CHAPTER III
METHOD OF INVESTIGATION

A. Research Design

The researcher uses comparative research, because the result of students’ achievement in narrative writing will be presented on verbal word and numbered. Nana Syaodih Sukmadinata states “Comparative research is study form that compares two or more situation, phenomenon, activity and others which are same or similar, than it is pointed to find the similarity or difference.” Therefore, this research uses descriptive quantitative approach where the data of the study are presented on verbal word and numbered.

B. Research Setting

The researcher will conduct the research at MA NU Banat Kudus. The researcher chooses this setting because MA NU Banat gained many achievements. For example in 2008, MA NU Banat received International Certified ISO 9001:2008 QMS Certification from the watershed and in the year 2009/2010, MA NU Banat Kudus has been accredited with a score of 95. MA NU Banat also gained the non academic achievement like revenueing Certificate of MMS ISO 9001:2000 in 2008, revenueing Certificate of MMS ISO 9001:2008 (Surveillance I) in 2009, revenueing Certificate of MMS ISO 9001:2008 (Surveillance II) in 2010, and revenueing Certificate of MMS ISO 9001:2008 (Surveillance III) in 2011. For the certificates of the achievement is attache. The other reason is because the geographical location of MA NU Banat is not far from the researcher to reach. MA NU Banat is located at Jl. KH. Arwani Amin Kajan Krandon Kota Kudus. The phone number is (0291) 3316150 and the email address is www.manubanat-kudus.sch.id. The students are come from different region and

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50 Documentation from *MA NU Banat Kudus*, taken on December 2012.
they also have different intelligent, social background and characteristic. The program of learning activity is designed based on religion ministry curriculum.

C. Population and Sample

Population is all members of well defined class of people, events or objects. In this case the population of the research is eleventh grade students of natural and social study program at MA NU Banat Kudus in the academic year 2012/2013. The researcher take all the subject from natural study program consists of 48 students and from social study program consists of 48 students. Suharsimi Arikunto states that if the subject is less from a hundred subjects, it is better if all subject will be take as population of the research. Because the total of respondent is less from 100, so this research is called population research with 96 subjects.

D. Variable and Indicator

1. Variable

Variable is everything of form that researcher chose to be investigated, so that getting information about her investigation, and then it can be take conclusion.

The variable of this research is students’ achievement result in narrative writing. It is the eleventh grade students’ achievement result of narrative writing from natural study program as variable X₁ and the eleventh grade students’ achievement result of narrative writing from social study program as variable X₂.

2. Indicators

Indicators that used in this research is indicators of technique score of narrative writing based on the lesson plan from english teacher: 

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<table>
<thead>
<tr>
<th>Aspect</th>
<th>Criteria</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Excellent to very good</td>
<td>Knowledgable, substantive, relevant to assigned topic.</td>
<td>27-30</td>
</tr>
<tr>
<td></td>
<td>Good to average</td>
<td>Some knowledge of subject, mostly relevant to topic, but lacks detail.</td>
<td>22-26</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>Limited knowledge of subject, little substance.</td>
<td>17-21</td>
</tr>
<tr>
<td></td>
<td>Very poor</td>
<td>Does not show knowledge of subject, non-substantive.</td>
<td>13-16</td>
</tr>
<tr>
<td>Organization</td>
<td>Excellent to very good</td>
<td>Fluent expression, ideas clearly stated, well organized, logical sequencing, cohesive.</td>
<td>18-20</td>
</tr>
<tr>
<td></td>
<td>Good to average</td>
<td>Loosely organized but main idea stand out, limited support, logical but incomplete sequencing.</td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>Non fluent, ideas confused or disconnected, lacks logical sequencing and development.</td>
<td>10-13</td>
</tr>
<tr>
<td></td>
<td>Verry poor</td>
<td>Does not communicate, no organization.</td>
<td>7-9</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Excellent to very good</td>
<td>Effective word/idiom choice and usage, word form mastery, appropriate register.</td>
<td>18-20</td>
</tr>
<tr>
<td></td>
<td>Good to average</td>
<td>Occasional errors of words idiom forms-choice-usage <em>but meaning not obscured.</em></td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>Frequent errors of words idiom form-choice-usage, <em>meaning confused or obscured.</em></td>
<td>10-13</td>
</tr>
<tr>
<td></td>
<td>Very poor</td>
<td>Little knowledge of English vocabulary-idioms-word form.</td>
<td>7-9</td>
</tr>
<tr>
<td>Lague use</td>
<td>Excellent to very good</td>
<td>Effective complex constructions, few errors of agreement-tense-number-word order/function-articles-pronouns-preposition.</td>
<td>22-25</td>
</tr>
<tr>
<td></td>
<td>Good to average</td>
<td>Effective but simple constructions, minor problem in complex constructions, several errors of negation-agreement-tense-number-word order/function-articles-pronouns-preposition, <em>meaning seldom obscured.</em></td>
<td>18-21</td>
</tr>
</tbody>
</table>

