CHAPTER III
RESEARCH METHODOLOGY

A. Place and Time

This research is going to conduct in MA Mursyidatul Jannah. It is located in Pasirwalet, Pandeglang-Banten. The reason why the writer chooses the location is as follows: There is an interesting problem to be studied scientifically. And the writer is also quite familiar with the location. MA Mursyidatul Jannah is one of the formal educational institutions located in Pandeglang. It is an Islamic boarding School special for female. It is known by people around the school as good school, qualified, and also known that the students are good in English language learning.

The time will be spent for this research is around April to Mei 2018.

B. Research Design

For the method, the writer use experimental method. Experiments are generally conducted in order to test the strength of
relationships between variables.¹ According to Sugiyono, experimental method is research method that is used to search the effect of treatment, the effect of influencing variable toward the influenced variable.² As the title of this study “Developing students’ skill on writing descriptive text using biographical film”, it is suitable to use experimental method to know if biographical film is effective to use in developing students’ skill on writing descriptive text or not. The design of experimental method used in this research is pre-experimental. Pre-experimental has three designs: the one-shot case study, the one-group pre-test and post-test and the intact group designs.³ In this research, writer will use one-group pre-test and post-test design.

There will be one group students being treated in the experiment. The writer will use one group pretest-posttest. In which, there will be only one group going to be treated in this research. This research is done by giving pre-test, treatment, and post-test.

Figure 1: Research Design

In pre-test, writer will ask students to write a descriptive text without any treatment before. In treatment, writer will review or re-explain about descriptive text (if needed), the process of writing, and the steps of describing person. Then, writer will apply the medium of teaching that is Biographical Film. In post-test, writer will ask students to write a description about a figure in the film they watched.

C. Research Variables

As explained by Nunan and Baily that experiments are generally conducted in order to test the strength of relationship between variables, the variable doing the influencing is called the independent variable, while the one being influenced is called the dependent variable.\(^4\)

The variables of this research are biographical film, as the independent variable, and students’ skill on writing descriptive text, as the dependent variable.

<table>
<thead>
<tr>
<th>Independent variable (X)</th>
<th>Dependent variable (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biographical Film</td>
<td>Students’ Skill on Writing Descriptive Text</td>
</tr>
</tbody>
</table>

Figure 2: Research Variables

D. Population and Sample

Population is all cases, situation or individuals who share one or more characteristics. The population of this research is the students of class X MA Mursyidatul Jannah. Class X students of this school are 19 students.

Nunan states, “Sample is subset of individuals or cases from within a population”. The sample of this research is whole students of class X MA Mursyidatul Jannah, they are 19.

E. Instrument and Technique of Collecting Data

Tuckman, in Nunan and Baily book, state, “the term instrumentation refers to the measurement or observation procedures

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used during an experiment”. The instrument used for collecting data is test.

Test is a series of questions or exercises used to measure skills, knowledge, intelligences, abilities, or talent possessed by individual or group. Test is done before and after treatment, pretest and posttest. Pretest is to measure students’ skill on writing descriptive text before getting treatment and posttest is to measure students’ skill on writing descriptive text after getting treatment.

Kind of test used for collecting data is essay. The essay contains commands or instruction as follow; 1) the first instruction, students are asked to watch Ali film thoroughly, 2) the second instruction, after watching the film, students are asked to identify all about Ali such as the general information, the visible characteristic, and his life journey and personality, 3) the last instruction, students are asked to write a description about Ali.

In pre-test, writer will ask the students to write a descriptive text without any treatment before. Then, in post-test, students will be asked to write a descriptive about the figure on the film given in treatment.

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F. Technique of Analyzing Data

To analyse the data, the writer applies the following techniques:

1. Categorizing the collected data based on its categories, pre-test and post-test.
2. Scoring the student work sheet for pre-test and post-test.
3. Computing the students’ result score, then, inserting it to table of students’ scoring sheet for pre-test and post-test.

For analysing data, writer would like to use descriptive statistic. Nunan and Baily say that descriptive statistic describe the group in terms of the variables that have been measured or counted by using the measure of central tendency (mean, median and mode) and the measure of dispersion about the mean (range, standard deviation, and variance).⁸ As explained before that this research is using pre-experimental with one-group pre-test and post-test. The scores both pre-test and post-test are compared. The difference between the pre-test scores and the post-test scores is called the gain scores.⁹

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O₁: O₂

O₁: pre-test
O₂: post-test

Then, to prove the difference significance, the difference between pre-test and post-test is tested statistically using *correlated t*-test formula by Sugiyono\(^{10}\):

\[
t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n} + \frac{S_2^2}{n} - 2r \left( \frac{s_1}{\sqrt{n}} \right) \left( \frac{s_2}{\sqrt{n}} \right)}}
\]

\(\bar{X}_1\) = the average of pre-test score

\(\bar{X}_2\) = the average of post-test score

\(s_1\) = standard deviation of pre-test score

\(s_2\) = standard deviation of post-test score

\(S_1^2\) = variance of pre-test score

\(S_2^2\) = variance of post-test score

\(r\) = correlation between pre-test and post-test score

According to Nunan and Bailey, *correlated t-test* can be used for comparing two means, when there is just one group contributing two sets of data, as in the one-group pre-test post-test design.\(^{11}\)

\(^{10}\) Sugiyono, *Metode Penelitian Pendidikan*, 422.
G. Hypothesis

To find out whether there is significant different between the ability of first grade students of MA Mursyidatul Jannah in writing descriptive text before and after being taught by using biographical film, the writer formulates hypothesis testing as follow:

\[ H_0: \mu_1 \geq \mu_2 \]

The effectivity before using Biographical Film is greater than, or same with, after using Biographical Film. It means “there is no significant difference between students’ scores in writing descriptive text before and after being taught by using biographical film”.

\[ H_a: \mu_1 < \mu_2 \]

The effectivity before using Biographical Film is lower than after using Biographical Film. It means “there is significant difference between students’ scores in writing descriptive text before and after being taught by using biographical film”.

