CHAPTER III

RESEARCH METHOD

A. Method of the Research

This research was an experimental research because the aim of this research was to find out the effectiveness of CSW (Catch, Speak, and Write) game for teaching descriptive writing. There are two groups in this research, they are experimental group and control group. Experimental group is the group which is given treatment by using CSW (Catch, Speak, and Write) game in teaching and learning process of writing descriptive text at junior high school. The control group is the group which is given a conventional technique that has been implemented in teaching and learning process.

According to Arikunto (2005: 207) there are two kinds of experimental method, they are true experiment/pure experiment and a quasi-experiment. A quasi-experiment is an empirical study used to estimate the causal impact of an intervention of its target population. Quasi-experimental research designs share many similarities with the traditional experimental design or randomized controlled trial, but they specifically lack the element of random assignment to treatment or control. Not different with true experiment, but in this experiment, the writer should compromise with the internal and external validity. In this experimental research, not all variable can be conditioned in same
conditions. Many factors contribute in the result of this research. This fact makes the writer minimize every single bias.

   Based on the fact above, this research belongs to quasi-experiment. The subject of this research is the students who have different background, family, and basic knowledge. These differences made this research compromise with any bias that can affect in this research. Knowing this fact, this research gives control of the bias as tight as possible.

   The design of this research is as follow:

   X: Q1......X…….Q2
   C: Q1…………...Q2

   Where:
   E: Experimental group
   C: Control group
   Q1: Pre-test
   Q2: Post test
   X: Treatment

   This research applied non-equivalent group design and need two classes for the experiment. Those classes were needed to compare the result of the research. By comparing between two classes, it would be known that the treatment is effective or not. The first was Experimental Class (E) and the other was Control Class (C). The next step was giving pre-test (Q1) for both of classes to know the students’ basic skill in writing. In pre-test stage the writer provided a simple task for the students
to make a simple of descriptive text. By using this test, it could be found some information about students’ basic knowledge.

After getting some data from those classes, the writer would give the treatment for experimental class. Treatment in this research was the implemented of CSW (Catch, Speak, and Write) game in teaching and learning process. The writer gave three times meeting for experimental class and contrast with the control class that it taught in usual ways. There was no special treatment or implementing any strategy or method in control class.

The material that had been learned by students is writing, especially writing descriptive text. This research had strong reason why this research chooses the material. The control class also got some material, but the way of teaching different with the experimental class. After giving the treatment for the experimental class, the writer gave post-test as the last step. Post-test itself containing as same as pre-test grade difficulty, but in different type but still had similarity.

B. Place and Time of the Research

1. Place of the Research

The research was conducted at SMP Negeri 1 Kutasari, located at district Kutasari, Purbalingga Regency. It was done at the seventh grade students of academic year 2013-2014.
2. Time of the Research

Time of the research was conducted through the schedule below.

Table the schedule of the research

<table>
<thead>
<tr>
<th>No</th>
<th>Activities</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Making proposal</td>
<td>February: √, March: √</td>
</tr>
<tr>
<td>2</td>
<td>Making instrument</td>
<td>April: √</td>
</tr>
<tr>
<td>3</td>
<td>Doing seminar</td>
<td>May: √, June: √</td>
</tr>
<tr>
<td>4</td>
<td>Collecting of data</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Analysing of data</td>
<td>April: √, May: √</td>
</tr>
<tr>
<td>6</td>
<td>Making a report</td>
<td></td>
</tr>
</tbody>
</table>

C. Subject of the Research

1. Population

Arikunto (2010: 173) states that population is all subject of the research. The population of this research was the seventh grade students of SMP Negeri 1 Kutasari, Purbalingga in academic year 2013-2014. There were eight classes which consist of 32-35 students and the total numbers of the students were 275.

2. Sample

According to the population, 25% will be the sample. This is accordance with Arikunto’s suggestion (2010: 174) “if the subject of population consists of large number, the subject that will be taken is 10%-15% or 20%-25% of population or more, depends on the researcher’s time, energy, and fund. So from the eight classes, there
were two classes as the sample of the research.

In the experimental class, the lesson was taught or presented by using CSW (Catch, Speak, and Write) game and in the control class without using CSW (Catch, Speak, and Write) game. This research took class VII G (control class) and class VII H (experimental class).

