# CHAPTER III

## RESEARCH METHODS

In this chapter, researcher explains about the methodology of the research and data collection. The research also explain about the instrument while observing the object.

## A. Research Design

Most popular approaches in research are qualitative and quantitative. According to James Dean Brown and Rodgers, they stated that qualitative research approach is typically the label for non-numerical research and quantitative research approach is a numerical research, a data conversion is needed for this approach. In another analysis by Grotjahn, he stated that experimental or non-experimental is data collection method, qualitative or quantitative is type of data the resulted, and statistical or interpretative is type of analysis conducted on the data[1]. The researcher took an experimental research to design the study which analysis about what is the effect of using Launchora application in descriptive writing text. In conducting this research, the researcher applied an experimental research.

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[1] Brown, J. D., and Rodgers, T. S. *Doing Second Language Research.* New York: Oxford University Press. 2003, p. 15

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Experimental research is a scientific method. It is oriented to the future in the sense that the researcher is seeking to evaluate something new[2]. According to Donald Ary, an experimental design is the general plan for carrying out a study with an active independent variable. The design is important because it determines the study's internal validity, which is the ability to reach valid conclusions about the effect of the experimental treatment on the dependent variable[3]. In this research, quasi-experimental designs were considered because they allowed researcher to reach reasonable conclusions although not fully control. This meant that the researcher had the limit to control the population because of the teacher of English course suggested two classes to conduct this research. Quasi-experimental design involved an independent variable manipulation but the subject or the control group and the experimental group cannot be taken randomly. The classes were chosen by the teacher of English course, those were 8A and 8B. The control group in quasi-experimental design does not fully control the external variables that affect the implementation of the experiment[4]. In order to know whether using Launchora application in descriptive writing text is effective to teach English especially, the researcher compared two groups, the control group and the experimental group. Those

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[2] Singh, Y.K. *Fundamental of Research and Methodology and Statistic.* New Age International. 2006, p. 134

[3] Ary, D, Jacobs, C. L. & Sorensen, C. *Introduction to Research In Education: Eight Edition.* Canada: Wadsworth, Cengage Learning. 2006., p. 301

[4] _____*Introduction to Research In Education: Eight Edition.* Canada: Wadsworth, Cengage Learning. 2006., p. 316

groups were gaven pre-test and post-test for each group. The following chart was represented the design:

Table 3.1: Research Design

| Group | Pre-Test | Treatment | Post-Test |
|-------|----------|-----------|-----------|
| E | $T_1$ | X | $T_2$ |
| C | $T_1$ | - | $T_2$ |

Note:
E       : Experimental Group
C       : Control Group
$T_1$     : Pre-Test
$T_2$     : Post-Test
X       : Teaching writing through Launchora Application

**Variables of the Research**

A variable in research is refers to a person, place, thing or phenomenon that the researcher trying to measure[5]. There were two variables in this research. Those were:

1. Independent variable means the variable that is stable and unaffected by the other variables that the researcher trying to measure. The independent variable in this study is "using Launchora Application" in writing skill at SMP PGRI Wringinanom Gresik.

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[5] *Organizing Your Social Science Research Paper: Independent Variable and Dependent Variable.* University of Southern California. Retrieved from http://libguides.usc.edu/writingguide/variables accessed on January 31st 2017.

2. Dependent variable means the variable that depends on other factors that are measured. These variables are expected to change as a result of an experimental manipulation of the independent variable. The dependent variable of this study is "student's writing result score" in descriptive at SMP PGRI Wringinanom Gresik.

## B. Setting of the Research

The setting of this study was in eighth grade student of SMP PGRI Wringinanom Gresik. In eighth grade, there were 2 classes, 8A and 8B. The number of the students from both classes were 25 for 8A consisted of 13 female students and 12 male students, and 25 for 8B consisted of 15 female students and 10 male students. The researcher chose those classes by the suggestion of English course teacher. The researcher chose 8A to be the experimental group which was taught using Launchora Application and 8B as the control group which was taught using the conventional teaching strategy.

SMP PGRI Wringinanom Gresik is located on street Jl. Raya Wringinanom, Gresik. In addition, the time setting consisted of time allocation for pretest, treatment that was gaven to examine the treatment effect and post-test. This study was held in three times meeting. Each meeting had 2x40 duration time. Day and time was adjusted with the schedule of English subject in each class.

## C. Subject of the Research

### 1. Population

The population of this study was the eighth grade at SMP PGRI Wringinanom Gresik. The eighth grade was consisted of 50 students (two classes, 8A and 8B).

