

CHAPTER III

RESEARCH METHOD

A. Research Design

The approach used in this study is the quantitative approach. True to its name, widely used with numbers. Start from data collection, interpretation of the data, as well as the appearance of the result (Suryabrata, 2003).

The design of this research is Quasi experiment research conducted by doing manipulation aimed at know the result of manipulation treatment against individuals (Latipun, 2006).

In this study, the researchers compared the two classes. One class of students was given special treatment of using Comic in story retelling experiment class. While one class of students who were is control class, in the process of teaching and learning do not use Comic in story retelling.

The research design used i.e. Posttest Only Control Group Design with pattern as follows:

Tabel 3.1 Pretest-posttest Control Group Design

| | | | | |
|---|------------|----|---|----|
| R | Experiment | O1 | X | O2 |
| R | Control | O3 | | O4 |

Description:

(R): the Group is selected by random

(X): Treatment or treatment for experimental groups in using the media.

(O2: O4): influence of the existence of treatment treatment (alphabets experiment and control)

In this design research, there are two classes that are chosen by random, than given a pretest to know the State is the difference between the experiment group and the control group. A good pretest results when the value group of experiment did not differ significantly. The influence the treatment is $(O2-O1) - (O4-O3)$

B. Research Setting

This research takes place at 8th year Junior High School of MTs Kebun Bunga Banjarmasin of MELATI IV street RT 5 Kecamatan Banjarmasin Timur, Kota Banjarmasin.

C. Population and Sample

1. Population

Best (1991, p.8) states that population is any group of individuals that has one or more characteristics in common, while according to Johnson (1987, p.110), population is the entire group of entities or persons to which the results of the study are intended to apply. The population of this research is all students of VIIIA consist from 20 students (male = 11, female = 9), VIIIB consist from 20 students (male = 11, female = 9). And total is 40 students.

2. Sample

The sample is a part of the population that has the same characteristics of the population. According to sugiyono (2012, p.118) "sample is part of the number

and characteristics of which are owned by the population". Suharsimi Arikunto (2012, p.174) states briefly that "the sample is just partly or totally from the whole population".

The consideration of taking the sample in this study using a purposive sampling technique. "purposive sampling is a technique of determining the sample with a certain consideration", (Sugiyono, 2012, p.183). This type of withdrawal sample by considering the type of research used in this study requires the control class and experiment class. Then it can be concluded that both class VIII.A and VIII.B will be the two samples were selected from all population classes

D. Research Instrument

Kerlinger (1965, p.118) states that an instrument plays an important role in a study in the sense that reliability of the instrument will influence the reliability of the data obtained. The instrument that the researcher used in this research is Test. According Moreover, Heaton (1975, p.89) states that the test used must be appropriate in term of our object, the dependable in the evidence provides, and applicable to our particular situation. In this case, the researcher gave the students speaking test in using comics Donald Duck. This study aimed at knowing the effectiveness of using comics in teaching English from identify the result of the test.

E. Data Collection

1. Test

The test will given by a series exercises used for measuring the student ability about the material (Comics strip about Donald Duck). The data will be submitted from pre-test before do a treatment for detecting how far the students English concept about “Story retelling (Use Comic)”. material, then it will be compared with test result of post-test after a treatment.

- a. The pre-test conducted both of the class, experimental and control class in order to know students' speaking ability before treatment given.
- b. Treatment. In experiment class the researcher using comics in story retelling in teaching speaking and control class without comics in story retelling.
- c. The post-test given after the researcher give treatment to know whether or not the change on students speaking ability.

2. Rubric of Scoring System

In evaluating the students' speaking scores, the observer used speaking task by Harris (1975, p84). Based on the speaking task, there are five components, namely : pronunciation, fluency, grammar, vocabulary and comprehension.

Table 3.2 *Rubric Speaking*

| No | Name | Fluency | | | | Pronunciation | | | | Performance skill | | | | Vocabulary | | | |
|----|------|---------|---|---|---|---------------|---|---|---|-------------------|---|---|---|------------|---|---|---|
| | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 3 | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |

Students Score :

$$\frac{\text{total score}}{16} \times 100$$

| Criteria | Score |
|-----------|---------|
| Very good | 85-1000 |
| Good | 70-84 |
| Okay | 55-69 |
| Poor | 25-54 |

F. Technique of Data Collection

The steps collecting data there are several stages, namely :

1. Make the instrument test research, the test is performed to determine learning outcomes. Forms tests be about Comics strip.
2. Perform the validation and reliability of instruments.
3. Conduct teaching and learning by doing in class experiments using comics strip in teaching speaking, and teaching speaking in control class without using comics strip in stroy retelling.
4. Draw up post test
5. Do a test on a sample of students.
6. Analyzing data and conclusion.

G. Data Analysis

1. The validity of a test

The validity of a test represents the extent to which a test measures what is purpose to measure. In simple word does the test really measure the characteristic that is being used to measure (Tuckman, 1978, p.163) The writer used empirical validity since this research deals with statistical.

