

## CHAPTER III

### RESEARCH METODOLOGY

This chapter presents the research methods used in research. It consists of research design, the variable of the research, research setting, population and sample, research instruments, treatment procedures, data collection methods, and data analysis.

#### 3.1 Research Design

In conducting this research, the researcher applied a quasi-experimental design because the researcher cannot choose the class by herself. The class was determined by the English teacher of SMA Negeri 2 Kediri. In quasi-experiment, the formulation of the problem must contain a causal or causal relationship between variables that have been found when formulating the background (Darmawan, 2016). Researchers used a quasi-experimental design to find out what would happen to the research subjects after applying the media as a treatment. In this research, the researcher would compare the two groups. The first group would be the experimental group and the second group as the control group. Both of the groups got a pretest and posttest.

**Table 3.1 Research Design**

Group	Pretest	Treatment	Posttest
<b>Experimental Group</b>	Pre-test	Instagram Media	Post-test
<b>Control Group</b>	Pre-test	Power Point Picture	Post-test

In the learning and teaching process, the topics of the two groups were the same. In the experimental group, students were taught by using Instagram while the control group was taught using powerpoint. After got the treatment, the two

groups were given a post-test to know the effectiveness of using Instagram in learning to write using Instagram and powerpoint.

### **3.2 Variable of the Research**

In this research, researchers used two kinds of variables, there were Independent and the dependent variable. The manipulated variable was called the experimental treatment or the independent variable. The variable that was observed and measured is called the dependent variable (Ary et al., 2014).

1. Independent variable (X): Instagram
2. Dependent variable (Y): Score of writing

### **3.3 Research Setting**

#### **3.3.1 Place of the Research**

This research was conducted at the senior high school of SMA Negeri 2 Kediri in the academic year 2020/2021. There were tenth-grade students.

#### **3.3.2 Time of Research**

The research was conducted on tenth-grade senior high school students in the academic year of 2020/2021.

### **3.4 Population and Sample**

The populations of this research were all students of the tenth-grade senior high school at SMA Negeri 2 Kediri in the academic year 2020/2021. The class was divided into MIPA and IPS classes. The researcher chose two classes that were investigated in this research. There were classes X-MIPA 7 and X-MIPA 6 which can be called the experimental group and control groups.

The researcher chooses those class because it can represent other classes in the tenth grade as a population. The researcher used class X-MIPA 7 as a class the experimental group was taught by using Instagram, and the class X-MIPA 6 as a control group which was taught by using a powerpoint as a learning media. Both classes consist of students at a low level in writing skills. It can be known from the statement of the English teacher.

### **3.5 Research Instrument**

The research instrument was a research data collection tool. The instrument used in this test was a measuring tool that most widely used in quantitative educational research (Ary et al., 2014). It influences the data that would gotten. The researcher must choose the appropriate instruments to obtain valid data needed. In this research, researchers used a test consisting of pre-test and post-test as research instruments.

#### **3.5.1 Test**

Test was a set of tool procedure that given by the researcher as the teacher to the subject of the research to know their skill related to the skill that was investigated. In this research, there were pre-test and post-test. Pre-test was given at the beginning of the research to know the students' writing skill before giving the treatment. While post-test was given at the end of the research, it was after giving the treatment in the writing learning process. Based on the tests, the researcher can know the students' writing skill before and after giving treatment. Further, she can know the effectiveness of the media that was applied, it was Instagram.

**a. Pre-test**

The first instrument to take the data was giving pre-test to the experimental group and the control groups. Pre-test was given at the beginning of the research to know the students' writing skills before giving treatment. The pre-test form was a writing test. It can be seen in appendix 2 the instruction of the Pre-test and Post-test. The students can freely write a paragraph recount text based on their experiences. It was consisting of orientation, event, and conclusion. They must be doing their test individually.

**b. Post-test**

After giving treatment based on the lesson plan class activity of the K-13 curriculum were consisted of core competencies, basic competencies and indicators of competency achievement, learning objectives, learning media, learning resources, learning steps, and assessment. The researcher would give a post-test to both experimental and control groups. It can be seen in appendix 2 the instruction of the Pre-test and Post-test. The purpose was to know the students' writing skills after giving the treatment and further to know whether the media applied was effective or not. The form was also a writing test. The students cannot choose the topic freely because, the topic was chosen by the researcher. The paragraph consists of orientation, events, and conclusion.