3. Sampling Technique

Arikunto (2010: 176) says that sampling is the process of selecting of the number of individuals for a study in such way that the individuals represent the larger group from which they were selected. This research took class VII G as the control class and class VII H as the experimental class because it was clarified before that this research belong to Quasi Experimental research, and the design of this research was non-equivalent group design. This condition made this research took those classes. In non-equivalent group design, this research could take classes or groups even though both of them have different basic knowledge and characteristic. It gives a freedom for this research to choose those classes. Moreover in the school, the class is naturally formed by the school regulation.

D. Method of Collecting Data

Collecting data is one of important part in a research. There are some ways that can be applied to collect data. They are test,
questionnaire, interview, and observation. To collect data, this experiment uses test. Test is the question that is used to measure skill, knowledge, intelligence or talent owned by individual or groups. (Arikunto 2010:193). The test would find out the writing mastery in the research. This research used two kinds of test, as follows:

1. Pre-test

   Pre-test was conducted to both of class, experimental class and control class. By giving pre-test, the basic score of two classes could be calculated. The type of instrument in this test was subjective test. This test provided a question or a direction to the students to make a simple descriptive text.

2. Post-test

   Post-test was used to measure the effect of certain treatment in this case of CSW (Catch, Speak, and Write) game. The type of instrument in this test was still subjective test. This test provided a direction to the students to make a simple of descriptive text.

E. Method of Analysis Data

After all of data were collected, it would be analysed. There were some steps in this stage, the steps were:

1. Determining the individual students’ ability

   To measure the students’ test, the writer used analytic score model. There are five categories in analytic scoring; they are content,
organization, vocabulary, language, and mechanic. Here is the

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects</th>
<th>Score</th>
<th>Indicators</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Content</td>
<td>27-30</td>
<td>Complete information, substantive, complete in developing writing, relevant with the problem</td>
<td>Very good-Perfect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22-26</td>
<td>Enough information, less substantive, not enough in developing writing problem.</td>
<td>Fair- Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17-21</td>
<td>Limited information, there is not substantial, not enough in developing writing problem</td>
<td>Bad- Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13-16</td>
<td>There is not content and problem</td>
<td>Very bad- Bad</td>
</tr>
<tr>
<td>2</td>
<td>Organization</td>
<td>18-20</td>
<td>Fluent in expressing, clear in expressing the idea, complete, well organization, logic, and cohesive</td>
<td>Very good-Perfect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14-17</td>
<td>Less in fluency, disorganized but clear in the main idea, limited in supporting material, logic but incomplete.</td>
<td>Fair- Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10-13</td>
<td>Not fluent, irregular idea, illogical in developing idea.</td>
<td>Bad- Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7-9</td>
<td>Not communicative, disorganized, invaluable.</td>
<td>Very bad- Bad</td>
</tr>
<tr>
<td>3</td>
<td>Vocabulary</td>
<td>18-20</td>
<td>Correct in word choice, mastery in word form.</td>
<td>Very good-Perfect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14-17</td>
<td>Sometimes incorrect in choosing the word but it does not disturb the meaning</td>
<td>Fair- Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10-13</td>
<td>Limited in using word, often make mistake in vocabulary and it can make change the meaning.</td>
<td>Bad- Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7-9</td>
<td>Bad in choosing the word, less in vocabulary and invaluable.</td>
<td>Very bad- Bad</td>
</tr>
<tr>
<td>4</td>
<td>Language</td>
<td>22-25</td>
<td>Effective in complex construction, only few in language mistake.</td>
<td>Very good-Perfect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18-21</td>
<td>Simple construction but effective, few mistake in complex construction, there is a mistake but it</td>
<td>Fair- Good</td>
</tr>
<tr>
<td>Score</td>
<td>Description</td>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-17</td>
<td>Serious mistake in the sentence construction and unclear meaning.</td>
<td>Bad- Fair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-10</td>
<td>Not mastering in syntactical construction, many mistakes, not communicative and invaluable.</td>
<td>Very bad- Bad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mastery writing rule, only some spelling error.</td>
<td>Very good-perfect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sometimes there is spelling error, but it does not change the meaning.</td>
<td>Fair- Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sometimes there is spelling error, uncertain meaning</td>
<td>Bad- Fair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Not mastering in writing, many spelling error, unreadable writing, invaluable</td>
<td>Very bad- Bad</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Determining classical students’ ability