To calculate the empirical validity of each item, the writer used Pearson Product Moment proposed by Arikunto (2002, p.146). The formula is:

$$r_{xy} = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} - \{N \sum Y^2 - (\sum Y)^2\}}}$$

Where :

r_{xy} = Correlation coefficient between X variable with Y variable

N= the number of students/subject participating in the test

X= the sum of X score

Y= the sum of Y score

After getting the result, the writter categorizes it into the standard validity as follows:

| Value | Category |
|--------------|------------|
| 0,08 - 1, 00 | Very Valid |
| 0,60 – 0,79 | Valid |

| | |
|-------------|--------------|
| 0,40 – 0,50 | Valid Enough |
| 0,20 – 0,39 | Less Valid |
| 0,00 – 0,19 | Not Valid |

A test said valid when it measures what is intended to measure.

Calculation result of r_{xy} is compared with r table of product moment by 5% degree of significance. If r_{xy} is higher than r table, the item of questions is valid.

2. The reliability test

Is the quality of consistency that the instrument or procedure demonstrates over a period of time (Best, 1981, p.154). Reliability shows whether the instrument is reliable and can be used as a device to collect the data. Reliability means the stability of test scores when the test is used. To measure the reliability of the test, the writer used the formula:

$$r_i = \frac{k}{(k-1)} \left\{ \frac{s_t^2 - \sum p_i q_i}{s_t^2} \right\}$$

where:

r_{11} : index reliability

k : number of item

p = proportion of people passing the item,

q = proportion of people failing the item

s_t^2 : total variance

After get t_{count} the compared with the criteria from Guilford to know about the interpretation of reliability has been calculated.

3. Normality Test

It will test the normally data that will be tested in this study. Researcher uses Chi-Square test of Sudjana (2005, p.273) as follow:

a. The significance Level

The significance level used $\alpha = 5\%$

b. Statistic test $\chi^2 = \sum_{i=1}^k \frac{(O_i - E_i)^2}{E_i}$

Where:

O_i : Frequency of hope

E_i : the expected Frequency

K : the number of observations

This test uses program SPSS 22 of Kolmogorov Smirnov Test of normality in the study carried out using the program SPSS 22. With the provisions if the significance is greater than 0.05 then it can be inferred

4. Homogeneity Test

Is used to know whether experimental group and control group, that are decided, come from population that has relatively same variant or not.

The formula is:

$$F = \frac{Vb}{Vk}$$

Notice:

Vb : bigger varian

Vk : smaller varian

5. Hypothesis Test

Hypothesis will be counted with:

$$H_0 : \mu_1 \leq \mu_0$$

$$H_a : \mu_1 > \mu_0$$

Hypothesis test will use formula as follow:

$$t_{hitung} = \frac{\bar{X} - \mu_0}{\frac{s}{\sqrt{n}}}$$

Where :

\bar{X} = mean from *post-test*

μ_0 = mean from *pre-test*

s = deviation standard *post-test*

n = total of sample

Test Criteria as follow:

If $t_h \leq t_0$, H_0 accepted.

If $t_0 > t_h$, H_0 ignored.

6. Significant of Hypothesis test

Determine the significant standard $\alpha = 0,05$. Then, looking for t table with a pattern $db = n-1$.

Test Criteria as follow:

If $t_h \leq t_0$, H_0 significant.

If $t_0 > t_h$, H_0 not significant.

In this research, the data gained from post test was organized and summarized by using descriptive statistics. After that, the data was statically computed by using inferential statistics.

7. Statistics

a. Descriptive Statistics

The writer analyzed them by using Descriptive Statistics. The writer transcribed the students' oral test on paper and then the scored the result of oral test. To differentiate whether the students' result of speaking English using comic and without using comic is significant or not. After the frequency distribution was set up, it was summarized which was aimed at finding out mean, median, and modus.

1) Mean

$$\bar{X} = \frac{\sum_{i=1}^K f_i M_i}{\sum_{i=1}^K f_i}$$

dimana:

M_i adalah nilai tengah kelompok data ke-i

f_i adalah frekuensi atau banyaknya observasi pada kelompok data ke-i

K adalah banyaknya kelompok data (kelas).

2) Median

The Median is the 'middle value' in your list. And the formula is

$$Median = B_m + I. \left(\frac{\frac{n}{2} - (\sum f_i)_0}{f_m} \right)$$

dimana:

B_m = bonderi bawah dari kelas median

$(\sum f_i)_0$ = jumlah frekuensi dari kelas-kelas sebelum kelas median

f_m = frekuensi dari kelas median

n = banyaknya seluruh observasi (jumlah semua frekuensi)

I = interval kelas median.

3) Modus

The mode in a list of numbers refers to the list of numbers that occur most frequently. And the formula is

$$Modus = B_{mod} + I \cdot \left(\frac{f_1}{f_1 + f_2} \right)$$

dimana,

B_{mod} = Banderi bawah dari kelas modus

f_1 = selisih frekuensi kelas modus dengan frekuensi kelas sebelumnya.

f_2 = selisih frekuensi kelas modus dengan frekuensi kelas sesudahnya.

I = interval kelas modus.