

CHAPTER III

RESEARCH METHODOLOGY

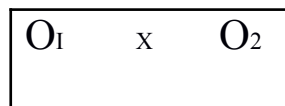
This chapter discussed the following points : Method of Research, Operational Definitions, Research Variables, Population and Sample, Technique for Collecting The Data, Validity and Realibility, Technique for Analyzing The Data, and Statistical Analysis

A. Method of The Research

This research used the experimental method. According to Hamdayana (2017) the experimental method is method of giving opportunities to individual students of groups to be trained to carry out a process or experiment. In this study the writer was choose pre-experiment design. Pre-experimental design is a design that includes only one group or class that is given pre and post tests. This one group pretest and posttest design was carried out on one group without a control or comparison group.

The writer did three steps that have been done in this study. Firstly, the writer gave the pre-test to students as the sample of research in the first meeting. Pre-test aimed at knowing the students' writing before the treatment. Secondly, the writer did a treatment as the process of implementing variables in the students to know students' improvements. The teatment by using Powtoon as the digital media was given by the writer to students. The last, the writer was give post-test

to students to know the effectiveness of the strategy that used. The research design can be presented as below :



(creswell,2012)

Where :

X = Experimental/ treatment

O_I = Pre-test

O₂ = Post-test

B. Operational Definitios

The title of this study is The effectiveness of using powtoon as the digital media in writing descriptive text, the following terms necessary to be define :

a. Writing

Writing is an intellectual activity of finding the ideas and thinking about the way to express and arrange them into a statement and paragraph that is clear to be understood by the people.

b. Powtoon

Powtoon is technology for creating exposures with animated features including, for handwriting animations, cartoon animations, and more colorful transition effects and simple timing.

c. Descriptive text

Descriptive text is a text which says what a person or thing is like. Its purpose is to describe and reveal a particular person, place, or thing.

C. Research Variables

According to Sugiyono (2019) Research Variable is an attribute or trait or value of a person, object or activity that has certain variations determined by the researcher to be studied and then conclusions drawn. Variable is divided into two types, namely dependent variable (Y) and Independent variable (X). Independent variable gives influence for another object. Dependent variable is a variable that is influenced by independent variable. In this research, the independent variable is Powtoon media, and dependent variable is students' writing.

D. Population and Sample

1. Population of the Research

According to Creswell (2018), states that the target population is a group of individuals (or groups of organizations) with some general characteristic that can be identified and studied by the writer. In this study, the population were all students of eighth grade of SMP Negeri 23 OKU. They consist of five classes, there were VIII A, VIII B, VIII C, VIII D, and VIII E. The specific of the population describes in the table below:

Table 1
The population of study

No	Classes	Number of Population
1.	VIII A	34
2.	VIII B	33
3.	VIII C	34
4.	VIII D	34
5.	VIII E	34
Total		169

Source : SMP Negeri 23 OKU

2. Sample of the Research

According to Siyoto and Sodik (2015), a Sample is part of the number and characteristics possessed by the population, or a small part of the population members taken according to certain procedures so that they can represent the population.

In this study, researcher used a purposive sampling technique. According to Creswell (2018), purposive sampling means that to learn or understand the essential phenomena, a researcher select individuals and sites intentionally. That mean purposive sampling is a sampling method in which the researcher selects a sample to be selected. Because in this research the researcher only use pre-experimental research. Where the reseacher only used one class to be respondents and collecting data. So, the reseacher chose class VIII B to be sample of the research consist of 33 students.

Table 2**Sample of the research**

NO	Class	Total
1	VIII B (Experiment class)	33

Source : SMP Negeri 23 OKU

E. Technique for Colleting the Data

Technique for collecting data in this study is the writing test. Essay is method of measuring of a person ability, knowledge, or performance in a given domain. In collecting the data, the researcher used essay test. The test were be administered twice pre-test and post-test.

1) Pre-test

Pre-test was given at the first time to the students to measure their ability in descriptive text before teaching using powtoon digital media

2) Post- test

Then, the post-test used to find out the students writing descriptive text after treatment.

To measure students effectiveness, the researcher was compare the result of pre-test and post-test using SPSS 26. The reason for compore the pre-test and post-test is to find out effective or not the use of powtoon media writing descriptive text after treatment.

To helps the researcher to check the instrument test the researcher was use 3 Raters to validate the instrument use in the study. The first rater is Natalinda Pangabean S,Pd as the English teacher of VIII B class at SMPN 23 OKU, the

second rater is Nesy Marantina, M.Pd as the English teacher at SMPN 23 OKU, and the last rater is the author self.

F. Validity and Reability of the Test

1. Validity of the test

Validity is an important key to effective research. Validity is defined as the extent to which a concept is accurately measured in quantitative study. It is defined as measuring research concept accurately. According to Azwar (2012) states that to have a content validity, the instruments are representative of some defined universe or domain of content. Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study. Content validity refers to the instrument must show that fairly and comprehensively cover the domain or item that is purpose cover.

