CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

In correlation with the problems and the purpose of the research mentioned in the previous chapter, this study was intended to be quantitative research. It is in accordance with the process of this research namely to get the data through pre-test and post-test. The researcher wanted to find out the effectiveness of using comic to increase the student’s ability in writing narrative text. So the researcher used method that is experimental.

Moreover, the researcher decides to choose the quantitative research because it is suitable with the characteristics of this research. An experimental research typically involves two classes, an experimental class and control class received different treatment and used pre-test and post test instrument.

3.2 Time and location of the Research

There are schedule of the research before conducting the research:

<table>
<thead>
<tr>
<th>Time</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>April, 20th 2015</td>
<td>Send permission letter at MTS AL-HIKMAH MOJOKERTO</td>
</tr>
<tr>
<td>April, 21st 2015</td>
<td>Prepare lesson plan, and teaching material</td>
</tr>
<tr>
<td>April, 23rd 2015</td>
<td>Try out</td>
</tr>
</tbody>
</table>

Table 3.1

The Researcher’s schedule
From schedule above, it is easy for the researcher to do experiment. Though these modules, the researcher will get the data from the student’s.

### 3.3 Population and Sample

According to Arikunto, population is all of the subjects of the research (2002:108). As stated in the previous chapter, MTS AL-HIKMAH MOJOKERTO are the student’s of Junior High School are expected to be able to communicate or to participate in the creation of text that serves their daily needs to entertain themselves, to read manuals, to carry out transactional exchanges and to write simple narrative, descriptions, reports, and recounts. Therefore, the researchers took second year students as the subject of this study. In this research, the source data and data of the research is taken by randomly. There are five classes were taken by random from all of the eight-grade class in MTS AL-HIKMAH MOJOKERTO. They are divided in two classes, namely experimental class and control class. One class is class A consist 30 students its namely experimental class and the other class is class B consist 30 students namely control class. Class A was chosen as the experimental class, which was taught by comic, while class B was chosen a control class which was taught without comic book. Every class had the same right to be the sample of the research. There was a pre-test to ensure that student’s competence of both class are equal.
3.4 **The Source of Data and Data of The Research**

The data of this research were mainly collected through experimental and the result of students writing work in the form of narrative composition. According to Arikunto, the source of data and the data of the study is a part of subject of the research (2002:109).

According to Fraenkel and Wallen (2006:273) in experimental research there are some designs of the research such as the type below:

*Figure I: Example random of experimental group research design*

<table>
<thead>
<tr>
<th>Research design</th>
<th>Group</th>
<th>pretest</th>
<th>treatment</th>
<th>posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>O</td>
<td>X</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>O</td>
<td>C</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

O = pretest and posttest
X = treatment class
C = non treatment

The research uses the design of Fraenkel and Wallen in figure I, it is appropriate in this research because design uses comparing group with analysis the treatment group (X) from pretest (O) and posttest (O).

3.5 **The Instrument of the Research**

This research indicated by the topic the effectiveness of comic to increasing students’ ability in writing narrative text. The method is expected to improve students’ ability in writing narrative text. This study uses three methods, which are: pretest, treatment and posttest. Firstly, pretest that the researcher provides exercises to two classes with the same problem. Finally, posttest method was given for a period of time and the
researcher will be analyzed to know the improvement of the students writing ability in composing a narrative written text. And it is the final result of the study of comic method.

3.5.1 Try out test

Try out test was given in the beginning of the research before the pre test is conducted. It was used to measure the validity and reliability of the test. The try out test was given in another class, it did not belong to the both experimental and control group. In try out test, the students were asked to make a narrative text about the title “My unforgettable experience”.

From this try out test, the researcher examined the students’ writing task. The score of this test were measured by grammar and vocabulary and check whether the score were reliable or not. If the score made by the score were not too far different, it meant that both scorers were reliable.

