## CHAPTER III <br> METHOD OF RESEARCH

## A. Research Design

The type of this research was an experimental research. According to L.R Gay and Airasian (2000, p. 367), experimental research is the only type of research that can hypotheses to establish cause and effect relationship. The design of this research was a quasi - experimental design. A quasiexperimental design in here is by using the pretest-post-test non-equivalent group design (Lois, 2007, p. 283).

In this design, the writer used two classes as the sample; control group and experimental group. Both groups got a pretest and posttest. Only the experimental group received the treatment by using One-Word Summaries strategy. While control class used conventional strategy/technique. However, the materials that have been given to each group were the same. The design of research can be illustrated as follows:

## B. The Time Location of the Research

This research was conducted at the Eleventh Grade of State Senior High School 2 Tambang. It is located at jl. Bupati Desa Kualu, Kec. Tambang, Kampar. It was conducted from August to September 2017.
C. The Subject and the Object of the research

The subject of this research was the Eleventh students of State Senior High School2 Tambang. The object of this research was the use of One-Word Summaries strategy for reading comprehension of narrative text.

## D. The Population and The Sample of The Research

## 1. Population of The Research

The population of this research was the Eleventh Grade students of State Senior High School 2 Tambang. The number of the Eleventh Grade students of State Senior High School 2 Tambang was 323, which consisted of ten classes.

Table III. 2
The Population of the Eleventh Grade Students at Senior High School 2 Tambang

| NO | CLASS | TOTAL |
| :---: | :---: | :---: |
| 1 | XI IPA 1 | 30 |
| 2 | XI IPA 2 | 30 |
| 3 | XI IPA 3 | 33 |
| 4 | XI IPA 4 | 30 |
| 5 | XI IPA 5 | 30 |
| 6 | XI IPA 6 | 30 |
| 7 | XI IPS 1 | 36 |
| 8 | XI IPS 2 | 35 |
| 9 | XI IPS 3 | 35 |
| 10 | XI IPS 4 | 34 |
| Total |  | $\mathbf{3 2 3}$ |

## 2. Sample of The Research

Based on the population above, this research used cluster sampling technique. According to Gay, cluster sampling randomly selects group, not individuals. All the members of select groups have similar characteristics.

Therefore, the writer made some lottery and all of the second class took a lottery, if the class got a lottery "experiment" and "control" the class was representative enough to be sample of this research. Finally, the writer took 2 classes (experimental class and control class) as sample of the research, XI IPA II as an experimental class and XI IPA I as a control class. The total sample was 60 students.

Table III. 3 Sample of the research

| No | Class | Students |
| :---: | :---: | :---: |
| 1 | XI IPA 1 | 30 |
| 2 | XI IPA 2 | 30 |
| Total |  | $\mathbf{6 0}$ |

## E. The Technique of Collecting Data

In this research, the writer used test as instrument to collect the data. The test was used to find out the students' comprehension in reading. The data of this research were the score of the students' reading comprehension obtained by using reading test. There are numerous ways of testing reading comprehension. According to Heaton (1988, p. 107), there are seven ways in assessing reading comprehension. They are matching items, true/false items, multiple choice items, completion items, rearrangement items, cloze procedures and open-ended and miscellaneous items. In this research, the writer used multiple choice test. It was one of the suitable tests for testing students' reading comprehension. The following table presents the blue print of question items used in collecting the data.

Table III. 4
Blue Print of Reading Test

| NO | INDICATORS | TOTAL <br> ITEM | NUMBER OF <br> ITEM |
| :---: | :--- | :---: | :---: |
| 1. | The students are able to <br> find main idea of <br> narrative text | 5 items | $1,6,11,16,21$ |
| 2. | The students are able to <br> identify the characters <br> from narrative text | 5 items | $2,7,12,17,22$ |
| 3. | The students are able to <br> identify synonym and <br> antonym of word in the <br> text | 5 items | $3,8,13,18,23$ |
| 4. | The students are able to <br> identify pronominal <br> reference of the text | 5 items | $4,9,14,19,24$ |
| 5. | The students are able to <br> identify generic structure <br> of narrative text | 5 items | $5,10,15,20,25$ |

The test was given to each group after and before giving the treatment.
The test was divided into two phases:

1. Pre-Test

Pre-test was used to collect the data about students' reading comprehension of narrative text before they were taught by using OneWord Summaries strategy. It was given to both experimental and control classes.
2. Post-Test

Post-test was used to collect the data about students' reading comprehension of narrative text after they were taught by using One-Word Summaries Strategy. It was given to both experimental and control classes.

