

CHAPTER III

RESEARCH METHOD

This chapter discussed the research design, setting of the research, population and sampling, variable of research, research instrument, data collecting technique, data collecting procedure, readability of the test, and data analysis technique.

A. Research Design

The research conducted is an experimental study in accordance with the title "The Influence of Storyjumper Website to Students' Writing Skill of Tenth Grade of SMKN Ngadirojo in Academic Year of 2021/2022". In this study, the approach used is a quantitative approach. According to Arifin (2020) quantitative research is research that is used to answer problems through careful measurement techniques on certain variables, so to produce conclusions that can be generalized, regardless of the context of time and situation and the type of data collected, especially quantitative data. This study used a quantitative approach because it examines the relationship between variables and looks for the influence between variables whose measurement of variables is in the form of numbers and data analysis is needed with statistical calculations.

The method that used in this research is an experimental with one group pre-test-post-test research design. According to Suryasubrata (2011), this one group pre-test-post-test design used one group of subjects.

Measurements were taken the data first, then given treatment for a certain period of time then measurements were taken a second time.

Table 3. 1 : Research Design

Pre-test	Treatment	Post-test
T ₁	X	T ₂

Detail:

T₁ : Pre-test to measure the average achievement of writing narrative text before being taught with storyjumper Website.

X : The teaching method uses the storyjumper Website media for a certain period of times.

T₂ : Post-test to measure the average writing achievement of Narrative text after using storyjumper Website

B. Setting of the Research

Setting of the research discussed the time of the research and place of the research.

1. Time of the Research

The research was done on 23th May 2022 until 30th May 2022. This research was conducted at 2rd semester in academic year of 2021/2022.

Research schedule as in the matrix below:

2. Sample

According to Arifin (2014) the sample is part of the population to be studied or it can also be said that the sample is a population in the form of a mini (mini population). In this study, researchers used probability sampling with cluster sampling technique. According to Sukardi (2013), this cluster sampling technique selects samples not based on individuals, but based on groups, regions, or groups of subjects that naturally come together. The cluster sampling technique was chosen because the sample to be taken for this study was a group of students who had been formed without the intervention of the researcher, meaning that the researcher used classes that had been formed at the school. Therefore, the sample taken in this study was 20 students from class X AKL 2 at SMKN Ngadirojo.

D. Variable of Research

Variable of research discussed the independent variable and dependent variable of this research

1. Independent Variable

The independent variable in this research is storyjumper website learning media that is symbolized by (X)

2. Dependent Variable

The dependent variable in this research is students' writing skill that is symbolized by (Y)

E. Research Instrument

Data collection instruments used in this study included essay test and questionnaire.

1. Essay Test

A test was a number of questions given by a person or a number of students to measure learning outcomes, especially cognitive learning outcomes with regard to mastery of teaching materials in accordance with educational and learning objectives Khulbania (2019). The main data in this research is the learning outcomes of students learning narrative texts. This research used an essay test for class XI AKL 1 SMKN Ngadirojo.

2. Questionnaire

In this study, the questionnaire was also an important instrument. The questionnaire that used questionnaire consisting of closed statements. Closed questionnaire was a questionnaire with a list of questions that have been equipped with answer choices. Questionnaires distributed to students as respondents and respondents answered them. Questionnaire used to determine student responses to the influence of using storyjumper learning media on students' writing skills. Questionnaire was also to find out the phenomena that occurred to students during learning.

Table 3.3 : Blueprint of Students' Response

No	Indicator	Total
1	Motivation and interest	5

2	Competence	4
5	Happiness	3
6	Self Confidence	3
Total		15

3. Interview sheet

In this study, interview sheets were used to express students' opinions as a supporter of the questionnaire. The interview sheet consists of several in-depth questions about the influence of using website storyjumper on students' writing skills.

F. Data Collecting Techniques

Data collection techniques in this study include the following steps:

1. Based on the essay test, the researcher collected data by giving an essay test to write narrative text. This research was conducted in one class. Students are given a pre-test by writing narrative text on the paper provided by the researcher then students will be given treatment using story jumpers and explanations of narrative text material. In the next stage, students were given a post-test by making a narrative text on the storyjumper website media at least 200 words in 90 minutes.

To analyse students' tests in writing Narrative Text, researcher focus on the items in the elements of writing. According to Heaton (1975) the elements of writing are content, organization, vocabulary,

grammar, and mechanics. In determining the score, the researcher used the criteria for writing elements as in appendix.

2. Based on the questionnaire instrument, researchers collected data to determine student responses after using the storyjumper website learning media to writing. Response questionnaires were given to students of X AKL 2 SMKN Ngadirojo after carrying out learning activities using the storyjumper website.
3. Based on the interview sheet, the researcher collected data to support the questionnaire and find out the students' responses to the effect of using the storyjumper website on students' writing skills. The researcher conducted interviews with students by giving some in-depth questions about the use of storyjumper website media on writing skills, especially writing narrative texts. In this case, the researcher recorded the students' answers using a smartphone.

G. Data Collection Procedure

The procedure of collection data was present chronologically pre-test, treatment, post-test, as follows:

1. Pre-Test

Before applying writing using the storyjumper website media or doing treatment, students were given a pre-test to find out their achievement in writing, the researcher asked students to write a narrative text with the theme "Fable" according to the students' wishes.