3.5.2 Pre-test

Pre-test was given in the beginning of the research after try out test had been done. It was used to measure the students’ writing ability before the research conducted. In the pre-test, students’ were asked to make a narrative text about the title “My unforgettable experience” and the allocation of time in pre-test is 60 minutes.

3.5.3 Treatment

Treatment was given just one moment in this research, so there is one class in this research. For this treatment, the students in control and experimental class were given material about narrative text and comic Donald Duck the title “walk and roll”. But the difference of those classes are researcher gave a helping by giving comic material related to the task to the experimental class. While in control class, the students are taught as usually, without comic material as a media.
3.5.4 Post-test

Post test was done after the students get different treatments class VIII- A is taught by using comic and class VIII-B is taught without comic and just teaching method. In post-test, students were asked to make a narrative text about the same title “My Unforgettable Experience”. From the score of this test, the researcher was intended to find out the effectiveness of us comic as the medium in writing narrative text. The result of the scoring then was compared with pre-test. In this case, the researcher knows how far is the effectiveness of using comic as the medium in writing narrative text. Those tests were used to measure the difference of achievement between students who were taught by using comic and the students who were taught without comic.

Another important thing to measure the student’s achievement in writing narrative text is based on the assessment criteria of students writing skill. The assessment criteria are taken from SL Composition Profile (Jacob: 1981). It can be seen in appendix.

3.6 The Data Collection Technique

The researcher uses instrument in the research that is in the form of test that are: pretest and post test. The instrument is used to know the result of student ability.

a. Firstly, the researcher gave try out to the students. It was used to analyze validity and reliability of the test. So, the tryout was given to another class, not for both experimental and control class. It was class VIII-C of the students of MTS AL-HIKMAH MOJOKERTO.

b. After giving try out and knowing the result of the try out was valid and reliable, then the pre-test was conducted to the students. It was given to the two classes. The researcher did not give the general explanation of the research at first, but the researcher gave the test directly, then, the test is done. The test is intended to know the students’ ability in making narrative text with the title “My Unforgettable
experience” before treatment. The role of the researcher is the observer and investigator during the research.

c. After that, in the treatment for the students in experimental class, the researcher gave an explanation about comic and how to write narrative text from the definition until generic structures and the language features.

d. For the control class, it was given material of narrative text as usually without comic as a medium to teach and just teaching method. The researcher used slide presentation of her teaching.

e. After the treatment had already been given, the whole students were given posttest. The title of writing test is “My Unforgettable Experience”, the same title as the pre-test. Posttest was done by the two classes, both in experimental and control class. Then, the researcher made a score for both students’ pre-test and post-test in control and experimental class. The result of the scoring then is compared with pre-test. In this case, the researcher knew how far was the effectiveness of using comic to increase students’ ability in writing narrative text.

3.7 The Data Analysis

To analyze the data and to present the interpretation, the researcher as the teacher first described the process of the implementation of comic books as the material source, and then giving pretest to the student. The researcher provides treatment method to one class with randomly. The researcher uses comic in experimental class to describe the result of students’ final composition. This description will be the analysis point of view. In the last section, there is some description about the difficulties that arose in the process of writing. And the last, the researcher provide the posttest for students to know the final result of this study.
3.7.1 Validity

An instrument will be valid if it be able to measure the data from variable that is researched exactly (Arikunto, 2006: 168). The validity that used in this research was content validity. The test can be called has content validity when the test is appropriate with the material or content that is given. So, the test is arranged based on curriculum that used by the school, it is curriculum of KTSP. The material of the test should be appropriate with material that the English teacher given. So, to conduct a testing of content validity, the researcher held a consultation with the expert judgments. They were GustiNurHafifah, M.Pd as supervisor, ArmeriaWijaya, SS, M.Pdas a writing lecture and SholikhatinFauziah, S.Pd as English teacher of MTS AL-HIKMAH MOJOKERTO.