### 2. Sample

The researcher took two classes for this study. The sample of this study was 50 students from 8A and 8B, there were 25 students for 8A and 25 students for 8B. The researcher took two classes which had an equal English score as the sample, and then being divided into two groups (control group and experimental group) to examine the treatment effects. A class would be an experimental group and the other was controlled group. Researcher hoped that the chosen sample could be representative sample for all second year students in SMP PGRI Wringinanom Gresik in the use of Launchora Application to know the effect of Launchora Application in students' writing skill.

## D. Research Procedure

The researcher asked for permission to the head of SMP PGRI Wringinanom Gresik to conduct a research study at the school. After getting the permission from the headmaster of the school to conduct the research, the

researcher discussed the purpose of the research, the research schedule, and the choice of the class which would be the sample of the research. Then, the test was developed

### 1. Pre Test Development

After creating pre-test, the researcher conducted a validity test to make sure that the tests were meaningful, useful and proper with purpose of the test. There are 5 questions in Pre-Test and the last one was about Describing Something (see Appendix B). The four points of the question was to guide students to answer the question and made them easier to explain and describe the ideas. This test was through the process of the expert judgment before it was used. The test of pre-test used the materials that is taken from English in Focus for eighth grade Junior High School published by Pusat Perbukuan Depdiknas, which is based on KTSP Curriculum because the school was still using KTSP Curriculum.

### 2. Pre Test Administration

Before conducted the research, firstly researcher made research plan. Secondly the researcher made pre-test. The pre-test also already validity by the expert judgmental with the lecturer of writing course. After getting two classes, it was divided into two groups, one class as an experimental group was taught using Launchora Application in teaching writing and one class as

control group was taught using conventional. Then, the researcher gave pre-test to control group and experimental group. The purpose of this test was to know students descriptive writing scores. The result of *pre-test* between control group and experimental group used to identify the students descriptive writing scores before the treatment.

In Pre Test Administration, the teacher gives them an explanation about descriptive text. Then, the teacher gives them example of describing something. In this Pre-Test there are two classes that used to describe same topic. The topic was about describing people. In this pre-test, the teacher give the explanation first, served various kind of descriptive text, then give the instruction to the students to describe about People. The topic that used same between experimental class and control class. After giving the instruction, then the teacher take the paper of the describing people as the pre-test. Then, teacher and the researcher take the data of pre-test from this activity.

3. **Scoring of Pre Test**

The result from pre-test was scored based on Cohen rubrics. Detailed about Cohen Rubrics (See Page 44)

4. **Treatment**

After giving the pre-test for both control group and experimental group, experiment implementation was held by giving treatment through

Launchora Application. Launchora Application was gaven to A class or experimental group and B class or the control group was taught using conventional media.

a. *Experimental Class*

-*Meeting 1*

In the first meeting at Experimental Class researcher introduce about the topic that used in the first meeting. The topic that used at the first meeting was about Recreation Place. First, the researcher served the picture in the power point presentation. Then, researcher divided the students into several groups. Every group consists of some students. They work together to mention what are the things that they can find on the picture that served in the power point presentation. Then, the researcher explains and corrects the answer together with the students.

Second, the researcher served new picture to the students. The researcher distributed the picture in every group. After the researcher distribute the picture in every group. The researcher gave the explanation to the students to find what are the things that they can found on the picture. After all of the students already found the things. Then, the teacher gave explanation how to describe something using picture. Researcher also gave the explanation about simple present tense because some of the students are forgotten with the formulas to make sentence using simple present tense.

Next, the researcher wants them to make descriptive text with their group based on the things that they were found at the picture. After they made the descriptive text, there are two students that are the delegation from each group that presented their work in front of the class. Student 1 is writing the descriptive text in the white board and the Student 2 is present their work by read aloud in front of the class. Then, researcher gave the feedback in every group.

In the end of the meeting, the researcher gave the explanation about Launchora Application, how to login and how to register on it. Every student in experimental class should be login and follow the account of the researcher. It made the researcher easy to check the student's work and their assignment that submitted in Lauchora application. The researcher also made a whatsapp group that consist of the member of experimental class. The researcher distributed the instruction, the material, and the video to support the learning process from whatsapp group.

-*Meeting 2*

In the second meeting, before the classes start the researcher gave the topic in the night before meeting through whatsapp group. The researcher also shared video that related with the topic in the second meeting. In the second meeting the researcher served the picture through power point presentation. The topic in the second meeting was about Indonesian Culture.

