

CHAPTER III

METHOD OF THE RESEARCH

In this chapter the researcher discusses design of the research, population and sample, instrument of the research, data collection and data analysis.

3.1 Design of the Research

According to Arikunto (2006:84) research design is a design made by researcher as the guidance in carrying out the research. The research design aims to give responsibility for setting the next steps to make the result more accurate and objective. While Ali (1984:72) states that In doing a research, a researcher should arrange a research design in order to make the research more effective, efficient, logic, and systematic.

In this research, the design that is used is pre experimental research. The researcher uses one group pre-test and post test. There will be one group students being treated in the experiment of teaching writing narrative text by using Clustering Technique. It is called pre experimental research, because this research is done by giving pre test, treatment and post test for one group, and there is no control group. The design in this research is formulated by Ali (1984:136) as follows:

Pretest	Treatment	Posttest
T ₁	X	T ₂

Table 3.1 Pattern of one group Pre-test Post-test

Note:

T1: Pre-test

X: Treatment

T2: Post-test

This research consists of two variables those are independent and dependent variables. According to Ali (1984:131) independent variables is the condition influencing the appearance of an indication appearing because of the implementation of an experiment called as X and the dependent variable is the implementation of an experiment and also called effect variable or called as Y.

1. Independent variable (X): The X variable of this research is the use of Clustering Technique to teach writing narrative text.
2. Dependent variable (Y): The Y variable of this research is writing ability of the tenth grade students of MA Darul Falah Cluwk Pati in the academic year 2013/2014.

3.2 Population and Sample

According to Ali (1984: 54) Population is the total numbers of the research respondent". Population in this research are entire first grade students of

MA Darul Falah Cluwak Pati in the academic year 2013/2014. The number of population is 138 students.

According to Ali (1984: 54) sample is a part of representative of population. In taking sample in this research, the writer used cluster random sampling technique through lottery. In conducting this technique, the writer made four role of papers that are class XA, XB, XC, XD. Then the writer choosed one role paper randomly to decide the class. Finally the researcher got class XC that consist of 28 students.

3.3 Instrument of the Research

In collecting the data for the research, the researcher need a research instrument. According to Arikunto (2006:149) instrument is a means to collect data. Arikunto (2006:150) categorized two types of instrument, test and non test. He also said that test is a series of questions or exercises used to measure skills, knowledge, intelegences, abilities, or talent possessed by individual or group. While non test includes giving questionare, interview, observation, arting skill and documentation.

To measure the writing ability of tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014 by using clustering technique, the researcher used test. The type of test in this reasearch is writen test, it is essay test. To get the score of the test, the researcher used scoring guidance of writing according to Weir, Cyril J. in Asrofin (2010:56) as follows:

No	Aspect	Score	Description
1	Content	5	Bear almost no relation to the task
		10	Limited relevance to the task
		15	Mostly answer the task
		20	Relevant and adequate answer to the task
2	Organization	5	No apparent organization of the content
		10	Very little organization of content. Underlying structure not sufficiently apparent
		15	Some organizational skills in evidence, but not adequately controlled
		20	Overall shape and internal pattern clear.. organizational skills adequately controlled
3	Vocabulary	5	Vocabulary inadequate even for the most basic part of intended communication
		10	Frequent inadequacies in vocabulary for the task. Perhaps frequent lexical inappropriate and/or repetition
		15	Some inadequacies in vocabulary for the task. Perhaps some lexical inappropriate and/or circumlocution
		20	Almost no inadequacies in vocabulary for the task. Only rare inappropriate and/or circumlocution
4	Grammar	5	Almost all grammatical pattern inaccurate
		10	Frequent grammatical inaccurate
		15	Some grammatical inaccurate
		20	Almost no grammatical inaccurate
5	Mechanical accuracy (punctuation and spelling)	5	Ignorance of conventions of punctuation. Almost all spelling inaccurate
		10	Low standard of accuracy in punctuation and spelling
		15	Some inaccuracy in punctuation and spelling
		20	Almost no inaccuracy in punctuation and spelling

Table 3.2 Scoring rubric

3.4 Data Collection

To make this research successful, the researcher conducted the several steps of collecting data:

1. The researcher asked permission to the Dean of Faculty of Teacher Training and Education of University Muria Kudus.
2. The researcher asked permission to Head master of MA Darul Falah Cluwak Pati.
3. The researcher gave Pre-test to the tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014.
4. The researcher taught writing narrative text by using clustering technique to the tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014.
5. The researcher gave Post-test to the tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014.
6. The researcher analyzed result of Pre-test score and Post-test score.

3.5 Data Anaysis

Based on statement of the problem stated in the previous chapter, the data should be analyzed are:

1. Score of pre-test is test used before using Clustering as a technique of teaching English to increase writing ability.
2. Score of post-test is test used after using Clustering as technique of teaching English to increase writing ability.

In analyzing the scores using t-test, the researcher should find out the Mean and the Standard Deviation of both the pretest and posttest score. To find out mean and standard deviation the researcher uses formula by F. Healy (2005_:98), as follow:

$$\bar{x} = \frac{\sum(fm)}{N}$$

Notes:

\bar{x} = Mean

$\sum fx$ = The sum of fm (f = frekuensi, m = midpoints)

N = The number of students

$$S = \frac{\sqrt{\sum f(m - \bar{x})^2}}{N}$$

Notes:

S = Standard Deviation

f = Frekuensi

m = Midpoint

\bar{x} = Mean

N = The number of students

After finding out the Mean and Standard Deviation, the researcher uses a method to analyze the data t-test formula by Arikunto (2002: 275):

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

Notes:

t = the t-value for dependent (correlated) means

\bar{D} = the mean of the differences

D = the difference between the paired score

$\sum D^2$ = the sum of the squared difference scores

N = the number of sample

To find out whether there is significant different between the ability of the tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014 in writing narrative text before and after being taught by using Clustering technique, the hypothesis testing was done by using the following steps:

1. Stating the null hypothesis

$$H_0: \mu_1 = \mu_2$$

It means “there is no significant difference between the ability of the tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014 in writing narrative text before and after being taught by using Clustering technique”.

$$(H_a: \mu_1 \neq \mu_2)$$

It means “there is significant difference between the ability of the tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014 in

writing narrative text before and after being taught by using Clustering technique”.

Where:

μ_1 : Writing ability of tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014 before being taught by using clustering technique.

μ_2 : Writing ability of tenth grade students of MA Darul Falah Cluwak Pati in the academic year 2013/2014 after being taught by using clustering technique.

2. Selecting the sampling distribution and establishing the Critical Region

Sampling distribution = t distribution

Level of significance (α) = 0.05 two tailed test

Degree of freedom (df) = N-1

t (critical) = ± 2.052

3. Computing the test statistic

It can be computed by using formula

$$(t) = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

4. Making a decision and interpreting the results

Accept H_0 and reject H_a if t_0 does not fall in the critical region.

Reject H_0 and accept H_a if t_0 falls in the critical region.