2. Treatment

After giving the pre-test, the students then treated by implementing the learning media storyjumper website. Some steps of treatments were:

- a. The researcher asked the students about the storyjumper site and explained to the students what is the storyjumper website?. Then the researcher explained how to create an account or how to login the storyjumper website account and then the researcher explained the features found on the storyjumper website.
- b. The researcher explained the material about narrative text. The researcher explained about the types of narrative text, generic structure, and language feature in narrative text. The researcher also gave an example of how to create a narrative text on the storyjumper website.
- c. The Students asked to make a narrative text on the storyjumper website with a “fairy tales” theme according to the type of narrative text that had been explained.

3. Post-test

After applying the treatment, the researcher gave a post-test to the students to obtained data, whether there was a difference in the students’ test results after being given treatment using storyjumper media or not.

H. Readability of the Test

Readability relates to the level of readability of a text. Readability did not concern letters one by one, but the whole text that has been arranged in one

component. Readability was a value that described how easily a piece of writing can be read and understood by readers. As easy as when writing something need to make sure that people can read and understand the writing without experiencing difficulties. This instrument distributed to non-sample. Respondents questioned whether the respondent's response or the measuring object to the test or instrument was good or consistent. The research instrument in the form of writing instructions for students is contained in Appendix.

I. Data Analysis Technique

Data analysis technique discussed the pre-requisite test, hypothetical test, and students' response test.

1. Pre-Requisite

Pre-requisite discussed the normality test and homogeneity test.

a. Normality Test

Normality test will be conducted to determine whether the data was normally distributed or not. In this research, the researcher used statistical computation by using SPSS (Statistic Package for Social Science). The normality test used was Kolmogorov Smirnov. The hypothesis for the normality tests are formulated as follows:

H_0 : The data are normally distributed

H_a : The data are not normal distributed

The criteria for acceptance or rejection of the normality test hypothesis were as follows:

H_0 is accepted if $\text{Sig} > \alpha = 0.05$

H_a is accepted if $\text{Sig} < \alpha = 0.05$

b. Homogeneity Test

According to Sudjana (2005) homogeneity test can be done by using the formula for the comparison of the largest variance with the smallest variances. The formula can be done with the following steps. In this research, the researcher used statistical computation by using SPSS (Statistical Package for Social Science). The homogeneity test used was Levene's test. The hypothesis for the normality tests are formulated as follows:

H_0 : The variances of the data are homogeneous

H_a : The variances of the data are not homogeneous

The criteria for acceptance or rejection of the homogeneity test hypothesis were as follows:

H_0 is accepted if $\text{Sig} > \alpha = 0.05$

H_a is accepted if $\text{Sig} < \alpha = 0.05$

2. Hypothetical Test

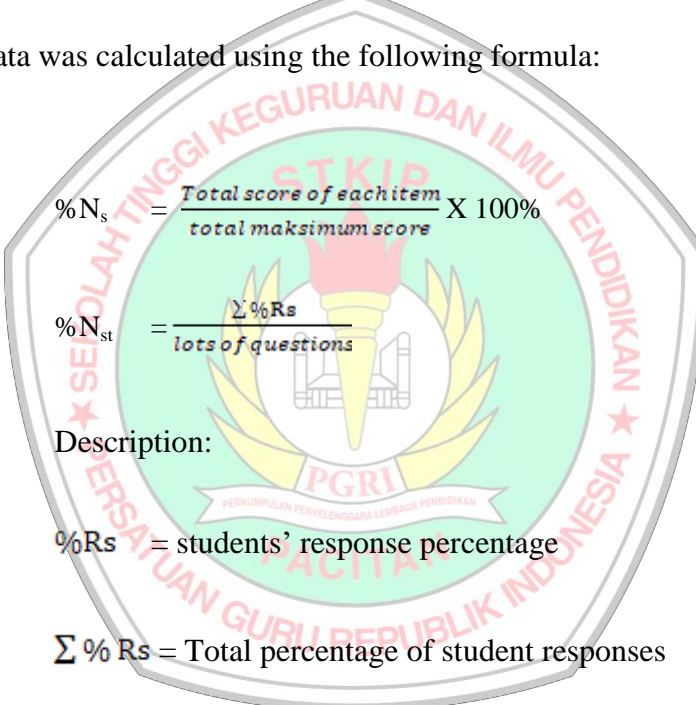
The data that has been collected will be analysed by using paired sample test in order to know the significance of the treatment effect. The hypothesis are:

H_a : There is a significant influence of using storyjumper website to students' writing ability of tenth grade at SMKN Ngadirojo in academic year 2021/2022

H_0 : There is no a significant influence of using storyjumper website to students' writing ability of tenth grade at SMKN Ngadirojo in academic year 2021/2022

3. Students' Response Test

The results of the student questionnaire answers that have been collected are calculated and analyzed to determine student responses regarding the storyjumper website media on students' writing skills. The data was calculated using the following formula:



$$\%N_s = \frac{\text{Total score of each item}}{\text{total maksimum score}} \times 100\%$$

$$\%N_{st} = \frac{\sum \%R_s}{\text{lots of questions}}$$

Description:

$\%R_s$ = students' response percentage

$\sum \%R_s$ = Total percentage of student responses

$\%N_{st}$ = Average percentage of student responses

Table 1 : The Category Students' Response

No	Category	Description
1	$75\% \leq N_{st} < 100\%$	Very Positive
2	$50\% \leq N_{st} < 75\%$	Positive
3	$25\% \leq N_{st} < 50\%$	Less Positive
4	$0\% \leq N_{st} < 25\%$	Not Positive

The student's response was said to be positive if the average percentage result regarding the effect of using story jumpers on students' writing skills was more or equal to 50%.