The researcher served two pictures on it. The first picture was about Bali Dance, and the second picture was about Borobudur Temple. Those pictures were related with Indonesian Culture. The teaching and learning process were mostly same with the first meeting. Teacher divided students into several groups. Then, researcher gave the instruction to the students to work together with their group. Although they were work in a group, they should white the result one by one in their paper first. After they finished their work, they should present their work in front of the class. In the end of the meeting, the researcher gave the assignment to the students to write the descriptive text and submitted via Launchora Application.

-*Meeting 3*

In the third meeting, the researcher already gave the topic one night before the teaching and learning process through whatsapp. The researcher also provided video related with the topic at the third meeting. The topic in the third meeting was used Go to Shopping. The researcher served two pictures in the class used power point presentation. After that, researcher gave the explanation to the students to work in a group. The group was always changed in every meeting. After the students finished their work, they presented their work in front of the class. In the end of the class teacher

gave them assignment related with the third meeting then, they submitted their work through Launchora Application.

b.  *Control Class*

*-Meeting 1*

In the first meeting at the control class the researcher introduce about the topic that used for the teaching and learning process. The topic that used was about Recreation Place. In this class, the researcher was used the power point media to serve the picture to the students. After the students look at the power point media, the researcher gave instruction to the students to found the things in the picture. After they found the things in the picture, they did next assignment. The researcher distributes the picture in every student in the class. After all of the students at the class got the picture, they should describe what the things were and what the pictures were about. After they finished their work, they should present by read their text in front of the class. The researcher gave feedback to the student. In the end of the class, researcher gave the students an assignment to write descriptive text related with the topic in the class. Students submitted their assignment in the next meeting in a paper.

*-Meeting 2*

In the second meeting, the topic that used was about Indonesian Culture. The researcher served the picture through power point presentation.

The first picture was about Bali Dance, and the second picture was about Borobudur Temple. After the researcher gave the instruction to the students. Every student should write descriptive text based on the picture. After they finished their work, they present their work and collected their work. In the end of the class, the researcher gave the assignment to the students to find the picture and describe it. Then, the students collected the work in the next meeting in a paper.

*-Meeting 3*

In the third meeting, the topic at the control class was about Go to Shopping. In this topic, the researcher also provided pictures that served through power point presentation in the class. After they got the picture, the researcher gave the instruction to them to make a descriptive text based on the picture that already given by the researcher. After they finished their work, they should present their work in front of the class. In the end of the class the researcher gave the assignment to the students to find the picture, and then describe it and collected the work in the next meeting.

## 5. Post Test Development

After created post-test, the researcher conducted a validity test to make sure that the tests were meaningful, useful and proper with conclusion of the test. There are 5 questions in Post-Test and the last one was about Describing Something (See Appendix B). The four points of the question

was to guide students to answer the question and made them easier to explain and describe the ideas. This test was through the process of the expert judgment before it was used. The test of post-test used the materials that is taken from English in Focus for eighth grade Junior High School published by Pusat Perbukuan Depdiknas, which is based on KTSP Curriculum because the school was still using KTSP Curriculum.

### 6. Post Test Administration

Before conducted the research, firstly researcher made research plan. Secondly the researcher made post-test. The post-test also already validity by the expert judgmental with the lecturer of writing course. After getting two classes, it was divided into two groups, one class as an experimental group was taught using Launchora Application in teaching writing and one class as control group was taught using conventional. Then, the researcher gave post-test to control group and experimental group. The purpose of this test was to know students score for their descriptive writing scores. The result of *post-test* between control group and experimental group used to identify the students descriptive writing score after the treatment.

In this Post Test the topic that used was about Holiday Place. Both of Experimental Class and Control Class also used same topic. Same topic chosen to make same criteria to the topic used although the media was different because the media of experimental class was Launchora Application

and another media for control class only conventional media. In this Post-Test the teacher take the result of Post-Test from the students. After took the Post-Test the teacher give score to the students worksheet as the score of Post-Test.

### 7. Scoring of Post-Test

The result from post-test used Cohen formulas to count the result from descriptive writing score (See Page 44). After the researcher used Cohen formulas of Rubric Descriptive text, the researcher used SPSS 16 to count the result of the data through four steps. They were Mean Score, Normality Test, Homogenity Test, and the last was Mann Whitney U test.

### E. Data Collection Technique

The technique of collecting the data was by conducting the test before (pre-test) and after (post-test) the treatment. The time for collecting data was five times. The activity that used was Pre Test at the first meeting, then doing the treatment in every class both of Experimental Class and Control Class. There was three times treatment that used in this research. Then, the last activity was Post Test.

