

CHAPTER III

RESEARCH METHODOLOGY

In this part, the writer focuses on the research methodology. It describes the tools and instruments that help writers conduct research. This chapter includes research design, instrument, data collection, and data analysis techniques. Each of these will be described below:

A. Research Design

This research is a quantitative study that employs an experimental design. This experiment used a quasi-experimental method with two experimental and control groups. According to (Creswell J. W. 2012), the quasi-experimental method employs group assignments but not a random selection of individuals. He explains that this is due to the experiment's inability to artificially generate groups for the experiment.

The experimental group was taught using the Predicting strategy with Webtoon, whereas the control group was conducted using the teacher's typical discussion strategy. Furthermore, both groups were administered pre-test and post-tests to see if the Predicting Strategy with Webtoon affects the students' writing ability.

Table 3.1 Experimental and Control Group Design

Group	Pre-test	Treatment	Post-test
Experimental	✓	Predicting Strategy with Webtoon	✓
Control	✓	Freewriting strategy with Power Point	✓

B. Data Source

The second semester of 10th grade in SMAN 4 Kediri served as the data source for this study. This data is the outcome of a scoring test given to students. The researcher divided the participants into two groups in this study. The experimental group is class X IIS 1, and the control group is class X IIS 2. The experiment was conducted with non-random numbers, with class X IIS 1 as the experimental group and class X IIS 2 as the control group. Scores (pre-test and post-test) from the experimental and control classes were used to collect data.

C. Variable of the Research

A variable is a specific attribute or characteristic (Creswell J. W., 2012). This research that used a Webtoon-based Predicting Strategy in teaching students' writing comprehension has two variables, those variable are:

1. Independent variable (X)

(Creswell J. W., 2012) Define the independent variable as a measured variable showing math ability scores as determined by ability test results. Webtoon-based Predicting Strategy is the research's independent variable.

2. Dependent variable (Y)

A dependent variable is a property or quality that is impacted or is dependent on the independent variable (Creswell J. W., 2012). This study's dependent variable is students' writing ability.

D. Population and Sample

1. Population

The population of this research is all the second-semester of 10th-grade students of SMAN 4 KEDIRI in the academic year 2021/2022. The total number of students in the class is 350, divided into ten classes.

2. Sample

A sample is a group of individuals or objects the researcher wants to study to generalize the target population. (Creswell J. W., 2012). The sample of this research is the students of the tenth grade of SMAN 4 KEDIRI. In this study, the researcher sampled only two classes with 70 students, or two classes were used as a sample. The first class was an experimental class in which students were taught using the Webtoon-based Predicting Strategy. In contrast, the second class is a control class, in which students were taught using the teacher's free writing strategy.

E. Treatments

The researcher gave three times treatments to both groups. The treatment is given in meeting two until meeting 4. The experimental group got a webtoon-based predicting strategy from the researcher for their writing ability. Meanwhile, for the control group, the researcher gave a free-writing strategy.

The treatment procedure can be seen in table 3.2:

Table 3.2 Treatment Procedures

Activities	Experimental Class	Control Class
Pre-teaching	<ul style="list-style-type: none"> a) Greeting and checking students' attendance b) The researcher motivates the students c) The researcher explains the aims of the material and instructs the material. 	<ul style="list-style-type: none"> a) Greeting and checking students' attendance b) The researcher motivates the students a) The researcher explains the aims of the material and instructs the material.
While teaching	<ul style="list-style-type: none"> a) The researcher introduces Webtoon's story, which is easy to understand and appropriate for the senior high school level. b) The researcher shows the Webtoon's story in front of the class using a projector. c) The researcher asks what they can predict from the story. Students must predict from the episode's title, pictures, and clues and guess what the story will be about in predicting guide. d) The researcher gives predicting guide that needs to be answered. e) The researcher and students discuss the correct answer to predicting guide. f) The researcher asks students to re-write the story based on the 	<ul style="list-style-type: none"> a) The researcher communicates with the students and gives some prompting questions for the material to be taught. b) The researcher explains the recount text's function, structure, and figurative language c) The researcher asks students to read the example of recount text d) The researcher shows the picture on the power point e) The researcher asked students to make paragraphs based on picture showed f) The researcher asks students to write the paragraphs for thirty minutes without stopping

	answers in the prediction guide using the structure of recount text.	
Post-teaching	<ul style="list-style-type: none"> a) The researcher and students discuss it together. b) The researcher lets the students conclude the lesson c) The researcher closes the teaching and learning activities 	<ul style="list-style-type: none"> a) The researcher and students discuss it together b) The researcher lets the students conclude the lesson c) The researcher closes the teaching and learning activities

F. The Instrument of the Research

To obtain better data, the researcher employs an instrument. A research instrument is a tool or facility used to collect data and produce a better result; it might be comprehensive and systematic.

