CHAPTER III
RESEARCH METHOD

A. Research Design

There are many kinds of research design in conducting a research. In this research the researcher used experimental research because the data was obtained from the field of the research. The writer then analyzed statistically.

This study used experimental research. In other words, the experimental study could interpreted as the research methods used to find a specific treatment effect on controlled conditions.

The design of the experimental was taken from Sugiyono.

R (Experimental) O1 X O2

R (Control) O3 - O4

Where:

01 = Pre-test for experimental group

02 = Post-test for experimental group

03 = Pre-test for control group

04 = Post-test for control group

X = Treatment

From the design above, subject of the research was divided into an experimental group and control group in the first column. Then, the quality of subject was checked by pre-test in the second column. Next, the experimental treatment used Quipper in teaching learning process, and the control group without Quipper. The last is post-test, the result of post-test by technique statistically.

B. Research Variable

Based on Sudaryanto(2003), variables are divided into two types, namely independent variables, and dependent variables. The independent variable depends on the position that is separated from the influence of the dependent variable, while the dependent variable is the variable used by the independent variable. In this study, the independent variable is The Use of

Quipper School application, while the dependent variable is the students' writing ability in recount text.

C. **Population and sample**

1. Population

The population of this research the students at SMAN 5 Metro. In this study, researcher only took the population in the tenth class, amounting to five classes, namely X MIPA 1, X MIPA 2, X MIPA 3, X MIPA 4. Therefore, the population in the study consisted of 120 students from four classes.

2. Sample

The sample of the study is selected by clusture random sampling. According to Sugiyono (2012), cluster random sampling is a regional sampling technique used to determine the sample if the object to be studied is very board. The researcher used the procedure of lottery method. After that, there were two classes as sample, as experimental class and as the control class. The researcher took two class of the sixth grade namely X MIPA 2 and X MIPA 3, the sample consisted of 25 students.

D. **Research Instrument**

1. The Writing Test

There are two kinds of test used in this research, the writing test before the treatment is implemented (i.e. pre-test) and the writing test after the treatment is implemented (i.e. post-test). The pre-test is to analyze students' understanding about writing ability before being given treatment. The pre-test order before treatment to get data students' prior knowledge, while post-test give after treatment to get data progress use of quipper school application toward students writing ability in recount text. The type of pre-test and post-test used a test in the form of writing. In this test the students make a short recount text. Then, working on 10 questions that have been made by the teacher, and the last test is a post-test as an evaluation of how well students understand recount text writing ability through the use of the Quipper School application.

E. Validity and Reability

1. Validity

According to Sugiyono (2019), validity indicates the level of accuracy between the data that happened to the object and the data collected by the researcher. The validity test was conducted to determine whether the research instrument was valid or not. An instrument is said to be valid if the instrument can measure something accurately and provide information about the assessment of the variables that are measured appropriately.

a. if the value of $r_{count} > r_{table}$ value, then the statement item is declared valid.

b. if the value of $r_{count} < r_{table}$ value, then the statement item is declared invalid.

2. Reliability

According to Heaton(2008), reliability is a necessary characteristic of any good test: for it to be valid all, a test must first be reliable as a measuring instrument.

F. Data Collecting Technique

Collecting data in this research is a tests. The researcher use pre-test and post-test in the form of writing test. First, the pre-test will be conducted at the beginning is that students are required to make a short recount text. Then, explained material about recount text by the teacher, and the last test is a post-test as an evaluation of how well students understand recount text writing ability through the use of the Quipper School application.

In collecting the data, the researcher will use a systematical and standard procedure. A method of collecting in this research used writing test that contain a set of exercise or other instruments. The researcher used two kinds of test, pretest and posttest. The researcher subjected both pre-test and post-test as follows:

1. Pre-test

The researcher came to the class and told the students what they had to do. The pretest in writing ability the researcher asked the students to write paragraphs in recounttext. The aim of administering

pretest was to get initial information of the students before the experimental conducted.

2. Treatment

After doing the pre-test at the first meeting, the researcher gave the treatment twice to the students. In the second meeting, the researcher applied the treatment by displaying the Quipper School application and then introduced the application, how to use it and showed the facilities available in the application. Students are asked to understand the recount text material and its generic structure. The researcher gives a brief explanation of the students' recount text. Then, students are given instructions to work on several questions that have been provided by the researcher through the Quipper school application.

At the third meeting, the researcher review what the students had done and asked them to work on the questions that the researcher had given in the Quipper School application as a comparison with the previous assignment.

3. Post-test

The last method of data collection is done by post-test. The post-test is given to students after completing the assignment twice and is collected through the Quipper School application. Post-test in writing ability, the researcher did it after giving treatment in pre-experimental research or after teaching writing

G. Data Analysis Technique

Data analysis is the way data analyse by the researcher. In managing and analyzing the data collect, the researcher will apply quantitative data analysis so the researcher analyzed the data by using formula. The analysis used to find the significant difference of the students" writing recount text ability before and after used of using quipper school application as a media. The steps to analyze data as follows:

1. The test results examined and then score by using an assessment elements consisting of content, organization, vocabulary, grammar, and mechanic. Destager in Dahnianti (2018) reveated that there are five aspects evaluate in writing: they are content, organization, vocabulary,

grammar, and mechanic. The following table presents the five aspect of evaluating which were uses.