**c. The scoring rubric**

Assessment was a popular term that sometimes misunderstood in current educational practice. Analytical assessment has five main elements that will help draw the author's attention to the areas of improvement needed. There were two

raters in scoring the test. In this case, the researcher is the rater 1 and lecturer STKIP Insan Madani Airmolek as the rater 2. The scoring rubric of writing by (Brown, 2004). For scoring the students rater 2 also used table scoring rubric same as scoring rubric rater 1.

**Table 3.2 The Scoring Rubric**

<b>Aspects</b>	<b>Score</b>	<b>Explanation</b>
<b>Organization : Introduction, body, and conclusion</b>	20-18	Appropriate title, effective introductory paragraph, the topic is stated, leads to the body, transitional expressions used; arrangement of material shows plan (could be outlined by the reader); supporting evidence given for generalizations; conclusion logical and complete.
	17-15	Adequate title, introduction, and conclusion; a body of the essay is acceptable, but some evidence may be lacking, some ideas are not fully developed; the sequence is logical but transactional expression may be absent or misused.
	14-12	Mediocre or scant introduction or conclusion; problem with the order of ideas in body; the generalization may not be fully supported by the evidence given; the problems of organization interfere.
	11-6	Shaky or minimally recognizable introduction; the organization can barely be seen; severe problems with ordering ideas; lack of supporting evidence; conclusion weak or illogical; inadequate effort at organization
	5-1	Absence of introduction or conclusion; no apparent organization of body; severe lack of supporting evidence; the writer has not made any effort to organize the composition (could not be outlined by the reader).
<b>Content</b>	20-18	Easy addresses the assigned topic; the ideas are concrete and thoroughly developed; no extraneous material; essay reflects thought.
	17-15	Easily address the issues but misses some points; ideas could be more fully developed; some extraneous materials are present.
	14-12	Development of ideas not complete or essay is somewhat off the topic; paragraphs are not divided exactly right.
	11-6	Ideas complete; essay does not reflect careful thinking or was hurried written; inadequate effort in the area of content.
	5-1	The essay is completely inadequate, with no apparent effort to consider the topic carefully.

<b>Grammar</b>	20-18	Native-like fluency in English grammar; correct use of relative clauses, prepositions, modals, articles, verbs, and tense sequencing; no fragments or run-on sentences.
	17-15	Advanced proficiency in English grammar; some grammar problems do not influence communication; although the reader is aware of them; no fragments or run-on sentences.
	14-12	Ideas are getting through to the reader, but grammar problems are apparent and have a negative effect on communication; run-on sentences and fragments present.
	11-6	Numerous serious grammar problems interfere with communication of the writers' ideas; grammar review of some areas clearly needed, difficult to read sentences.
	5-1	Severe grammar problems interfere greatly with the message; the reader cannot understand what the writer was trying to say; unintelligible sentence structure.
<b>Punctuation, Spelling, and Mechanics</b>	20-18	Correct use of English writing convention; left and right margins, all needed capital, paragraphs intended, punctuation and spelling; very neat.
	17-15	Some problems with writing conventions or punctuation; occasional spelling errors; left margin correct; paper is neat and legible.
	14-12	Uses general writing convention but has errors; spelling problems distract the reader; punctuation errors interfere with ideas.
	11-6	Serious problems with the format of paper; part of essay not legible; errors in sentence punctuation; unacceptable to adequate readers.
	5-1	Complete disregard for English writing convention; paper illegible; obvious capitals missing, no margins, and severe spelling problems.
<b>Style and quality of expression</b>	20-18	Precise vocabulary usage; use of parallel structures; concise; register well.
	17-15	Attempts variety; good vocabulary; not wordy; register OK; style fairly concise.
	14-12	Some vocabulary misused; lack awareness off-register; maybe too wordy.
	11-6	Poor expression of ideas; problems in vocabulary; lack variety of structure.
	5-1	Inappropriate use of vocabulary; no concepts of register or sentence variety.

<b>No.</b>	<b>Aspect</b>	<b>Skor</b>
1.	Organization :Introduction, body, and conclusion	20
2.	Content	20
3.	Grammar	20
4.	Punctuation, Spelling, and Mechanics	20
5.	Style and quality of expression	20
<b>Total Skor</b>		<b>100</b>

There were at least two raters in assessing the test. The aim was to avoid subjectivity in test assessments. In this study, rater 1 was a researcher and rater 2 was lecture STKIP Insan Madani Airmolek. After getting the test score, both of experimental and control group which including the pre-test and post-test from two raters, the researcher looked at the correlation of the test score based on rater 1 and 2. The aim is to know the reliability of the two raters. The researcher used Pearson Product Moment by using SPSS to know the correlation of the two raters. In measuring the reliability, the researcher used the interpretation of coefficient value (Rasyid, 2015).