Documentation from teacher of English subject, taken on October 29, 2012.
<table>
<thead>
<tr>
<th></th>
<th>Mechanics</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair to poor</td>
<td>Excellent to very good</td>
<td>Major problems in simple/complex construction, frequent error of negation-agreement-tense-number-word order/function-articles-pronouns-preposition, meaning confused or obscured.</td>
<td>5</td>
</tr>
<tr>
<td>Very poor</td>
<td>Few errors of spelling, punctuation, capitalization, paragraphing</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good to average</td>
<td>Occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequent errors of spelling, punctuation, capitalization, paragraphing, meaning confused or obscured.</td>
<td>2</td>
</tr>
</tbody>
</table>

E. Data Collection Technique

The researcher uses two kinds of instrument in gathering data:

1. The main data

   Documentation is one important instrument as the main data. Documentation method is intended to find data on manuscript, book, magazine, newspaper, epigraph and agenda. In this study, the researcher uses narrative writing score to compare their achievement result in narrative writing skill both two classes.

2. Supporting data

   In doing this research, the researcher uses interview and questionnaire as supporting data. The researcher uses interview with several questions for

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55 Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*, p. 236
teacher about her way to teach narrative text. The researcher gives list of questions for students to find out data about their opinion in narrative text. The questionnaire is divided into two sections: structured question and unstructured question. Structured question determined students’ aspiration in learning narrative text while unstructured with certain answer.\textsuperscript{56} Besides, to determine students’ aspiration with deeply consideration, the researcher conduct unstructured question.\textsuperscript{57} List of questions are in English while in order to make students’ understand well, the researcher translates into Indonesian language. The list of questions is attached.

F. Data Analysis Technique

1. First analysis

After get the score of achievement result of narrative writing from the teacher, the researcher will analyze it. The researcher will determine the quality of the score and interval of the score by this steps:

a. Search the number of interval class
   \[ M = 1 + 3.3 \log N \]

b. Search a Range
   \[ R = H - L + 1 \]

c. Determine the length of interval class
   \[ I = \frac{R}{M} \]

Where:
- \( I \) = the length of interval class
- \( R \) = range
- \( M \) = the number of interval class
- \( H \) = the highest score
- \( L \) = the lowest score
- \( N \) = number of respondent

\textsuperscript{56} Sugiyono, \textit{Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D}, p.194.

\textsuperscript{57} Sugiyono, \textit{Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D}, p. 197.
2. Hypothesis analysis

Because this research is quantitative analysis, the researcher will use formula to analyze the data. In analyzing data, the researcher will compare the students’ narrative writing score from the English teacher of both classes. In order to investigate whether there is significantly difference of students' achievement both two classes. The researcher’s step to analyze is38:

a) To determine Mean of each variables (X₁ and X₂) :

\[ \bar{X}_1 = \frac{\sum X_1}{n_1} \quad \bar{X}_2 = \frac{\sum X_2}{n_2} \]

b) To determine Standard Deviation of each variables (X₁ and X₂) :

\[ S^2_1 = \frac{\sum (X_1 - \bar{X}_1)^2}{n-1} \quad S^2_2 = \frac{\sum (X_2 - \bar{X}_2)^2}{n-1} \]

c) To determine Composite of Standard Deviation =

\[ S^2 = \frac{(n_1-1)s^2_1 + (n_2-1)s^2_2}{n_1+n_2-2} \]

d) Determine t-test =

\[ t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s^2_1}{n_1} + \frac{s^2_2}{n_2}}} \]

Where :

\[ t \] = t score of difference result between X₁ and X₂

\[ \bar{X}_1 \] = Mean of achievement result of narrative writing for students of natural study program

\[ \bar{X}_2 \] = Mean of achievement result of narrative writing for students of social study program

\[ n_1 \] = students of natural study program

\[ n_2 \] = students of social study program

e) Significant test

For testing the signficancy, the first step is determine degrees of freedom (df)\(^59\):
\[
df = (N_1 + N_2) - 2
\]
Keterangan :
- df : Degrees of Freedom
- \(N_1\) : A number of students of natural study program
- \(N_2\) : A number of students of social study program

After get \(t_0\) and degrees of freedom (df) from the compute above, the next step is to check the criteria \(T_{table}\).

3. Final analysis

In this analysis will make some interpretation data from the result process between variable \(X_1\) and variable \(X_2\). In the implementation is compare t-test with significant degree 1% and 5% of \(t_{table}\).

a. If \(H_0\) is unacceptable means alternative hypothesis is acceptable. So, the conclusion is “there is significant difference between students’ achievement result of natural study program and social study program in narrative writing”.

b. If \(H_0\) is acceptable means alternative hypothesis is unacceptable. So, the conclusion is “there is nothing significant difference between students’ achievement result of natural study program and social study program in narrative writing”.

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