

CHAPTER III

RESEARCH METHOD

A. Research Design

In this research, the writer uses quantitative method. By using this method, the writer intends to explain the phenomenon by collecting numeric data that are analyzed using mathematically based methods (in particular statistics). The writer processes the data statistically, by designing the research instruments aimed specifically at converting phenomenon that exist in quantitative form and data.

B. Research Setting

This research is conducted at MTsN Kelayan, Jln. Kelayan A gang Setuju Banjarmasin.

C. Subject and Object of The Research

a. Subject of the research

The subject of this research are 26 students from one class of eighth grade of MTsN Kelayan.

b. Object of the research

The object of this research is vocabulary mastery of students who play and who do not play Clash of Clans game.

D. Research Instrument

1. Data

The data of this research is the comparative between students who play and who do not play clash of clans game on students' vocabulary mastery at the eighth grade students of MTsN Kelayan academic year 2015/2016.

In this research , in order classify the students who like and who do not like play clash of clans game by using questionnaire. The students must answers 5 questions about clash of clans game.

To measure their vocabulary mastery, the students will answers 10 multiple choice, 15 find the meaning and 10 matching. Total 35 questions about game clash of clans. There are three parts for the test, the first part is multiple-choice that each of true answer gets 2 point, the second part is fill in the blanks that each of true answer gets 4 point, and the third part is matching that each of true answer gets 2 point. The total point or score for the test is 100.

2. Source of data

The data above is taken out from the sources below:

1. Respondents: 26 students of eight grde of MTsN Kelayan who like and do not like playing Clash of Clans (COC) game.
2. Informant: The Headmster, the English teachers, Staff TU.
3. Document: all written form of the vocabularies of the game.

E. Technique of Data Collection

The technique of the data collection for this research is using test and questionnaire.

1. Questionnaire

This techniques is used to get information about whether the students playing this game or not. The questionnaire consist of 5 questions.

2. Written Test

The test that used for this research is meant to answer the problem statements above that want to find out the effect of playing Clash of Clans game in enriching the students' vocabulary mastery. The test is giving students the vocabularies that are in Clash of Clans game.

F. Data Analysis Procedure

1. Data Processing

The data processing of this research is divided into four phases as follows:

a. Collecting

The writer collects all of the data needed and actually the answer test of the students.

b. Scoring

The writer gives a score to the answer of students' test numerically.

c. Tabulating

The writer composes and puts the data into a table and then counts its percentage by using the following formula:

$$P = \frac{F}{N} \times 100\%$$

Note :

P: Percentage

F: The frequency of answer from respondents for speaking test.

N = Total number of respondents

d. Interpreting

The next step of data processing is to interpreting the data which have been tabulated by using categories as follows, the writer makes the category from the formula that categorize the students' vocabulary mastery, it is determined based on students' score from the test that the writer have been given to the students. (Sudjana, 2010: 196-197).

$$i = \frac{R}{b}$$

where, $R = (H-L) + 1$

Explanations:

i = interval range

R = total range

b = the number of category

H = highest score

L = lowest score

Therefore, the calculation of this research is as follows:

$$R = (H-L) + 1$$

$$H = 92$$

$$L = 30$$

$$R = (100-30) + 1$$

$$= 70 + 1$$

$$= 71$$

$$i = \frac{R}{b}$$

$$= 71/5$$

$$= 14$$

The interval class range can be seen in the table:

Table 3.1. Category interval of students' vocabulary mastery

| Score | Category |
|--------------|-----------------|
| 90-100 | Very good |
| 75-89 | Good |
| 60-74 | Fair |
| 45-59 | Poor |
| 30-44 | Very Poor |

2. Data Analysis Procedure

All the collected and processed data are then analyzed descriptively and quantitatively. Data analysis is a process by which data simplified into a form can be read and interpreted easily.

After all the collected data have been processed, the writer analyses them and makes conclusion by using the “t” or “t” test formula of Anas Sudijono (1987, p. 314).

$$t = \frac{M1 - M2}{SEM1 - M2}$$

Description:

t = test are being sought

M₁ = mean of students' vocabulary mastery of students who like playing Clash of Clans Game

M₂ = mean of students' vocabulary mastery of students who do not like playing Clash of Clans Game

SEM_{1 - M2} = Standard error difference in mean students' vocabulary mastery between students who like and who do not like playing Clash of Clans Game.

This technique is used to analyze truth or wrong about hypothesis of the research. There are 7 steps to process the data including:

1. After doing the test and each sample has score, the writer count the mean for getting data of Students' vocabulary mastery by using the following formula:

$$M = \frac{\sum x}{N}$$

2. The writer count standard deviation of each major by using formula:

$$S_D = \sqrt{\frac{\sum x^2}{(N-1)}}$$

3. The writer count standard error of mean from each major by using formula:

$$SE_M = \frac{SD}{\sqrt{N-1}}$$

4. The writer count standard error from both major by using formula:

$$SE_{M_1 - M_2} = \sqrt{SEM_1^2 + SEM_2^2}$$

5. The writer count t-test by using formula:

$$t \text{ test} = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

6. Giving interpretation for "t" with consulting t table ("t" table):

Looking for Degree of Freedom:

$$df/db = (N_1 + N_2 - 2)$$

df/db : Degree of Freedom

N_1 : Number of Subject of the Control Class of Madrasah Aliyah

Darul Imad Banjar Regency at eleventh grade students.

N_2 : Number of Subject of the Experiment Class of Madrasah Aliyah Darul Imad Banjar Regency at eleventh grade students.

2 : Value of degree of freedom for variables.

Consulting Score of “df/db” with “t table”:

t table : Value of Critic “t”

In significant degrees t table 5% = 2,01

In significant degrees t table 1% = 2,68

Making hypothesis Interpretation:

H_0 (Zero Hypothesis): There is no significant difference.

H_a (Alternative Hypothesis): There is significant difference.

7. The writer makes conclusion

- If t count > t table = H_0 (Zero Hypothesis) will be rejected and H_a (Alternative Hypothesis) will be accepted.
- If t count < t table = H_0 (Zero Hypothesis) will be accepted and H_a (Alternative Hypothesis) will be rejected.

Explanation:

M = Average number of mean

Ex = Total of score

N = Total of sample

SD = Standard of deviation

SEm = Standard error of mean

$SEM_1 - SEM_2 =$ Standard error of both samples

$t =$ Student's "t" test score.