The test consisted of 25 items questions. Each text consisted of 5 questions designed based on the indicators of reading comprehension such as; Identify main idea, identify characters, identify synonym and antonym of word, find pronominal reference, and identify generic structure from the reading text. The writer then distributed pre and post test to experimental and control classes.

After the students did the test, then the writer took the total score from the result of the reading comprehension test. According to Arikunto (2013, p. 281), the classification of the students' score can be seen below:

Table III. 5
The Classification of Students' Score

| Score | Categories |
| :---: | :---: |
| $80-100$ | Very Good |
| $66-79$ | Good |
| $56-65$ | Enough |
| $40-55$ | Less |
| $30-39$ | Fail |

F. The Validity and Reliability of the Test

## 1. The Validity of the Test

Research is always related to a measurement. According to Brown (2004, p. 3), a test is a method to measure a person's ability, knowledge, or performance in a given domain. The more explanation is also explained by Brown that one of criteria for testing a test is validity. A valid test should be appropriate, meaningful, and useful in term of the purpose of the assessment. There are three kinds of validity, they are content validity, criterion validity, and construct validity Gay, (2000, p.163-167).

In this research, the writer used content validity to prove the validity of the test. Before giving a test to the experimental and control classes, the writer gave a try out, the purpose of try out was to obtain validity and reliability to the test. The level of difficulty was used to show how "easy" or "difficult" an item is as stated by Arikunto (2013, p. 223), the formula of item difficulty is as follows:

$$
P=\frac{B}{J S}
$$

Where
P : index of difficulty
B : the number of correct answers
JS : the number of students taking the test

The standard level of the difficulty used is $>\mathbf{0 . 3 0}$ and $<\mathbf{0 . 7 0}$, it means that the level of difficulty is between 0.30 and 0.70 and it is rejected if the level of difficulty below 0.30 (difficult) and over 0.70 (easy). Then, the proportion of correct is represented by "p", whereas the proportion of incorrect is represented by " q ", it can be seen in the following tables.

Table III. 6
The Students' ability to Find Main Idea of text

| Variable | The students are able to find main idea of |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| narrative text | N |  |  |  |  |  |
| Item No. | 1 | 6 | 11 | 16 | 21 |  |
| Correct | 20 | 19 | 16 | 17 | 12 | 30 |
| P | 0.67 | 0.63 | 0.53 | 0.57 | 0.40 |  |
| Q | 0.33 | 0.37 | 0.47 | 0.47 | 0.60 |  |

Based on the table, it was found that the proportion of students' reading comprehension for Finding main idea of text was fair. Some of the students could answer correctly and some of the students could not. The table shows that the proportion of correct answer for finding main idea of test item number 1 was 0.67 , the proportion of correct answer for test item number 6 was 0.63 , the proportion of correct answer for test item number 11 was 0.53 , the proportion of correct answer for test item number 16 was 0.57 and the proportion of correct answer for test item number 21 was 0.40. Then, based on the standard level of difficulty, all items for finding main idea or " p " were $\geq 0.30$ and $\leq 0.70$. So, the items of finding main idea were accepted.

Table III. 7
Students' ability to identify generic structure of text

| Variable | The students are able to identify the <br> generic structure of narrative text |  |  |  |  | N |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 7 | 12 | 17 | 22 |  |
| Correct | 12 | 17 | 19 | 15 | 13 | 30 |
| P | 0.40 | 0.57 | 0.63 | 0.50 | 0.47 |  |
| Q | 0.60 | 0.43 | 0.37 | 0.50 | 0.57 |  |

The table shows that the proportion of students for identifying the generic structure is the same as the table before, it is still on the average level. It was found that the proportion of correct answer for identifying the generic structure of test item number 2 was 0.40 , the proportion of correct answer for test item number 7 was 0.57 , the proportion of correct answer for


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test item number 12 was 0.63 , the proportion of correct answer for test item number 17 was 0.50 and the proportion of correct answer for test item number 22 was 0.47 . Then, based on the standard level of difficulty, all items for identifying generic stucture or " $p$ " were $\geq 0.30$ and $\leq 0.70$. So, the items of identifying generic stucture were accepted.