Table 3.1 Specification Aspect of Writing

No	Aspect of Writing	Criteria	Score
1	Content	The substance of the writing, the idea express	20
2	Organization	The form of content (coherence)	20
3	Vocabulary	The selection of word that suitable with the content.	20
4	Grammar	The employment of grammatical form and syntactic patterns	20
5	Mechanic	Mastery writing focus on spelling and punctuation	20

(Destager in Dahnianti 2018)

a. Content

Table 3.2 Specification Score of Content

Classification	Score	Criteria
Excellent	20	Information is very clear, the idea of the problem development very clearly, the development of the idea is perfect, very relevant to the problem, and thoroughly.
Very good	15-19	Clear, substantive information, the development of a complete idea, relevant to the problem and thoroughly.
Good	11-14	The information is clear but there is some confusion, good substance, the development of a complete idea, relevant to the problem, and thorough.
Fair	6-10	Information is almost enough, enough substance, thesis development is very limit, less relevant to the problem but not complete
Poor	<5	Information is very limit, no substance, no idea development, no problems.

(Destager in Dahnianti 2018)

b. Organization

Table 3.3 Specification of Organization

Classification	Score	Criteria
Excellent	20	Expression is very smooth, ideas are express very clearly, well order, logical, and coherence.
Very good	15-19	Expressions are very smooth, ideas are clearly express, well order, logical, and cohesive
Good	11-14	Expression smooth, expression expression less clear, arrange with almost good, logical sequence.
Fair	6-10	The expression is substandard, less organize, the main idea is invisible, the sequence is almost logical, and incomplete.
Poor	>5	Not communicative, chaotic ideas, sequences and problems are illogical.

(Destager in Dahnianti 2018)

c. Vocabulary

Table 3.4 Specification of Vocabulary

Classification	Score	Criteria
Excellent	20	Utilization of word potential is very precise, word choice and expression very precise, mastering word formation.
Very good	15-19	Utilization of word potential is very precise, choice of words and phrases appropriate, very controlling the formation of words.
Good	11-14	Utilization of word potential rather precisely, word choice and expression almost right, almost mastering the formation of words.
Fair	6-10	Utilization of the word good, choice of words and phrases are less precise.
Poor	>5	Utilization of word potential is very limit, vocabulary is low.

(Destager in Dahnianti 2018)

d. Grammar

Table 3.5 Specification of Grammar

Classification	Score	Criteria
Excellent	20	The employment of grammatical form and syntactic patterns
Very good	15-19	Complex and effective construction has only a few grammar and syntactic patterns of mastery.
Good	11-14	Construction is simple and effective, grammar error occurs but not disturbing.
Fair	6-10	There is a grammar error but not annoying.
Poor	>5	Slightly control syntactic rules, confusing meanings.

(Destager in Dahnianti 2018)

e. Mechanic

Table 3.6 Specification of Mechanic

Classification	Score	Criteria
Excellent	20	Mastering the entire writing.
Very good	15-19	Mastering the entire writing, there are only a few spelling errors.
Good	11-14	Sometimes spelling errors occur but they do not obscure meaning.
Fair	6-10	Often spelling errors, confusing meaning.
Poor	>5	Not mastering the rules of writing, there are many spelling errors, unreadable and unworthy of value.

(Destager in Dahnianti 2018)

From the basic standard above, the researcher used the standard score for the total value of the students" writing by calculating the standard score given, as follows:

a. Scores 20 is classify as excellent.

b. Scores 16-19 is classify as very good.

c. Scores 11-15 is classify as good.

d. Scores 6-10 is classifiy as fair.

e. Scores >5 is classify as poor.

Classifying the score of the students into following chriteria:

The mean score of the students is classified in to 5 levels as follows:

Table 3.7 Classification of Score

No	Classification	Score
1	Excellent	91 – 100
2	Very good	76 – 90
3	Good	61 – 75
4	Fair	51 – 60
5	Poor	Less than 50

(Depdikbud in Dahnianti 2018)

a. After all test results were obtained, then rate 10-100 value. Scores that had obtained then analyzed.

b. After each student's work was assessed then presented to find the grade average value.

c. Using SPSS (Statical Product and Service Solution) determined the students' value.

d. Calculating the mean score of the students' test by using SPSS.

e. Finding the improvement's percentage of students' writing achievement of utilizing quipper school application by using SPSS.

f. To find out the significant different between the pre-test and post-test by calculating the value of the test using SPSS.

g. Interpreting values to see the effectiveness of learning recount text writing by using quipper school application.