**CHAPTER III**

**RESEARCH METHOD**

In this chapter the researcher present about kind of research, location and time of research, population and sample, research design, research variable, instrument development, technique of collecting data, technique of data analysis.

1. **Kinds of Research**

According to Departemen Pendidikan Nasional, 2008, hlm. 47 : the type of research used in preparing this application is Research and Development research. This research model is descriptive, outlining the stages that must be followed to produce a product in the form of developing writing skills in descriptive essay learning.

According to Sugiyono:2008, hlm. 298 the Research and Development process is as follows:

**Figure 3.1 . Proses Research and Development**

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1. **Potential and Problems**

Sugiyono. P. 298 states : Potential is anything that, if utilized, will have added value. Meanwhile, problems are deviations between what is expected and what happens . The potential that researchers found in the field was that many school children were using smartphones, but the problem that emerged was that most school children only used them for surfing the internet, taking selfies, chatting, and so on. Meanwhile, the potential that could be utilized from the devices Smartphones are easy to use, do not require a large amount of electrical power like computers or laptops, and are easy to carry anywhere because they are smaller and lighter than computers and laptops.

1. **Data collection**

The research method used here is direct observation and unstructured d interviews.

Unstructured interviews were conducted 3 times, namely:

1) Interview before implementing blended learning on campus

This interview was conducted to determine the potential, problems and needs in developing the writing .

2) Interviews when implementing blended learning

This interview was conducted to find out the problems and difficulties that arose during implementation in the field.

3) Interview after implementing blended learning in the field. This interview was conducted to find out what things needed to be improved or added regarding the blended learning model.

**3. Design Validation**

Product validation is carried out to determine the weaknesses and strengths of the blended learning model by practicing or implementing several applications needed to develop the learning process in writing to assess the newly designed product.

**4. Usage Trial**

Usage trials are carried out to determine the weaknesses and strengths of the application when applied in the field.

**5. Mass Production**

Mass manufacturing of products is carried out if the product has been tested and declared suitable for use.

1. **Location and Time of Research**

 The writer conducted this study at STKIP Usman Safri Kutacane on Jln. Pulonas Baru No. 6 District. Lawe Bulan , District. Southeast Aceh, Aceh. The participants in this study were all students in STKIP Usman Safri Kutacane in the 2022/2023 academic year. The writer chose this campus because the location is not too far away, and in Kutacane there is only 1 collage that has an English language study program. So, it make easier for writer to do the research.

The research done on 2023.

1. **Population and Sample**
2. Population

Population is a number of persons or things to observe in a research. According to James H. Mcmillan*. Educational Reseach Fundamentala for the Consumer.*Virginia Commonwealth University; harpertacollins).p.85, population is a group of elements or cases, whether individuals, objects, or events, that conforms to specific criteria and which we intend to generalize the result of the research. It means that the population is all of the individuals of the member who want to be observed. The population in this research is the students of STKIP Usman Safri Kutacane academic year of 2022-2023 and total numbers of students are 61 students which consist of 3 (three) classes.

**Table 3.1 The populationof research**

|  |  |  |
| --- | --- | --- |
| No. | Class | Population |
| 1. | 2st semester students | 12 students |
| 2. | 4nd semester students | 21 students |
| 3. | 6rd semester students | 29 students |
| Total | 62 students |

 ScouceFrom : The head of English Education Study Program Academic year of 2022-2023

1. Sample

Sample is a part of population which wants to be analyzed. Sample must be representation it is to be able to generalize with confidence from the sample to the population. In this research, writer will be taken purposive sample by Sugiono (2011:68) he said purposive sample is a sample determination technique with special consideration so that feasible in the sample. This research will be taken 2rd semester students , because that is considered a class that is already proficient in writing lessons.

**Table 3.2 The sample**

|  |  |  |
| --- | --- | --- |
| No. | Class | Total |
| 1. | 2rd semester students | 12 students |
| Total | 1. students
 |

#  Research Design

The design used in this study is a Research and Experimental Development (R&D). According to Amile and Reesnes (2015: 297), Research and Experimental Development (R&D) is a research method used to produce certain products, and test their effectiveness of these products. In this research used experimental research, was a pre-test wil used before given treatment, with the aim of knowing the state of the group before treatment. Then after being given treatment, the experimental group and the control group were given a post-test test, to determine the state of the group after treatment. In this study the experimental group, learning is done using the Blended Learning method by flipped Classroom model, and for the learning control group is done using conventional methods.