### **3.6 Treatment Procedures**

This research used a quasi-experimental design. The researcher as the teacher applied some treatment procedures to the experimental and control group. The experimental group was taught by using Instagram and the control group was taught by using powerpoint.

**Table 3.3 Treatment Procedures**

Experimental Class	Control Class
Opening:	Opening:
<ul style="list-style-type: none"> <li>- Shared link <i>google meet</i></li> <li>- Greeting</li> <li>- Asking the students' condition</li> <li>- Checking the attendance list</li> </ul>	<ul style="list-style-type: none"> <li>- Shared link <i>google meet</i></li> <li>- Greeting</li> <li>- Asking the students' condition</li> <li>- Checking the attendance list</li> </ul>
<ul style="list-style-type: none"> <li>- The teacher gives an introduction about Instagram and ask the students to follow and join class account.</li> <li>- The teacher ask student to open class account in Instagram.</li> <li>- The teacher gives an introduction material about recount text in Instagram.</li> <li>- The teacher ask the student to identify the social function of the text based on picture posted in Instagram.</li> </ul>	<ul style="list-style-type: none"> <li>- The teacher open PowerPoint.</li> <li>- The teacher gives introduction material about the recount text.</li> <li>- The teacher gives the students an example of simple present tense.</li> <li>- The teacher ask the student to identify the social function based on picture in PowerPoint.</li> </ul>
<ul style="list-style-type: none"> <li>- The teacher gives final conclusion about the material that has been learning.</li> </ul>	<ul style="list-style-type: none"> <li>- The teacher gives final conclusion about the material that has been learning,</li> </ul>
Closing	Closing

The schedule of the activity done in this research can be seen in table 3.4 bellow.

**Table 3.4 The Schedule of Activity**

Activity	Experimental Group	Control Group
<b>Pre-Test</b>	March, 10 <sup>th</sup> 2021	March, 11 <sup>st</sup> 2021
<b>Treatment 1</b>	March, 17 <sup>th</sup> 2021	March, 18 <sup>th</sup> 2021
<b>Treatment 2</b>	March, 24 <sup>th</sup> 2021	March, 25 <sup>th</sup> 2021
<b>Treatment 3</b>	March, 31 <sup>st</sup> 2021	April, 01 <sup>st</sup> 2021
<b>Post-Test</b>	April, 07 <sup>th</sup> 2021	April, 08 <sup>th</sup> 2021

### 3.7 Data Collection Method

Data collection was an important aspect of the research. This was the way to collect data based on activities in research. In this research, the researcher collects data used pre-test and post-test. At the beginning of the research, a pre-test held which know the students' writing skills recount text before receiving treatment. The next post-test was held which aimed to know the students' writing

skills recount text after receiving treatment. There was significant difference in the students' scores on their pre-test and post-test or not. Further was to know Instagram was effective to teach writing or not.

The form of the test was a writing test. It was based on the topics that were provided or given by the teacher. Especially, the form of the test was the students' writing skill about recount text. The score was taken based on the aspect of organization, content, grammar, punctuation, and style and quality of expression. Data collection was taken during an online class with Synchronous learning. Synchronous learning was online or distance learning that takes place in real-time, with a defined class schedule and required login times. The researcher used google meet in synchronous learning.

### **3.8 Data analysis**

After collecting the data, the researcher analyzed it. It was the students' scores of the pre-test and post-test. The aim was to know the difference between students' score in the pre-test (before giving treatment) and post-test (after giving treatment). In this case, the data was analyzed using ANCOVA (Analysis of Covariance) by using the SPSS program version 21.0. Researchers used ANCOVA because it was a good tool that can help her to measure the writing skills of previous students and after giving treatment.

ANCOVA was an analytical technique that was useful for increasing the precision of an experiment because it controls the influence of another uncontrolled independent variable. It allows the researcher to adjust the average

post-test score to the dependent variable in each group to compensate for the initial difference in the pre-test value between the two groups.

a. Normality test

Normality test is a test that is carried with the aim of assessing the distribution of data in a group of data or variables, whether the data distribution is normally distributed or not.

b. Homogeneity test

A homogeneity test is a test that is done to know that two or more sample data groups come from a population that has the same variance (Homogenous) homogeneity test can be done by Levene test, fisher or Bartlett test (Sudjana, 2005).