

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

In this research, the researcher applied pre-experimental research method with one group pre-test and post-test. It aimed to know how to teach English vocabulary through mnemonic techniques at the students of Rumah Bambu Pintar Kab. Pinrang.

The design was presented as follow:

$$E = 01 \times 02$$

Note:

E : Experimental Group

01 : Pre-test

X : Treatment

02 : Post-test¹¹

B. Location and Duration of the Research

The location of this research was Rumah Bambu Pintar Desa Wiringtasi Kec. Suppa Kab. Pinrang by focusing at teenager in the first level and the duration of this research was one month.

C. Population and Sample

1. Population

Population is the group of interest to the researcher, the group of to which she or he would like the results of the study to be generalizes.² The population of this

¹Sugiyono, *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R & D* (Bandung: Alfabeta, 2010), p.110-111.

²L.R. Gay, *Educational Research: Competencies for Analysis & Application*. (Columbus: Carles E. Merrill, 1981) p.86

research was the teenager group of Student's Rumah Bambu Pintar Desa Wringtasi Kec. Suppa, Kab. Pinrang. There were three level in teenager. They consisted 40 students.

Table 3.1 Population of the students of Rumah Bambu Pintar Kec. Suppa Kab. Pinrang

| No | Class | Level | Students | | Number |
|--------------|----------|-------|----------|--------|--------|
| | | | Male | Female | |
| 1 | Teenager | 1 | - | 20 | 20 |
| | | 2 | - | 12 | 12 |
| | | 3 | - | 8 | 8 |
| Total number | | | | 40 | 40 |

2. Sample

In this research, the researcher used purposive sampling technique. According to Sugiyono in his book, purposive sampling technique is a technique of sample based on data sources with certain considerations.³ So the researcher used purposive sampling because not all samples had the criteria needed by researcher. The researcher needed sample from the first level in Rumah Bambu Pintar because they were still basic in study English at Rumah Bambu Pintar. So, the number of sample was 20 students from class teenager in level 1, which were purposive from total number of population.

D. The Instrument of the Research

In this research, there were two instruments which used to find out the data, they were:

³ Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif dan R&D*, (Bandung: Alfabeta. 2016)

1. Test

In this research, the researcher used objective test in form of multiple choice 10 numbers, matching test 5 numbers and 15 items of fill in the blank test. So, the total number of this test was 30 numbers. The test applied for pre-test and posttest. The pre-test used to measure the students' vocabulary mastery before giving the treatment. While the post-test used to measure the students' vocabulary mastery after giving the treatment and know the effectiveness of Mnemonics technique in enhancing the vocabulary.

2. Questionnaire

Questionnaire was relative popular means of collecting data.⁴ The researcher used questionnaire to know the interest of students in learning vocabulary by mnemonics technique. The researcher gave the students some papers which consist of 20 items questions which the positive statements were 10 items and the negative statements also were 10 items.

E. Procedure of Collecting Data

In collecting of data, the researcher divided in three stages, they are:

1. Pre-test

Before the researcher gave the treatment by using mnemonics technique, the researcher gave the students pre-test that used to find out the students' vocabulary before treatment. After giving the pre-test, the researcher checked the students' work to know how the students' lack in mastering vocabulary. After that, the researcher gave a treatment by using mnemonics technique to enhance their vocabulary.

⁴ David Nunan, *Research Methods in Language Learning* (Cambridge University Press, 1992), p.145

2. Treatment

After giving the pre-test, the researcher gave the treatment to the students in the classroom for several meetings. The researcher applied the procedure of each activity. The treatment based on the procedure as follows:

a. First meeting

The researcher gave greeting to the students to open the class. The researcher and students prayed together before studying. Then the researcher gave warming up to the students. After that, the researcher explained material about pronoun. The researcher introduced about mnemonic techniques that this method helped them to memorize vocabulary easily. For this meeting, the researcher used one of technique from mnemonics, that was rhyme technique. In rhyme technique, the researcher gave material about pronoun with rhyme (song). The researcher gave vocabulary to the students then explained how sing a song with the vocabulary. Then the students sang with the vocabulary repeatedly. After that, the researcher gave exercise about the material. Before the researcher closed the class, the researcher gave motivation to the students. After that prayed together and teacher gave greetings to close the class.

b. Second meeting

The researcher gave greeting to the students to open the class. The researcher and students prayed together before studying. Then the researcher gave warming up to review the last material. For this meeting, the researcher used the other technique of mnemonics, it was method of locy. In method of locy, the researcher gave new vocabulary and the students memorized the vocabulary with imagine the vocabulary with a place that they knew it. So, every time the students forgot the new words, they would have remembered again when they remembered the place. After that, the researcher gave exercise about the material. Before the researcher closed the class,

the researcher gave motivation to the students. After that prayed together and teacher gave greetings to close the class.

c. Third meeting

The researcher gave greeting to the students to open the class. The researcher and students prayed together before studying. Then the researcher gave warming up to review the last material. For this meeting, the researcher used method of locy. The researcher gave new vocabulary and the students memorized the vocabulary with imagine the vocabulary with a place that they knew it. So, every time the students forgot the new words, they remembered again when they remembered the place. After that, the researcher gave exercise about the material. Before the researcher closed the class, the researcher gave motivation to the students. After that prayed together and teacher gave greetings to close the class.

d. Fourth meeting

The researcher gave greeting to the students to open the class. The researcher and students prayed together before studying. Then the researcher gave warming up to review the last material. After that, the researcher introduced and explained material about shape. For this meeting, the researcher used the other technique from mnemonics, it was peg words system. In peg words system, the researcher paired the shape with similar object then the students memorized it easily. After that, the researcher explained how to make sentence and how to ask about shape. Then the teacher gave exercise about the material. Before the researcher closed the class, the researcher gave motivation to the students. After that prayed together and teacher gave greetings to close the class.