Before being given treatment, both the experimental group and the control group were given a test which was a pre-test, with the aim of knowing the state of the group before treatment. Then after being given treatment, the experimental group and the control group were given a post-test test, to determine the state of the group after treatment. In this study the experimental group, learning is done using the Blended Learning method, and for the learning control group is done using conventional methods.

1. **Research Variable**

Variable is a quality which can take a number of different values or states (Brown. A and Dowling.P, 1998:22). According to Sudjana (1992:310) there are two kinds of variables, that is independent variable and dependent variable. Independent variable is a variable that are easily obtained and can be diversified into free variable, while dependent variable is the effect of independent variable.

This research consists of two variables, they are:

1. Dependent Variable(x) ;

Dependent variable in this research is the blended learning.

1. Independent Variable (y) ;

The independent variable in this research is the writing skill.

# Instrument Development

The instrument development was a essay writing tests by write descrivtive essay. This test is very useful for this research as an instrument. Certainly, this is used to measure students' writing skill. This is related to Brown's opinion that the test can be used to measure a person's ability. Tests are given twice, there are pre-test and post-test. Pre-test is intended to determine the initial writing skills of the sample and post-test is intended to examine whether the technique of using Blended Learning has an improve or not on students' essay writing skills. According to Hughes, he stated that the test was said to be valid if it accurately measured what was intended to measure. The writer uses essay writing that is suitable for the syllabus.

 In assessing students writing pre-test and post-test, reliability is needed. According to Frankel, and Wallen that reliability then refers to the extent to which test scores are obtained. To achieve instrument reliability, there are several aspects that need to be considered as follows: content, organization, vocabulary, language use, and mechanics.

#  Technique for Collecting the Data

In this study, the researcher used quantitative data. The research data were collected by giving written tests to students. The test consists of pre-test and post- test.

* 1. Pre-test

The writer gives a preliminary test to students. Pre-test in the form of a written test. The test consists of several instructions about writing essay writing. The students are asked to write descriptive essays at least 4 paragraphs. In Pre-test aid at knowing the students’ ability before having treatment.

* 1. Treatment

The treatment was conducted after the pre-test. In the experimental group, the students were taught by applying the Blended Learning method by Flipped Classroom model while the control group, the students were taught by using the direct method. Both the experimental and control groups were taught with the same material.

* 1. Post-test

In the final step, the writer provide a post-test after treatment is done. Post-test realization is the same as the pre-test. The tests will be given to the experimental class and the control class. Pre-tests will be given at the beginning of the meeting. After that, students in the control class learn descriptive essay that is usually done in class. Meanwhile, the experimental class will receive treatment using Blended Learning in descriptive text learning. After providing treatment, a post-test will be conducted to measure whether there are differences between the experimental classes that have provided control classes and those that have not yet provided care. To find out how this test is valid, the test given must be related to the material that has been studied.

1. **Technique of Data Analysis**

After collecting data from the test, the writer used qualitative and quantitative technique of data analyze. In qualitative, data obtained from interviews by the lecturers and students and observation to the collage. In quantitative technique, the data will be calculated by using ttest the following procedure will be implemented to analysis the data.

1. Finding means of pretest (Sugiono, 2010:41)

$ X\_{1}=\frac{\sum\_{}^{}X\_{1}}{n}$

$ X\_{2}=\frac{\sum\_{}^{}X\_{1}}{n}$

Where:

$\overbar{ X}\_{1 }$= mean of pretest

$\overbar{X}\_{2}$ =mean of posttest

 n = total number of sample

1. Finding of standard deviation of posttest (Sugiono, 2010:43)

$$S\_{1}^{2}= \frac{\sum\_{}^{}f( x\_{i}–x )^{2}}{(n-1)}$$

$$S\_{2}^{2}= \frac{\sum\_{}^{}f( x\_{i}–x )^{2}}{(n-1)}$$

where :

S2 = The mean of variance

X = The mean of pre – test and post – test

X1 = The mean of X1

n = Total sampling

1. Determining the equation of T test, by using the formula:

$t\_{o}=\frac{\overbar{X}\_{1}- \overbar{X}\_{2}}{\sqrt{\frac{S\_{1}^{2}}{n\_{1}} + \frac{S\_{2}^{2}}{n\_{2}}}}$

where :

X1 = The mean of pre – test

X2 = The mean of post – test

S21 = Variance of pre – test

S22 = Variance of post – test

n = Total sampling

Assumptions :

Comparing “t” observation (t0) with “t” table (tt)

If $t\_{0bservation}$ ≥ $t\_{table}$, it means hypothesis is received.

If $t\_{0bservation}$ ≤ $ t\_{table}$, it means hypothesis is refused.