Table 3
Specification Table of Test

Object of Test	test taker/ level	Indicator	topic	type of test
The students are able to write descriptive text through powtoon digital media	The test took the students of class VIII B SMPN 23 OKU	To know the students ability in writing descriptive text	The assessment of writing descriptive text is seen from several aspects, title, description of objects, animal or people.	Essay test.

2. Reliability

A second consideration is reliability. A reliable instrument is one that gives consistent results. If a researcher tested the math achievement of a group of individuals at two or more different times, for example, he or she should expect to obtain close to the same results each time. This consistency would give the writer confidence that the results actually represented the achievement of the individuals involved.

According Frankel and Wallen (2012, p. 112), reliability refers to the consistency of scores or answers from one administration of an instrument to another, and from one set of items to another. In this study, the writer used Reliability in content analysis. According Frankel and Wallen (2012, p. 503), reliability in content analysis is commonly checked by comparing the results of two independent scorers (categorizers).

Reliability in content analysis is essentially a variation of the equivalent-forms type of the reliability in that score which usually produced by two raters first rater is the scores were lined up in columns and a correlation coefficient is calculated between them. To have reliability of the test, the writer used rank order correlation. To know whether the test items were reliable or not, the writer concluded two hypotheses as follow:

- a. If the Kappa Point is more than 0,70 it mean that the items are reliable.
- b. If the Kappa Point is less than 0,70 it mean that the items are not reliable.

In this study, to see reliability of writing test, the writer used inter-rater technique. There are three raters evaluated students writing performance. They were called Rater I, Rater II and Rater III. The first and second rater is the teacher of SMP N 23 OKU and the third rater is researcher. To find out the reliability of the test, the writer tried out the test to the non sample students. It was groups of eight grade students in class A. The data of distribution score in try out could be seen in the table 4 below:

Table 4.

The Result of Try Out

NO	STUDENTS	SCORE														TOTAL	CATEGORY	
		C			G			V			F			INDIVIDUAL SCORE				
1.	A D A	4	3	2	3	3	2	2	3	3	2	3	2	68,7	75	71	71.5	Good
2.	A W	4	4	3	3	3	3	2	3	2	4	4	4	75	81	81	79	Good
3.	A	4	3	3	3	3	4	3	3	4	4	3	3	93,7	81	81	85	Very Good
4.	A J	3	3	2	3	3	3	4	2	2	3	3	3	68,7	75	62,5	68,7	Sufficient
5.	A R	3	3	3	3	3	3	4	3	3	3	3	3	75	81	75	77	Good
6.	BR Z	3	3	3	3	4	3	3	3	3	3	3	3	75	81	75	77	Good
7.	CB	4	3	2	3	3	2	2	3	3	2	3	2	68,7	75	71	71.5	Good
8.	DP	4	4	3	3	3	3	2	3	2	4	4	4	75	81	81	79	Good
9.	D	4	3	3	3	3	4	3	3	4	4	3	3	93,7	81	81	85	Very Good
10.	D N N	3	3	2	3	3	3	3	4	2	2	3	3	68,7	75	62,5	68,7	Sufficient
11.	E A	3	3	3	3	3	3	3	4	3	3	3	3	75	81	75	77	Good
12.	F R A	4	3	2	3	3	2	2	3	3	2	3	2	68,7	75	71	71.5	Good
13.	F A	4	4	3	3	3	3	2	3	2	4	4	4	75	81	81	79	Good
14.	IP	4	3	3	3	3	4	3	3	4	4	3	3	93,7	81	81	85	Very Good
15.	MA	3	3	3	3	4	3	3	3	3	3	3	3	75	81	75	77	Good
16.	MI	4	3	2	3	3	2	2	3	3	2	3	2	68,7	75	71	71.5	Good
17.	MS	4	4	3	3	3	3	2	3	2	4	4	4	75	81	81	79	Good
18.	PR	4	3	3	3	3	4	3	3	4	4	3	3	93,7	81	81	85	Very Good

