses the result of the students using scoring rubric. The content validity in this research can be shown as below :

Table 3.4 Main Competence and Basic Competence in Curriculum of 2013

Core Competence	Basic Competence
3 Understanding, implementing, analyzing factual, conceptual, and procedural knowledge based on the curiosity towards science, technology, art, culture, and humanity with the knowledge of humanism, nationalism, and civilization related to the cause of phenomena of events, and	a. Analyzing social function, text structure, and language features in recount text related to the simple experience and events according to its content.

implementing the procedural knowledge in a specific field according to the skill and interest to overcome the problem.	
4. Analyzing, thinking, and performing in both concrete and abstract field related to the development of what has been learnt in school individually, and being able to use the method based on the theory in science.	4.6 Composing simple written and spoken recount text about activity and event by concerning on the social function, text structure, and language features correctly according to its context.

b. Construct Validity

Construct validity is validity which show how far the tests are suitable with the theory that becomes a foundation on composing those tests. According to Johnson (2001 : 303) construct validity deals with the relationship between a test and a particular view of language and language learning. In the test, the researcher asked the students to answer the essay test based on recount text. The aspects of writing recount text guides to create a suitable instrument before being tested. The composing of theory refers to generic structure language features, and social function of writing recount text. Therefore, this is valid in term of construct validity. First it is about generic structure which is consists of orientation, the writer identifies generally about something happened, where the events took place and when it happend. Second is language features which is consists of focusing on specific participants, use of simple past tense, action and thinking or feeling verbs, use of temporal sequence, focus on specific participant, use the conjunctions and action verbs. Third is social function which presents the purpose of making recount text by stating recount text is to describe past experiences by retelling events. To know the result of the tests, the researcher used scoring rubric.

c. Face Validity

A test is said to have face validity if it measures what is intended to be measured. 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. The researcher used face validity by consulting with the advisor.

The pre-test and post-test is essay form, in the test paper there are some instructions to help the students in order to make a writing. In test paper written the instruction to use simple past tense, proper noun, action verb and conjunction. In the under of instruction, there are worksheet to write their story.

5. Reliability

Reliability show whether an instrument is reliable or not and can be used as a device to collect the data with the stability of the test score. According to Howit and Cramer (2002 : 28) reliability is the extent to which the measure will give the same response under similar circumstances. Ary et al (2010: 236) also defines reliability as the degree of consistency with an instrument measures whatever it is measuring. Thus, it can be said that a reliable test is consistent and dependable. In the other words, reliability is the consistency of the instrument in producing one the similar score on different testing occasion or with different raters.

To make sure the instrument (test) is reliable, the researcher conducted a try out for the test but in the different students before truly conducting this sample of research. The reasercher conducted the try out of the test in another school but with the same level of the students and there are 32 students in a try out test.

To find out the reliability of the score obtained either from the pre-test, the researcher calculated two scores from the two raters are correlated. The formula to find out the correlation coefficient is *Pearson Product-Moment*. Correlation measure how variables or rank orders are related. Correlation coefficient range in value from -1 and +1. A value of 0 indicates no linear relationship.

Here the result of tryout test after calculated using SPSS 16.0 , the result as follows :

Table 3.5 Reliability Testing

		Correlations	
		RATER1	RATER2
RATER1	Pearson Correlation	1	.842**
	Sig. (2-tailed)		.000
	N	32	32
RATER2	Pearson Correlation	.842**	1
	Sig. (2-tailed)	.000	
	N	32	32

** . Correlation is significant at the 0.01 level (2-tailed).

From the table above, it can be seen that the result of the correlation coefficient in try out test of pretest is 0.842 or close with 1, it means that there is perfect positive relationship between two variable. Based on the result above, the instrument is reliable to be tested.

