## CHAPTER III

## RESEARCH METHODOLOGY

### 3.1. Research Design

The design of the research is a Quasi Experimental Design Equivalent Pre-test and Post-test Group Design" Two groups served as experimental groups. John W. Creswell (2008: 299) explains that experiment is testing an idea (practice) to determine whether it influences an outcome or dependent variable. Creswell also states that when individual are not randomly assigned, the procedure is called quasi experiment (2009: 155). Ary Donald (2007: 282) states that quasi experimental design is used where true experiment design is not feasible. According to L.R Gay, the experimental method is a method of reserach that can turly test hypotesis concerning with cause and effect relationship in the experimental research (2000: 349). Gay said "An experiment typically involves a comparison of two groups (although as you will see later, there may be only one group, or there may be three or more groups).

The experimental comparison is usually one of three types: 1 . Comparison of two different approaches (A versus B); 2. Comparison of a new approach and the existing approach (A versus no A); 3. Comparison of different amount of a single approach (A little of A versus a lot of A)" (2000: 368). Type 1 (comparison of two different approaches) is conducted in this research. In this research, there are three variables; Save the Last Word for Me Strategy and Listen－Read－Discuss（LRD）Strategy are independent variables，while the students＇reading comprehension is dependent variable．Therefore the experimental class is provided with the treatment，and post－test．It can be drawn in the following table：

Table 3.1
The Research Design

| E1 | O1 | X1 | O2 |
| :--- | :--- | :--- | :--- |
| E2 | O1 | X2 | O2 |

Figure（Gay，2000：392）
E1 ：Experimental Group 1
E2 ：Experimental Group 2
X1 ：Independent Variable 1 （Save the Last Word for Me strategy）
X2 ：Independent Variable 2 （Listen－Read－Discuss（LRD）strategy）
O1 ：Pre－test
O2 Post－test

## 3．2．Location and Time of the Research

The location of this research is SMPN 1 Teluk Pinang．It is located in Indragiri Hilir Regency．The duration of time to conduct this research is within two months starting on September $22^{\text {th }}$ up to October $18^{\text {th }} 2016$.

## 3．3．Subject and Object of the Research

The subject of this research is the second year students at SMPN 1 Teluk Pinang in Indragiri Hilir regency and the object of this research is
comparison between using Save the Last Word for Me and Listen-ReadDiscuss strategies toward students' reading comprehension.

### 3.4. The population and the Sample

The population of this research is the second year students of SMPN 1 Teluk Pinang in the academic year 2015 - 2016 which consist of 356 students distribute into six classes. It can be seen in the following table:

Table 3.2
Population of Students in SMPN 1 Teluk Pinang.

| Class | Total of Students |
| :---: | :---: |
| VIII.A | 35 |
| VIII.B | 35 |
| VIII.C | 35 |
| VIII.D | 35 |
| VIII.E | 35 |
| VIII.F | 35 |
| VIII.G | 35 |
| VIII.H | 35 |
| VIII.I | 38 |
| VIII.J | 38 |
| Total Population | $\mathbf{3 5 6}$ |

The population above is so large to take as a sample of the research. Based on the limitation of the research, two classes will be chosen after using cluster sampling technique. The following table is the sample of the research which consists of 38 students of VIII.I and 38 students of VIII.J

Tabel III. 3
The Total Sample of the Research

| No | Class | Group | Male | Female | Total Number of <br> Students |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | VIII. | I | 15 | 23 | 38 |
| 2 |  | J | 13 | 25 | 38 |
| Total |  |  |  |  | $\mathbf{6 4}$ |

The kind of research sample is a cluster sampling which means that two classes are appointed to be the participants of this research. The total population is the second year students at SMPN 1 Teluk Pinang is 356 students in academic 2015 - 2016. In this research, the samples are 64 students which are group I consist of 38 students as an experimental group 1 and group J consist of 38 students as an experimental group 2. In choosing VIII.I and VIII.J as the sample of this research the writer was asked the teacher to determine which class was homogent and could be used as the research sample.

