

## CHAPTER III

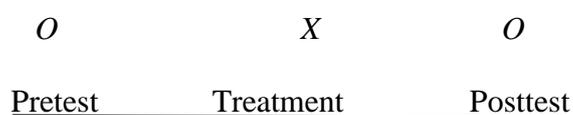
### METHOD OF RESEARCH

#### A. Research Design

The research used experimental design. According to Fraenkel and Wallen (2009,p.7). “Experimental research is the most conclusive of scientific methods. Because the researcher actually establishes different treatment and then studies their effect, results from this type of research are likely to lead to the most clear-cut interpretations”. Consequently, experimental research is used in this research.

The one-group pretest-posttest design were used in this research. According to Fraenkel and Wallen (2009,p.265) In the **one-group pretest-posttest design**, a single group is measured or observed not only after being exposed to a treatment of some sort, but also before it. A diagram of this design is as follows:

#### The One-Group Pretest-Posttest Design



There are several things that the researcher did in this research:

1. First, the researcher met the headmaster of MAN 3 BANJAR to ask permission for doing research. He gave a proposal and the letter of Culture and Education Department as the condition to do this research.

2. Second, the reasearcher met the English teacher for discussing the research and arranging some lessons plan. The researcher and the teacher selected the material, prepared media of teaching, and provided test. There ten meetings for treatment including pre-test and post-test. The students of X Agama 1 as the experimental class and taught by using Inquiry Based Learning as treatment to increase students' writing skill.
3. Then, the researcher gave the students pre test. Since the purpose of pre-test is to find out the students' prior knowledge about writing skill of them. There were about recount text and narrative text by several topics of in the pre-test, they are: The story of Snow White, Romeo and Juliet Tragic Story, the story of Cinderela, the story of Malin Kundang, and The ugly Duckling for recount text. While, topic for narrative text are: My Birthday, My Holiday, My Experience, Celebrations (Eid Al-Adha, Eid Al-Fitr,etc), and special Moment. The students were asked to choose one of those topics, and then write the recount text or narrative text based on the topic they have chosen.
4. Next, reseacrher did the research by give the treatment for students. The treatment of this research was Inquiry Based Learning for teaching English especially focused in writing skill. The treatment was focused on how the students increase their writing skill by implementation Inquiry Based Learning in teaching-learning process based on the lesson plan.

5. After that, researcher gave the students post-test. The purpose of post-test was to find out the students' increasing understanding of the material given. As pre-test, the post-test also had several topics about recount and narrative text, and the students should choose one of them.
6. Then, researcher calculated the students' score. The researcher used the scoring rubric from Brown (2007) which consist of five aspects. They are content, mechanics, vocabulary, organization, and grammar. After calculating the students' score, the researcher interpret the score whether it is "Excellent", "Good", "Fair", or "Poor".
7. Next, researcher analyzed the data. In this part, the researcher will analyze the data by using paired sample t-test. Since the purpose is to prove the hypotheses whether  $H_a$  is accepted or  $H_o$  is accepted, then the hypothesis testing is done.
8. Finally, researcher drawed the conclusion based on the finding research. After analyzing the data, the researcher found the result and make conclusion based on the result. The results was described by words, table, and diagram.

## **B. Research Setting**

Setting of this research is MAN 3 Banjar at street Ahmad Yani Km. 15,200 Gambut, South Kalimantan. Time of this research was at 11<sup>th</sup> January 2018 until 14<sup>th</sup> February 2018. The class observed was class X Agama 1. This research setting was a where the committed researcher Teaching Practice II and based on the observation conducted during Teaching Practice II, it is obtained

that most of the tenth graders of Agama 1 as have trouble in writing English paragraphs. The researcher is interested to used inquiry based learning as a strategy to improve their writing skills. Along with the implementation of curriculum 2013 and 2017 simultaneously in all classes in Man 3 Banjar in particular the tenth grade.

### **C. Research Variables**

This research has two variables as follow :

1. Independent Variable (x) : Inquiry Based Learning
2. Dependent Variabele (y) : Writing Skill

### **D. Subject and Object**

The Subject and Object of this research are explained in separate points as follow:

#### **1. Subject of the Research**

The subjects of this research are the tenth grade students of Agama I at MAN 3 Banjar. The class consists of 38 students. However, At the time of pre test and post test, there were only 35 students who were present in the class.

#### **2. Object of the Research**

The objects of this research is Inquiry Based Learning to increase students writing skill at MAN 3 Banjar.