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Validity of the test</th>
<th>Date of validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ArmeriaWijaya, SS.</td>
<td>✓</td>
<td>25 November 2015</td>
</tr>
<tr>
<td></td>
<td>M.Pd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sholikhatin F, S.Pd</td>
<td>✓</td>
<td>04 December 2015</td>
</tr>
</tbody>
</table>

3.7.2 Reliability of the test

Reliability has meaning consistent. It refers to the consistency of test scores. Besides having high validity, a good test should have high reliability too. To measure the reliability of the test, the researcher had given a test, namely try out test. It was done before conducting pre-test and post-test. The test was given to the fourteen students. They were asked to make narrative text about title “My Unforgettable Experience”. The researcher allocated 60 minutes in conducting try out test.

Reliability is tested by using formula of coefficient reliability Alpha Cronbach because the data is scale assessment. Testing of reliability is done by the another sample
of experimental group and control group that is tested before conducting pre-test and post-test. (Nunnally of Ghozali, 2006:42) states that the research instrument can be said a reliable if it has reliability coefficient or \( \alpha > 0.6 \) or more. According to Triton in Sujianto (2009: 97), the value of Cronbach’s alpha can be seen as follows:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Level of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 0.20</td>
<td>Less reliable</td>
</tr>
<tr>
<td>0.21 – 0.40</td>
<td>Rather reliable</td>
</tr>
<tr>
<td>0.41 – 0.60</td>
<td>Quite Reliable</td>
</tr>
<tr>
<td>0.61 – 0.80</td>
<td>Reliable</td>
</tr>
<tr>
<td>0.81 – 1.00</td>
<td>Very reliable</td>
</tr>
</tbody>
</table>

### 3.7.3 Normality test

Normality test is used to know the normality of the pretest data that is going to be analyzed whether both class have normal distribution or not. In this research, the researcher used SPSS 16.00 with used formula of One Sample Kolmogorov-Smirnov to measure the normality of the test. In calculation by using that formula, when the significant score is more than 0.05 (\( \alpha: 5\% \)) so it means that the data of this research is distributed normally. (Nurgiyantoro, 2004: 118).

### 3.7.4 Homogeneity Test

Homogeneity test is used to know whether experimental and control class, that are taken from population have same variant or not. In this case, the homogeneity will be conducted to the sample test that was used to collect the data. To measure the homogeneity test, the researcher took the pre-test score from both experimental and control class. The procedure of this test used to test variance of homogeneity is by determining \( F_{\text{count}} \). When \( F_{\text{count}} \) is lower than \( F_{\text{table}} \), it means that the data is homogeneous.
3.7.5 T-Test Calculation

To analyze the significant difference of the students’ ability in writing narrative text before and after using comic, the researcher used paired sample T-Test through SPSS 16.00 to analyze the data. This following is some steps to analyze the data:

a. Formulating the hypotheses. The hypotheses are in the form of $H_0$ and $H_1$.
b. Determining the value of $t_{\text{count}}$. It can be seen on the output of SPSS analysis.
c. Determining the value of $t_{\text{table}}$. It can be seen from statistical table in significance level $0.05 : 2 = 0.025$ (two tailed test) with degree of freedom (df) is $n-1$.
d. Determining the significance value based on the output of SPSS 16.00 analysis.
In this case, the significance value should be lower than than 5% significance level($<0.05$)
e. Determining hypothesis testing. Simply, the hypotheses testing are follows:
   a. If $-t_{\text{count}} < -t_{\text{table}}$ or $t_{\text{count}} > t_{\text{table}}$ and Sig < 0.05, so $H_0$ is rejected.
   b. If $-t_{\text{table}} \leq t_{\text{count}} \leq t_{\text{table}}$ and Sig > 0.05 so $H_0$ is accepted.
f. Making conclusion.

If $H_0$ is rejected, it means that there is significant difference of the students’ ability in writing narrative text before and after being taught by using comic. So, if $H_0$ is accepted means that there is no significant difference of the students’ ability in writing narrative text before and after being taught by using comic.