Figure 3.1

### 3.5. Research Procedure

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## © <br> 3.6. Research Instruments

### 3.6.1 Observation

 the contribution of teaching learning English by using Save the Last Word for Me and LRD strategies on students' reading activities. The observation will carry out to observe the implementing of teaching learning English by using Save the Last Word for Me and Listen-Read-Discuss strategies will be achieved. The observation also will carry out to assess students' reading comprehension. The teacher will involve in implementing teaching and learning process by using Save the Last Word for Me and LRD strategies. When the teacher teaches the students in front of the classroom, the researcher will observe the teachers' teaching activities and the students' reading activities at the back of classroom from the beginning until the end.
## ${ }^{\infty}$ <br> 3.6.2 Test

To collect the data, reading test is administered as the instrument of this study. The pre-test and post- test will be administered to two groups which consist of experimental group 1 that consists of 38 students and experimental group 2 that consist of 38 students. The pre-test will be administered before the treatment and the post-test aims is to find out students' reading comprehension after treatment. In the treatments will be given by using Save the Last Word for Me and Listen-Read-Discuss strategies. This activity also intends to find out whether the students' reading
comprehension keep holding of the material after doing the treatment. After getting the score, the researcher will measure the total scores of students' reading comprehension and the classification of students' score can be seen as the table belows:

Table 3.3
The Classification of Students' score

| Score | Categories |
| :---: | :---: |
| $80-100$ | Very good |
| $66-79$ | Good |
| $56-65$ | Sufficient |
| $40-55$ | Poor |
| $30-39$ | Fail |

If the students are able to achieve the goal, it means the assessment of students' reading comprehension correlate with purposes of the achievement. Hughes (2003) states that there are many techniques that can be assessed students' reading comprehension but in this research the writer uses written test.
3.7 Validity and Reliability Test.

### 3.7.1 The validity of instrument

Before collecting the data, the researcher tries to test the items that should be ideally to test. The purpose of test is to find out the quality of the test items. As Brown (2000:22) states that a test is method of a measuring a person's ability, knowledge, or performance in a given domain. Validity is the extent to which inferences make from assessment result are appropriate, meaningful, and useful in terms of the purpose of the assessment. discrimination index by using a formula (Heaton, $1975: 178$ ).
$F V=\frac{R}{N} x 100 \%$
Where :
FV : The index of difficulty
R : The number of correct answer

N : The number of respondents

### 3.7.2 The reliability of Instrument

A reliability is an important characteristic of a good test. In order to calculate the reliability of the test, the researcher finds out the students' mean scores of standard deviation.

To find out the reliability of the test the following formula is used; the discrimination index of an item indicates the extent to which the item discriminates between the students, separating the more able students from the less able. The following formula is taken from Heaton (1975: 164) as follow :

$$
\begin{gathered}
r_{i i}=\frac{N}{N-1}\left(1-\frac{m(N-m)}{N X^{2}}\right. \\
M=\frac{\sum x}{N} \text { and } S^{2}=\frac{\sum x^{2}-\frac{\left(\sum x_{j}\right)^{2}}{N}}{N}
\end{gathered}
$$



. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
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Where :
$\mathrm{r}_{\mathrm{ii}}$ : Reliability of the test
$\mathrm{N} \quad$ : The number of item in the test

M : The mean score of all the test
$S^{2} \quad: \quad$ The standard deviation of all the test score

Table 3.4
Ccriteria Coefisien of Reliability

| Coefisien Reliability | Criteria |
| :---: | :---: |
| $0,80 \leq \mathrm{r}_{11} \leq 1,00$ | Highest reliability |
| $0,60 \leq \mathrm{r}_{11} \leq 0,79$ | High reliability |
| $0,40 \leq \mathrm{r}_{11} \leq 0,59$ | Middle reliability |
| $0,20 \leq \mathrm{r}_{11} \leq 0,39$ | Low reliability |
| $0,00 \leq \mathrm{r}_{11} \leq 0,19$ | Lowest reliability |

### 3.8 Data Analysis Technique

The scoring guide is chosen as the criteria of scoring representing the basic aspects of reading. The reading results are evaluated by considering five aspects and each aspect has a score or a level, namely, topic, main idea, specific idea, textual reference, and word meaning.