Where:

\[ \mu_1: \text{Students’ score on writing descriptive text skill before using Biographical Film (pre-test).} \]

\[ \mu_2: \text{Students’ score on writing descriptive text skill after using Biographical Film (post-test).} \]

\[ n_1, n_2: \text{Number of students in pre-test and post-test, respectively.} \]

\[ s_1, s_2: \text{Standard deviation of students’ scores in pre-test and post-test, respectively.} \]

\[ \bar{x}_1, \bar{x}_2: \text{Mean score of students’ scores in pre-test and post-test, respectively.} \]

\[ t: t\text{-test statistic} \]

\[ (1 - \alpha): \text{Significance level} \]

\[ c: \text{Critical value from t-distribution} \]

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μ2: Students’ score on writing descriptive text skill after using Biographical Film (post-test).

So, if students’ score on writing descriptive text skill before using Biographical Film is greater than, or same with, after using Biographical Film, the Null Hypothesis ($H_0$) is accepted and Alternative Hypothesis ($H_a$) is rejected. Thus, if students’ score on writing descriptive text skill before using Biographical Film is lower than after using Biographical Film, the Null Hypothesis ($H_0$) is rejected and Alternative Hypothesis ($H_a$) is accepted.

With probability 5% (0.05) for one tail test, the difference is significant if $t_{observation}$ or observed value is lower than $t_{table}$ or critical value ($p < 0.05$).

**H. Research Procedure**

In this research, writer will provide pre-test, treatment, and post-test for one group. Then, writer will analyze, interpret, and conclude the data result.

In general, the procedure of this research can be described as follows:
1. **Providing pre-test**

   In pre-test, teacher asks students to write a description about ‘Soekarno’ without any treatment before.

2. **Providing treatment**

   In treatment, teacher ask students to write a description about ‘Steve Jobs’ for the first treatment and about ‘Steve Wozniak’ for the second treatment, they are two of the characters in ‘Steve Jobs’ film.

   a. **Preparation**

      1) Preparing the lesson plan
      2) Preparing the material
      3) Preparing an example of descriptive text (to be analyzed by students)
      4) Preparing the Biographical Film ‘Steve Jobs film’ and LCD (as the medium of teaching)

   b. **Implementation**

      1) Teacher explains the material.
2) Teacher gives the example of descriptive text

3) Teacher asks the students to analyze two kind of text, the difference between the story and the tense used by both of text.

4) Teacher asks students to watch ‘Steve Jobs’ film. Here, the teacher use illustrated talk technique by following this procedure;
   a) Prepare the film will be shown
   b) Tell the story of the film by illustrating three or four scene
   c) Let the students watch the climatic point and the ending.

5) Teacher divides students into some groups to make a discussion and sharing about ‘Steve Jobs’ for the first treatment and about ‘Steve Wozniak’ for the second treatment, they are two of the characters in the film.

6) Teacher guide students to write a description about ‘Steve Jobs’ for the first treatment and about ‘Steve Wozniak’ for the second treatment, by reminding them the generic structure, the language feature and the steps of writing person description.
3. Providing post-test

In post-test, teacher asks students to write a description about Muhammed Ali, he is the main character in ‘Ali’ Film.

a. Preparation

1) Preparing the lesson plan,

2) Preparing the material,

3) Preparing the Biographical Film ‘Ali film’ and LCD (as the medium of teaching).

c. Implementation

1) Teacher divides a descriptive text about person and asks the students to decide the identification and the descriptions of the text in group.

2) Teacher asks students to watch ‘Ali’ film. Here, the teacher use illustrated talk technique by following this procedure;

a) Prepare the film will be shown

b) Tell the story of the film by illustrating three or four scene

c) Let the students watch the climatic point and the ending

3) After watching the film, the students are asked to make a discussion in group about;
- The general information,
- The visible characteristic and the statistical information,
- His life journey and personality.

Then, some of them are asked to share the information they got to the other students.

4) Before asking the students to write a description about Muhammad Ali, teacher reminds them the generic structure and the language feature of descriptive text, and the steps of describing person.

5) Teacher asks the students to write a description about Muhammad Ali individually.

4. Analyzing the data from pre-test and post-test

To analyse the data, the writer applies the following techniques:

a. Categorizing the collected data based on its categories, pre-test and post-test.

b. Scoring the student work sheet for pre-test and post-test.

c. Computing the students’ result score, then, inserting it to table of students’ scoring sheet for pre-test and post-test.

5. Drawing the interpretation based on the result of the test and making conclusion.