In order to get the score of the students' result, the researcher have the scoring rubic, there are 5 assessment in the writing, there are content, organization, vocabulary, grammar and mechanics. In each part the score between 1 – 5, 1 is

lowest and 5 is highest, so the highest result is 25 and the lowest is 5. It shown in the appendix

E. Data Collecting Method

The data collection method serves the way how the researcher gets the data which is needed. To measure the effectiveness of using instagram application in recount text, the researcher uses instrument. The instruments are pre-test and post-test. It can be seem clearly below :

1. Pre-Test

Pre-test is given to the students to know their achievement in writing recount text before being taught by using instagram application.. A pre-test provided a measure on some attribute or characteristic that you asses for participants in an experimental before they receive treatment (Creswell : 2003). The form of pre-test is essay

2. Treatment

After administering the pre-test, the researcher gave the students treatment. The researcher shared the material about recount text and the introduction of using instagram application. Next, the teacher asked to the students to make recount text based on the picture uploaded on instagram. After that, the teacher reviewed the material and asked the students to make recount text based on topic given. Teaching Instagram consisted of some steps. The steps in teaching students' writing ability through Instagram as teaching media are as following :

- a. The researcher started the lesson by greeting and praying. After that, checked the students' attendance list. The researcher explained the learning goal. The first step, the researcher explained in general about

learning recount text through instagram application, how to use Instagram, features available in Instagram, how to apply this media in the Learning Process, how to make Instagram classroom, etc.

- b. The researcher explained about the materials that would be discussed. Learning process in recount text beginning with observing process. The teacher gave the topic that match by materials of recount text.
- c. After that, the researcher asked them to make a recount text based on the topic that will be uploaded on Instagram.
- d. After finishing up drafting, the writing must be checked by the researcher and give some feedback about generally errors by using Instagram application too that have been done by the students based on their writing.
- e. The students rewrite the writing based on correction by the researcher.
- f. In the next meeting, the researcher showed their phoos that had been uploaded before and gave the correction in the class to make sure they had been understood.
- g. For the next assignment, the students should make a recount text based on their own topic and upload them on Instagram in specified time.
- h. After they have been done to upload the picture and also the recount text, not based on the previous feed back, but the feed back will discuss in the classroom and the students should tell the story in front of the class.
- i. That the students rewrite based on correction by the researcher in the classroom.

3. Post-Test

Post test is done after the student get treatments is taught by using instagram application in teaching recount text. From the score of this test, the researcher is intended to find out the effectiveness of using instagram application in teaching recount text. The form of post-test is essay, form of post test is mostly the same with the pre-test, but different in the topic. The number of students who got post-test was completely 37 students. After finishing the test or students' work, the researcher calculate the score of post-test. The result of the scoring then is compared with pre-test.

F. Data Analysis

Before analyzing the significant difference between students taught after using instagram media and without taught instagram media, the data should be normal distribution. The researcher conducted normality testing in order to know the data computation were normal distribution. After the data stated normal by the measure on the SPSS, the next testing is T-test, T-test used in order to know is ther any significant correlation between students' taught using instagram application and without instagram application.

1. Normality Testing

Normality testing used in order to know whether the distribution of test was in normal distribution or not. The normality data was important because the data could be considered to represent the population when it was normal distribution.

In this research the researcher used SPSS 16.0 to measure the normality testing. *One Sample Kolmogorov – Sminorv* method by the value of significant (α) = 0.05. basic decision making normality testing were as follows :

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

2. Paired Sample T-test

Data analysis is a technique to analyze and identify the data that used to know the result. Then, the researcher uses a test to collect the data. The score of the data will be analyzed by using statistical instrument (SPSS) especially using t-test to know the effectiveness.

The data is needed in this research to know before and after being taught by using instagram application as a teaching media. In addition to analyze data the researcher need to count mean and try out to find of the mean and standard deviation.

After calculating standard of deviation, the writer find out the significant difference of the student's result of students' mastery of writing recount text using instagram application as a teaching media of the second grade at junior high school before and after being taught by instagram application. After getting the students' score, then determine the criteria of the students by the final result.

There are some steps to analyze the data in SPSS. Firstly, the researcher input the data in SPSS to know frequency of pre-test and post-test. The researcher find the mean, median, mode, and standars deviation by using this application.

Then, from comparing the data, the researcher knows the pair simple statistics and finally the researcher find pairs sample correlation from two-tail. After knowing the result of two-tail, the researcher gives the result whether or not the treatment by using Instagram application in teaching writing recount text is effective.