In analysing the data, the researcher uses scores of pre-test and posttest of an experimental group and a control groups. This score is analyzed statistically for both descriptive and inferential statistics. In this research, the researcher uses the following formulas.

### 3.8.1 Independent sample $t$-test

To find out whether there is a significant difference or there is no a significant difference between two or more variables can be analyse by using Independent Sample $t_{\text {test. }}$ Gay states that the $t$-test for independent sample is used to determine whether there is probably a significant difference between the means of two independent samples. Independent sample t-test uses to find out the results of the first and fourth hypotheses.

To analyze the final-test scores of an experimental group 1 and an experimental group 2, the researcher use the following formula:
$t=\frac{M_{X}-M_{Y}}{\frac{S D_{X}^{2}}{N_{1}-1}-\frac{S_{Y}{ }^{2}}{N_{Z}{ }^{-1}}}$
Where :
$\mathrm{T}_{1}=$ The value of comparing two means
$\mathrm{M}_{\mathrm{X}}=$ Mean of the score in pre-test (experimental group 1)
$\mathrm{M}_{\mathrm{Y}}=$ Mean of the score in post-test (experimental group 2)
$\mathrm{SD}_{\mathrm{X}}=$ Standard deviation of experimental group
$S D_{Y}=$ Standard deviation of control group
$\mathrm{N}_{1}=$ Number of the sample in pre-test
$\mathrm{N}_{2}=$ Number of the sample in post-test
$1=$ the constant number

The $t$-table has the function to see if there is a significant difference among the mean of the score of both experimental group 1 and experimental
group 2. The $t$-obtained value is consult with the value of $t$-table at the degree of freedom $(\mathrm{df})=(\mathrm{N} 1+\mathrm{N} 2)-2$ which is statistically hypothesis:
$\mathrm{H}_{\mathrm{a}}$ : to > t-table
$\mathrm{H}_{0}$ : to < t-table
$\mathrm{H}_{\mathrm{a}}$ is accepted if to >t-table or there is effect after giving the treatment Save the Last word for Me and Listen-Read-Discuss (LRD) Strategies toward students' reading comprehension.
$H_{o}$ is accepted if to< $t$-table or there is no effect after giving the treatment Save the Last word for Me and Listen-Read-Discuss (LRD) Strategies toward students' reading comprehension.

### 3.8.2 Paired Sample t-test Non-Independent Sample t-t test

Non-Independent Sample $t-t_{\text {test }}$ is also knows as Paired-Sample $t_{\text {test. }}$ The writer uses this formula to obtain the results of the second and third hyphotheses that is to find out whether there is a significant effect of using Save the Last Word for Me strategy and LRD strategy on students' reading comprehension at the second grade students' of SMPN 23 Pekanbaru. Gay (2000:484) states that $t$-test for non-independent sample uses to compare a single groups' performance on pre-test and post-test or on two different treatments. To obtain the data, SPSS 21 is used.

Afterward, it is better to find the effect size of T-test by following formula:
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

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© Hak cipta milik UIN Suska Riau
$\tilde{\eta}^{2}=\frac{t^{2}}{t^{2}+n-1}$
eta squared $=\tilde{\eta}^{2} \times 100 \%$
Where:
eta squared : Coefficient effect
$\tilde{\eta}^{2} \quad: \quad$ Coefficient
Table 3.5
The Classification of Eta Squared Score

| Score | Cohen's Standard |
| :---: | :---: |
| $0.0-0.2$ | Small |
| $0.3-0.5$ | Medium |
| $0.6-0.8$ | Large |