To measure the students’ ability in writing both control and experiment group, the writer used the following formula:

\[
\bar{X} = \frac{\sum x^2}{N}
\]

Where:

- \( \bar{X} \) = mean score of control class
- \( \sum x^2 \) = the sum score of control class
- \( N \) = the total number of respondents

\[
\bar{Y} = \frac{\sum y^2}{N}
\]

Where:

- \( \bar{Y} \) = mean score of experimental class
\[ \sum y^2 \] = the sum score of experimental class

\[ N \] = the total number of respondents

3. Hypothesis Testing

To know the effect of CSW (Catch, Speak, and Write) game in teaching writing, the writer used t-test formula. Before the writer used it, the writer did some steps, they were:

a. Making a table

(See the appendix of table students’ score of Experiment class and Control class)

b. Calculating means of deviation of experiment class (Mx) and control class (My)

To get the calculation of deviation of control and experimental class, the writer used some steps:

1. Finding mean of deviation of experimental class (Mx)
   a. The post-test score of each student was reduced by the pre-test score.
   b. Then, calculating the total of deviation (residual) \[ \sum X \].
   c. Finally, calculating the total of deviation of the experimental class and divided into the numbers of students in that class.

\[ Mx = \frac{\sum X}{N} \]
Where:

\[ M_x = \text{mean of deviation of experimental class} \]
\[ \Sigma X = \text{total deviation} \]
\[ N = \text{the total number of respondents} \]

2. Finding the mean of deviation of control class

a. The post-test score of each student was reduced by the pre-test score.

b. Then, calculating the total of deviation \( \Sigma x \)

c. Finally, calculating the total of deviation of the experiment class and divided by the number of the students in that class.

\[ M_y = \frac{\Sigma Y}{N} \]

Where:

\[ M_y = \text{mean of deviation of the control class} \]
\[ \Sigma Y = \text{total deviation} \]
\[ N = \text{the total number of respondents} \]

c. Measuring the square deviation

1. The square of deviation of experimental class

\[ \Sigma x^2 = \Sigma x^2 - \frac{(\Sigma x)^2}{N} \]

Where:

\[ \Sigma x^2 = \text{the total square of experimental group} \]
\( N \) = the sum of respondents

2. The square deviation of control class

\[
\sum y^2 = \sum y^2 - \frac{(\sum y)^2}{N}
\]

Where:

\( \sum y^2 \) = the total square of control group

\( N \) = the sum of respondents

d. Inter Rater Reliability

In calculating the research of the students’ score in writing, the writer asks someone as an inter-rater. Inter-rater is someone who gives the score how much homogeneity or consensus. In this case, the rater is one of the English teachers who don’t have acquaintance with the students, she/he has no relation to the students because she/he doesn’t teach the sample. Furthermore, the mean between the first and the second markers will be calculated by joint agreement formula:

\[
X = \frac{I + II}{2}
\]

Where:

\( X \) = the students’ writing score

\( I \) = the first rater’s writing score

\( II \) = the second rater’s writing score

(Shuttleworth, 2009)
e. Calculating t-test Formula

T-test formula is used to know whether there is any effect of CSW (Catch, Speak, and Write) game in teaching descriptive writing or not.

\[
t = \frac{M_x - M_y}{\sqrt{\frac{\sum x^2 + \sum y^2}{N_x + N_y - 2} \left[ \frac{1}{N_x} + \frac{1}{N_y} \right]}}
\]

Where:
- \(M_x\) = mean score of experimental class
- \(M_y\) = mean score of control class
- \(\sum x^2\) = the total square of experimental class
- \(\sum y^2\) = the total square of control class
- \(N_x\) = the total number of experimental class
- \(N_y\) = the total number of control class

(Arikunto, 2010: 354)

After computing the t-test, the writer consulted the t-test result, if the mark was higher than value on t-table, it means that there was a positive effect of teaching descriptive writing using CSW (Catch, Speak, and Write) game, so the hypothesis is accepted (Arikunto, 2010: 356).