19.	P A	3	3	2	3	3	3	3	3	4	2	2	3	3	68,7	75	62,5	68,7	Sufficient
20.	P W	3	3	3	3	3	3	3	3	4	3	3	3	3	75	81	75	77	Good
21.	R	3	3	3	3	4	3	3	3	3	3	3	3	3	75	81	75	77	Good
22.	R P	4	3	2	3	3	2	2	3	3	2	3	2	3	68,7	75	71	71,5	Good
23.	R L	4	4	3	3	3	3	3	2	3	2	4	4	3	75	81	81	79	Good
24.	R A	4	3	3	3	3	3	4	3	3	4	4	3	3	93,7	81	81	85	Very Good
25.	S L	3	3	2	3	3	3	3	3	4	2	2	3	3	68,7	75	62,5	68,7	Sufficient
26.	S D A	3	3	3	3	3	3	3	3	4	3	3	3	3	75	81	75	77	Good
27.	S Y	3	2	3	2	2	2	2	2	2	2	2	2	2	56	50	56	54	Poor
28.	U E M	3	3	3	1	2	2	1	2	2	1	2	2	2	50	56	37,5	47,8	Very Poor
29.	V	3	3	3	2	2	2	2	2	2	2	2	2	2	56	56	56	56	Poor
30.	Z A M	3	3	2	2	3	3	2	2	2	2	2	2	2	56	56	50	54	Very Poor
31.	A Q P	2	2	2	1	2	2	2	2	2	1	2	2	2	37,5	50	50	45,83	Very Poor
32.	A L	3	2	2	3	2	2	2	3	2	3	2	2	2	56	56	56	56	Poor
33.	D D	3	3	2	1	1	2	2	2	2	1	2	2	2	43,7	50	50	47,9	Very Poor
34.	D Z A	2	2	1	1	1	2	2	2	1	1	1	2	2	37,5	37,5	37,5	37,5	Very Poor
TOTAL															2380	2464	2333	2388	
MEAN															69,98	72,45	68,61	70,23	
MEDIAN															71,85	78	73	74	
MODE															75	81	81	77	
HIGHEST SCORE															93,7	81	81	85	
LOWEST SCORE															37,5	37,5	37,5	37,5	

Based on the result of the try out test, the writer found the student's mean score from all raters was 70,23, the student's median score from all raters was 74, the student's mode score from all raters was 77, the highest score from all raters was 85 and the lowest score from all raters was 37,5. The writer analyzed the students' writing test by using SPSS 26. The result calculated of the reliabilities of the test item by using SPSS 26 was shown on the table 5 below:

Table 5.
Reliability

	Value
Measure of Agreement Kappa	0.730
N of Valid Cases	34

Based on the students' score in try out, the writer found the criteria of the raters was reliable and it could be used as the instrument to collect the data of this research

G. Technique for Analyzing the Data

1. Scoring rubric writing assessment

Table 6
Scoring rubric writing assessment

Component of writing	Score	Level	Indicator
Content	4	Very Good	Very good in mastering the problem; the content is very solid complete and comprehensive; very appropriate with the problem and title.
	3	Good	Mastering the problem; the content is adequate; almost complete and comprehensive; appropriate with the problem and title, but is less detail.
	2	Fair	The problem mastery is limited; the content is not adequate enough; less

	1	Poor	complete. Does not master the problem; the content is not sufficient; not relevant with the title and problem; there is not enough material to evaluate.
Grammar	4	Very Good	Very effective in using simple and complex sentences; less errors in using grammar, sequence sentences, phrase and word form, preposition, etc.
	3	Good	Effective in using simple sentences, some errors in using grammar, sequence sentences, phrase and word form, preposition, etc.
	2	Fair	Error and difficult in using grammar, sequence sentences, phrase and word form, preposition, etc.
	1	Poor	Almost not mastering the grammar; full errors in grammar; cannot be understood; not enough material to evaluate.
Vocabulary	4	Very Good	Repertory of words is wide, the chosen and use of exact and effective words, mastery in word form and formation.
	3	Good	Repertory of words is enough, the chosen and use of words occasional not exactly, but the meaning not obscured.
	2	Fair	Repertory of words are limited, most errors in choosing words, the meaning is unclear and obscured.
	1	Poor	Repertory of words are very limited until can't

			communicate the meaning less informative to evaluate.
Function	4	Very Good	Comprehence to the punctuation,less error in spelling,punctuation,the use of capital letter, arrange of paragraph.
	3	Good	Occasional error in applying the rule, but not clear the main content and meaning.
	2	Fair	Most error in applying the rule of the spelling and writing, difficult to read the writing, main content and meaning are clear.
	1	Poor	Doesn't master the rule of the spelling and writing, full error in spelling, punctuation, the use of capital letter, arrange paragraph, difficult to read the writing, not enough information to evaluate.

Source : Cohen, A.D (2012)

Final Score : $\frac{\text{Score Obtained}}{\text{Max Score}} \times 100 \%$

Max Score

To make description of students score the researcher uses the score range and the criteria. It is shown on the following table :

Table 7
The Score Range Of Criteria

Score Range	Predicate
80-100	Very Good
70-79	Good
60-69	Sufficient
50-59	Poor
< 49	Very Poor

Source : (Sudijono 2012)

H. Statistical Analysis

The researcher was analyzed the data after getting the score of pre-test and post-test in experimental class. The reseacher used SPSS version 26 (paired sample T-test) together result of the investigation order to know the significance the treatment test. There are two hypothesis as the conclusion of this analysis steps :

(Ha) : It is significantly effective using powtoon as the digital media in writing to the eight grade students SMP Negeri 23 OKU

(Ho) : It is not significantly effective using powtoon as the digital media in writing to the eight grade students SMP Negeri 23 OKU