The test was given before and after the treatment to measure the using of Launchora Application in students' descriptive writing scores. During the treatment, the researcher was done a class observation of experimental class. The

aim of this observation was to observe the implementation of Launchora Application. The class observation was divided into two parts. The first observation was finished on class teaching and learning process. The second observation was finished by the activity from the online class through Launchora Application.

## F. Instrument of the Research

Instrument is a tool which change a physical variable of measurement to a form of recording that is suitable. In order to measure the data, to have consistent meaning, it is general to employ a standard system of units by which measurement to be compared[6]. According to Ibnu Hadjar, instrument is measurer to get quantitative information about variant of variable characteristic objectively[7]. In this research, the researcher used pre-test and post-test as the instruments prepared to get the data.

This study, researcher used two types of test, those were pre-test and post-test. The pre-test was given before the treatment and the post-test was given after the treatment. Pre-test was given to measure students' descriptive writing scores before doing the treatment. Additionally, the post-test was given to measure student's descriptive writing scores after doing the treatment. In case, the

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[6] Hasman, R. J. *Characteristic of Instrument.* Massachusets Institute of Technology: CRC Press. 2000, p.1

[7] Hadjar, I. *Dasar-dasar Metodologi Penelitian Kwantitatif dalam Pendidikan (Basics of Quantitative Research Methodology in Education).* Jakarta: Raja Grafindo Persada, 1996, p. 60

researcher held the post-test to find out the validity and reliability. Both were discussed below:

1.  **The Validity of Test**

    According to Gronlund, cited by Brown, validity is a goal of assessment which is meaningful, useful and proper with the conclusion of the test. In this part, the researcher was use two validity; those were: a) content validity is a test where the test-taker perform the behavior which is measured by using the samples as a subject in inferences, b) construct validity is a large scale in validating standardized test of proficiency[8]. In this research, validity test was done by the expert judgment.

2.  **Scoring Rubrics for Descriptive Writing Skill**

    Different from analytic and holistic scoring, trait-based scoring focuses on whether or not each paper shows evidence of the particular trait or feature you want students to demonstrate in writing. Trait-based instruments are designed to clearly define the specific topic and genre features of the task being judged[9]. Therefore, the advantage of this approach is in focusing on specific aspects of instruction that most reflect the objectives being covered when the writing assignment given. Based on the theories above, the soring rubric applied in this thesis is as bellow.

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[8] Brown, H. D. *Language Assessment; Principles and Classroom.* California: Longman. 2003, p.22
[9] Hyland, K. *Second Language Writing*. (Cambridge: Cambridge University Press 2003), p.229

Table 3.2 Writing Descriptive Rubrics[10].

| Component of Writing | Scale | Indicators | Qualification |
|---|---|---|---|
| | 5 | Main ideas stated clearly and accurately, change of opinion very clear. | Excellent |
| | 4 | Main ideas stated fairly clearly and accurately, change of opinion relatively clear. | Good |
| Content | 3 | Main ideas stated somewhat unclear or innacurate, change of opinion statement somewhat weak. | Average |
| | 2 | Main ideas stated not clear or accurate, change of opinion statement weak. | Poor |
| | 1 | Main ideas stated not at all clear or accurate, change of opinion statement very weak. | Very Poor |
| | 5 | Well organized and perfectly coherent. | Excellent |
| Organization | 4 | Fairly well organized and generally coherent. | Good |
| | 3 | Loosely organized but main ideas clear, logical, but incomplete sequencing. | Average |

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[10] Cohen, A.D. *Assessing Language Ability in the Classroom, 2nd ed.* (Boston : Heinle and Heinle Publishers 1994), p. 328-329

| | 2 | Ideas disconnected, lacks logical sequencing. | Poor |
|---|---|---|---|
| | 1 | No organization, incoherent. | Very poor |
| Vocabulary | 5 | Very effective choice of words and use of idioms and word forms. | Excellent |
| | 4 | Effective choice of words and use of idioms and word forms. | Good |
| | 3 | Adequate choice of words but some misuse of vocabulary, idioms and word forms. | Average |
| | 2 | Limited range, confused use of words, idioms and word forms. | Poor |
| | 1 | Very limited range, very poor knowledge of words, idioms and word forms. | Very Poor |
| Grammar | 5 | No errors, full control of complex structure. | Excellent |
| | 4 | Almost no errors, good control of structure. | Good |
| | 3 | Some errors, fair control structure. | Average |
| | 2 | Many errors, poor control of structure. | Poor |
| | 1 | Dominated by errors, no control of structure. | Very poor |
| Mechanics | 5 | Mastery of spelling and punctuation. | Excellent |

| | 4 | Few errors in spelling and punctuation. | Good |
|---|---|---|---|
| | 3 | Fair number of spelling and punctuation errors. | Average |
| | 2 | Frequent errors in spelling and punctuation. | Poor |
| | 1 | No control over spelling and punctuation. | Very Poor |
| Score : ( C+O+V+G+M) x5) x 4 = Result Score | | | |