e. Fifth meeting

The researcher gave greeting to the students to open the class. The researcher and students prayed together before studying. Then the researcher gave warming up to review the last material. Next, the researcher gave new vocabulary about size. For this meeting, the researcher used the other technique from mnemonics, it was acronym technique. In acronym technique, the researcher took the first letter of each words and combined with the other words. Example BTS (Big, Tall, Small). After that, the researcher explained how to make sentence and how to ask about size. Then, the researcher gave exercise about the material. Before the researcher closed the class, the researcher gave motivation to the students. After that prayed together and teacher gave greetings to close the class.

f. Sixth meeting

The researcher gave greeting to the students to open the class. The researcher and students prayed together before studying. Then the researcher gave warming up to review the last material. After that, the researcher explained material about articles and gave the other vocabulary. For this meeting, the researcher used the other technique from mnemonics, it was link word technique. In link word technique, the students memorized the vocabulary with imagine the vocabulary related to each other and made a short story to help remembered the vocabulary. After that, the researcher gave exercise about the material. Before the researcher closed the class, the researcher gave motivation to the students. After that prayed together and teacher gave greetings to close the class.

3. Post-test

After giving the treatment, the researcher gave the students post-test to find out the result of the treatment to measure the students' vocabulary mastery through mnemonic techniques.

4. Questionnaire

The researcher gave the questionnaire for the students in the last meeting to find out the students respond in learning vocabulary by using mnemonic techniques. In questionnaire, there was five choice categories that the students was choice from twenty questions.

F. Technique of Data Analysis

In this researcher, the researcher applied the test analyze quantitatively as technique of data analysis. The researcher employed some steps as follow:

1. Scoring the students' answer

Scoring the students' answered of pre-test and post-test use this formula:⁵

$$\text{Score} = \frac{\text{student's score}}{\text{Total number of items}} \times 100$$

2. Classifying the score of students by using following scale:

Table 3.2 Classifying the score

| No | Classification | Score |
|----|----------------|----------|
| 1 | Excellent | 86 – 100 |
| 2 | Good | 71 – 85 |
| 3 | Fair | 56 – 70 |
| 4 | Poor | 41 – 55 |

⁵Igak Wardanhi & Kuswaya Wihardhit, *Penelitian Tindakan Kelas* (Jakarta: Universitas Terbuka, 2008), p. 325

| | | |
|---|-----------|-----------|
| 5 | Very poor | ≤ 40 |
|---|-----------|-----------|

Sources: (Direjen Pendidikan Dasardan Menengah, 2005:2)⁶

3. Finding out the mean score will use the following formula:

$$X = \frac{\sum Xi}{n}$$

Where:

X = Mean

$\sum Xi$ = Total score

N = The total number of students⁷

4. Calculating of standard deviation of students' pre-test and post-test scores by following formula:

$$SD = \sqrt{\frac{SS}{N}} \text{ Where } SS = \sum X^2 - \frac{(\sum X)^2}{N}$$

Where:

SD = The Standard Deviation

N = The Number of Subjects

SS = The square root of the sum of squares

$\sum X^2$ = The sum of all square

$(\sum X)^2$ = The square of the sum scores⁸

5. Calculating the rate percentage of the students score:

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

⁶Dirjen Pendidikan Dasar dan Menengah, Peraturan Direktoral Jendral Pendidikan Dasar dan Menengah Tentang: *Penilaian Perkembangan Anak Didik*, (Jakarta: Depdiknas, 2005), p.2

⁷Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan, Edisi Revisi* (Jakarta: Bumi Aksara, 2009), p.298

⁸Sukardi, *Metodologi Penelitian Pendidikan* (Jakarta: PT Bumi Aksara, 2003) p 88.

Where:

X = percentage

F = frequency

N = total of number of sample.⁹

6. Finding out the difference of the mean score between pre-test and post-test

by calculate the test value using the following formula:

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

Where:

T = test of significance

D = the mean score of difference (X1-X2)

$\sum D$ = the sum of the total score

$\sum D^2$ = the square of the sum score of difference¹⁰

N = the total sample

7. The formula of questionnaire

To analyze the students' response, the researcher used a Likert Scale category that can be seen on the following table:

Table 3.3 Likert Scale category

| Category | Positive statement score | Negative statement score |
|---------------------|--------------------------|--------------------------|
| Strong agree | 5 | 1 |
| Agree | 4 | 2 |
| Undecided | 3 | 3 |

⁹Anas Sujidon, *Pengantar Statistika Pendidikan* (Jakarta: Raja Grafindo Persada, 2006), p.43

¹⁰ Gay L.R. *Educational Research, Competencies for Analysis and Application second edition*, p.331

| | | |
|--------------------------|---|---|
| Disagree | 2 | 4 |
| Strongly disagree | 1 | 5 |

(Source: Liker scale category)

Table. 3. 4 The rating score of the category

| Score | Classification |
|---------------|------------------------|
| 81-100 | Very strong |
| 61-80 | Strong |
| 41-60 | Enough |
| 21-40 | Low |
| 0-20 | Very low ¹¹ |

Calculating the rat percentage of how Mnemonics technique able to improve the students' vocabulary mastery score:

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

Where:

P = percentage

F = frequency

N = total of number of sample.¹²

¹¹ Ridwan and Akdon, *Rumus dan Data dalam Analisis Statistika*, (Bandung:Alfabeta, 2002), p.16

¹² Anas Sujidon, *Pengantar Statistika Pendidikan* (Jakarta: Raja Grafindo Persada, 2006), p.43