The researcher used a test as an instrument during this research. The research included not one but two different kinds of tests: a pre-test and a post-test. Before beginning their different treatments, the experimental and control groups of students are given a pre-test to gauge their current level of competence. Second, a post-test was given to the students to evaluate how well they could conform to the treatment. After completing the research and each of the three treatments received by the experimental group, a post-test was administered. Both groups were given the post-test in the same manner. Second, a post-treatment exam was given to the students to evaluate their current skill level after receiving therapy. After the study's conclusion and

after each of the three treatments given to the experimental group, a post-test was carried out. The post-test was also given to both of the study groups.

G. Data Collection

The research procedure is the steps carried out at the time of the research from beginning to end. It means starting from the preparation of experiments to data collection. The data collection:

1. Pre-test

Before beginning the therapy, the researcher provided a pre-test to one of the students in the class. Before starting treatment, the student's writing skill was evaluated with the pre-test.

The pre-test was given to the students at the first meeting before the experimental instruction to gauge the students' knowledge in composing recount text and before the technique was applied. This was done before the experimental instruction was given. Within a 60-minute time limit, students were required to create recount texts based on the subject that the instructor provided. The students should fill out the response form by answering the questions. The researcher then came to a conclusion based on the results of their tests.

2. Post-test

After participants in an experiment have been given treatment, they are given a post-test, which assesses certain qualities or characteristics of the individuals. This test compares the traditional technique of teaching writing recount text with the Predicting Strategy

using Webtoon to determine whether or not there is a substantial difference between the two. The students each had one hour to create a recount paragraph based on the subject provided by the instructor. To determine whether or not there is a significant influence on students' writing ability after being taught the Predicting strategy with Webtoon, the researcher used the post-test results to compare the scores the students received before and after receiving treatment.

The researcher could be scoring the students' writing recount text by the same standard of scoring. The first rater is a researcher, and the second rater is an English teacher at SMA Negeri 4 Kediri. The scoring rubric of the writing assessment can be seen in table 3.3. The criteria of the test can be seen in table 3.4.

Table 3.3 Scoring Rubric is adopted from Brown (2007)

Aspects	Score	Performance Description	Weighting
Content (C) 30% - Topic - Details	4	The topic is complete and clear, and the details relate to the topic.	3x
	3	The topic is complete and clear, but the details are almost related to the topic.	
	2	The topic is complete and clear, but the details are not related to the topic.	
	1	The topic is unclear, and the details are not related to the topic.	
Organization (O)	4	Identification is complete, and descriptions are arranged with proper connectives.	2x

20 % - Identification - Description	3	Identification is almost complete, and descriptions are arranged with proper connectives.	
	2	Identification is not complete, and descriptions are arranged with few misuse of connectives.	
	1	Identification is not complete, and descriptions are arranged with misuse connectives.	
Grammar (G) 20 %	4	Very few grammatical or agreement inaccuracies.	2x
	3	Few grammatical or agreement inaccuracies but no effect on meaning.	
	2	Numerous grammatical or agreement inaccuracies.	
	1	Frequent grammatical or agreement inaccuracies.	
Vocabulary (V) 15 %	4	Effective choice of words and word forms	1.5x
	3	Few misuse of vocabularies and word forms, but no change in the meaning.	
	2	Limited range of confusing words and word forms.	
	1	Very poor knowledge of words, word forms, and not understandable.	
Mechanics (M) 15 %	4	It uses correct spelling, punctuation, and capitalization.	1.5x
	3	It has occasional errors in spelling, punctuation, and capitalization.	

- Spelling	2	It has frequent errors in spelling, punctuation, and capitalization.	
- Punctuation - Capitalization	1	It is dominated by errors in spelling, punctuation, and capitalization.	

$$\text{Score: } \frac{3C + 2O + 2G + 1.5V + 1.5M}{40} \times 100$$

The research measured the score from pre-test and post-test by using the scoring system as shown in the table below :

Table 3.4 The Criteria of the Test

Score	Criteria
80 – 100	Excellent
66 – 79	Good
56 – 65	Fair
46 – 55	Bad
45 – 0	Worse

H. Data Analysis

The achievement in experimental and controlled classes on students' writing ability. The pre-test and post-test would analyze the score statically using the procedure ANCOVA (Analysis of Covariance) to deal with it. The researcher uses the SPSS program to count the result. The researcher wants to know the effectiveness of Predicting Strategy with Webtoon on the students' writing ability.

Analysis of Covariance (ANCOVA) is a statistical method for determining the effect of independent variables on the dependent variable and determining whether a linear model is valid (M Singh & Bajpai, 2013). ANCOVA is commonly used to determine treatment impacts, such as the

value and/or merit of programs, interventions, or organizational and social initiatives (Arvey et al., 1985).

According to Sunjoyo (2013), the significant value or criterion of accepted or rejected is as follows:

1. p-Value (sig) $> \alpha$ (5% or 0.05), it means that H_0 is accepted and H_a is rejected.
2. p-Value (sig) $< \alpha$ (5% or 0.05), it means H_0 is rejected and H_a is accepted