## G. Data Analysis Technique

In this study, data was obtained from research subject score to show whether teaching writing using Launchora Application was effective than teaching writing skill using conventional strategy.

### 1. Finding the Mean Score

To analyse the data, the researcher compared the score of both experimental and controlled group. It was useful to prove statistically whether there was any difference between the students' scores of the control group and the scores of the experimental group. In counting pre-test and post-test score result, the beginning step was arranging the score into a table

for both control group and experimental group and counting each average
score or *mean* from each classes[11].

## 2. Normality Test

Data that had been taken by the researcher was tested first to
determine the characteristic of the data. A type of data testing that was
carried for this research was normality test. This test used to find out
whether the data had a normal distribution or not.

If the data had normal distribution, it meant that the data been
representative of the population and the data can be calculated using
parametric statistic which usually using *Independent Sample T-test*. If the
data had no normal distribution, the data can be calculated using non-
parametric statistics which usually using *Mann Whitney U* test.

In this study, researcher used SPSS 16.0 to calculate the normality
test of the data. The researcher used *Shapiro-Wilk* test because the amount
sample was less or equal with 50 samples. *Shapiro-Wilk* test assessed
whether the data were normally distributed or not. If the significance value
is less than $\alpha = 0.05$, the data was not normally distributed, otherwise if the

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[11] Subana, Rahadi, M, & Sudrajat. *Statistik Pendidikan (Statistic in Education).* (Bandung: Pustaka
Setia. 2000), p. 131

significance value is more than α = 0.05, then the data is normally distributed[12].

### 3. Homogeneity Test

The test used to test whether the distribution of the data is homogeneous of not by comparing the two variances. The homogeneity was intended to test the equality of variance of dependent variable of this study. In this study, the researcher used *Levene's Test*, which is simply one-way analysis of variance on the absolute deviation of each score from the mean for the group[13]. If the significance value on the *Levene's* Test is more than α = 0.05, then the variance of the variables are homogeneous.

### 4. Test of Hypothesis

After found out the result of normality test and homogeneity test, the researcher calculated the data to test the hypothesis. When the data has normal distribution and homogeneous, the data calculates using *Independent Sample T-test*, but when the data has nor normal distribution although it is homogeneous, the *Independent Sample T-test* cannot be continued. For alternative calculation, the researcher was using it with *Mann Whitney U* test to find out the significance different of the data that has been collected

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[12] Carver, R. H & Nash, J.G. *Doing Data Analysis with SPSS Version 18. (*Boston: Brooks/Cole Cengage Learning. 2012). p. 140
[13] Cramer, Duncan. *Advanced Quantitative Data Analysis*. (Philadelphia: Open University Press.2003), p. 149

for the research. *Mann Whitney U* test is a non-parametric statistical technique. It can be used in place of a t-test for independent samples in cases where the values within the sample do not follow the normal or t-distribution but also when the distribution of values is unknown. The *Mann-Whitney U* is also used to test the null hypothesis, subject to both samples coming from the same basic set or having the same median value[14].

In doing the analysis of those tests above, such as finding the mean score, normality test, homogeneity test and hypothesis test, the researcher used SPSS 16.0 for Windows.

5.  **Data Interpretation.**

There are several steps before the researcher interpretation the data after the researcher got the data they are, Finding Mean Score, Normality Test, Homogeneity Test. Those steps are the way to interpret the data. The data interpretation that researcher used was Mann Whitney U Test. Mann Whitney U Test used because of the researcher already through the several steps that mention on it. The Mann Whitney U Test was used because after the researcher check the data from those steps, the match criteria to interpret the data was Mann Whitney U Test. Then the researcher interprets the data using the analysis of Mann Whitney U Test.

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[14] Milenovic, Zivorad M. *Application of Mann-Whitney U in Research of Professional Training of Primary School Teacher.* Metodicki obzori: Original Scientific Article vol. 6(1). 2010. p. 73