### **E. Research Instrument**

The whole process of preparing to collect the data is called instrumentation (Fraenkel and Wallen, 2009, p.113). The instrumentation of

this research is test : Pre-test and Post-test. The test is in the form of writing test. The test consists of short answer, completing the sentence, making paragraph. The assessment of this writing include 5 aspects: content, organization, vocabulary, language use (syntax), and mechanics. The test is conducted before the treatment as a pre-test and after the treatment as a post-test. In pre-test, all of students of experiment class will answer question items about writing narrative text or recount text, it means the writer wants to know the student's writing skill before the teacher teaching about narrative text and recount text.

In post-test, all of students of experiment class will answer the questions items after they learn about writing narrative text or recount text, it means the writer wants to know the student's writing skill after the teacher teaching about narrative text and recount text.

In order to make the organizing and analysis of the data processing easier, the writer organizes the measurement design of the students' writing of narrative text and recount text. In classifying the score, the writer used the measurement of students' right answer.

It is important for the researchers to use valid instruments. The conclusions they draw are based on the information should have a validity and reliability.

#### 1. Validity

Validity is an important idea to consider when preparing or selecting an instrument for use. Validity refers to the appropriateness,

meaningfulness, correctness, and usefulness of the inferences a researcher makes (Fraenkel and Wallen, 2009, p.150).

Content validity is used in this research. Content validation is partly a matter of determining if the content it is supposed to represent (Fraenkel and Wallen, 2009, p.153). It judges whether the content is appropriate or not and also measure the students' achievement in English. In addition, the validity of the instruments will be consulted with lecturer and English teacher to know whether the instruments are valid or not.

## 2. Reliability

According to Selinger and Shohamy (1989) Reliability is the scale of stability that measures whatever it is measuring. Reliability refers to the consistency of the scores obtained-how consistent they are for each individual from one administration of an instrument to another and from one set of items to another (Fraenkel and Wallen, 2009,p.154). The researcher uses Alpha formula with SPSS 22 program to explain the reliability of the test, with category based on Hilton and Brownlow (2004,p.364):

If  $\alpha = >0.90$  the reliability is perfect

= 0.70-0.90 the reliability is high

= 0.5-0.70 the reliability is moderate

=  $<0.50$  the reliability is low

## **F. Data Collection Procedure**

Method of data collection is the way that is used to collect the data.

There are some data that need to fulfill in this research. The technique of data collecting that the researcher used are:

### 1. Test

In getting the data, researcher used test as a method. According to Brown (2001, p.384) "Test is a method of measuring a person's ability or knowledge in a given domain". In other words, test is used when we want to measure subject's writing skill in a certain area of a study. In this reasearch, the objective test is used to measure students' writing skill at the the tenth grade by using Inquiry Based Learning (*IBL*).

### 2. Observation

Observation is the activity of researcher that looking at what people actually does (Robert, 2007, p.11) This technique was used to observe the tenth grade students of Agama I at MAN 3 Banjar and also used to collect other related data such as the class environment and activities in the classroom by using Inquiry Based Learning.

### 3. Video Recording

This video was recorded when the researcher did research in the tenth graders at MAN 3 Banjar. Video recording was used to describe the students activity by using inquiri based learning.

### 4. Teaching Reflection

Teaching Reflection means looking at what the teacher do in the classroom, thinking about why teacher do it, and thinking about if it works a process of self-observation and self-evaluation. In teaching reflection three aspects : strength, waeknesses, and improvement target.

#### **G. Data Analysis Procedure**

This research uses quantitative approach in analyzing the data. Cresweel and Clark (2003) had point of view that quantitative data includes closed-ended information such as that found on atitude, behavior of performance instruments. According to Fraenkel and Wallen (2006, p.15) quantitative data deals primarily with numbers. Therefore, quantitative approach is used to describe the improvement of the students' Writing skill who are taught by using inquiry method.

Experimental research is the most full quantitative research approach, in sense of meeting all the requirements to test the cause and effect relationship. Experimental research can also be interpreted as an objective, systematic and controlled study to predict or control phenomena. In this case will be done analysis of experimental research data by using two research variables.

The technique for data analysis used *SPSS program* : The t-test assesses whether the mean scores from two experimental conditions are statistically different from one another. A *repeated-measures* t-test (also known by other names such as the 'paired samples' or 'related' t-test) is what you should use in situations when your design is within participants. In a within participants

design, participants contribute data for the dependent variable in all of the experimental conditions.

Paired sample T test was used to compare whether there are differences or similarities between two groups of data samples that were related / paired. (Yamin & Kurniawan.2009, p.56).