Table III. 8
Students' are able to identify characters of the text

| Variable | The students are able to identify <br> characters of the text |  |  |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 3 | 8 | 13 | 18 | 23 |  |
| Correct | 11 | 10 | 20 | 18 | 15 | 30 |
| P | 0.37 | 0.33 | 0.67 | 0.60 | 0.50 |  |
| Q | 0.63 | 0.67 | 0.33 | 0.40 | 0.50 |  |

From the table above, it was found that the proportion of identifying characters of the test was still fair, the proportion of test item number 3 was 0.37 , the proportion of correct answer for test item number 8was 0.33 , the proportion of correct answer for test item number 13 was 0.67 , the proportion of correct answer for test item number 18 was 0.60 , and the proportion of correct answer for test item number 23 was 0.50 . Then, based on the standard level of difficulty, all items for identifying characters of the text or "p" were $\geq 0.30$ and $\leq 0.70$. So, the items of identifying characters of the test were accepted.


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Table III. 9
Students' are able to identify synonym and antonym of text

| Variable | The students are able to identify synonym <br> and antonym of the text |  |  |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 4 | 9 | 14 | 19 | 24 |  |
| Correct | 15 | 12 | 20 | 13 | 13 |  |
| P | 0.50 | 0.40 | 0.67 | 0.43 | 0.43 |  |
| Q | 0.50 | 0.60 | 0.33 | 0.57 | 0.57 |  |

Based on the table, the proportion of identifying synonym and antonym of the test was still fair. It was obtained that the proportion of correct answer for identifying synonym and antonym of the test of test item number 4 was 0.50 , the proportion of correct answer for test item number 9 was 0.40 , the proportion of correct answer for test item number 14 was 0.67 , the proportion of correct answer for test item number 19 was 0.43 , and the proportion of correct answer for test item number 24 was 0.43 . Then, based on the standard level of difficulty, all items for identifying synonym and antonym of the test or " p " were $\geq 0.30$ and $\leq 0.70$. So, the items of identifying synonym and antonym of the test of the words were accepted.

Table III. 10
Students' are able to identify pronominal reference of text

| Variable | The students are able to identify <br> pronominal reference of narrative text |  |  |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 5 | 10 | 15 | 20 | 25 |  |
| Correct | 18 | 13 | 19 | 12 | 19 | 30 |
| P | 0.60 | 0.43 | 0.63 | 0.40 | 0.63 |  |
| Q | 0.40 | 0.57 | 0.37 | 0.60 | 0.37 |  |

From the table above, it was found that the proportion of identifying pronominal reference was lower than four tables before. It happened because most of the students did not know pronominal reference. It was obtained that the proportion of correct answer for identifying pronominal refernce of test item number 5 was 0.60 , the proportion of correct answer for test item number 10 was 0.43 , the proportion of correct answer for test item number 15 was 0.63 , the proportion of correct answer for test item number 20 was 0.40 and the proportion of correct answer for test item number 25 was 0.63 . Then, based on the standard level of difficulty, all items for identifying pronominal reference or " $p$ " were $\geq 0.30$ and $\leq 0.70$. So, the items of identifying pronominal references were accepted.

## 2. The Reliability of The Test

According to Cohen (2000, p. 117), reliability is essentially a synonym for consistency and replicability over time, over instruments and over groups of respondents. For research to be reliable it must demonstrate that if it is to be carried out on a similar group of respondents in a similar context (however defined), then similar results would be found.

Suharsimi (2009, p. 146) states that it is possible for the test is reliable but is not valid. Whereas the test is valid automatically, it is reliable. To obtain the reliability of the test given, the writer used Cronbach's alpha. In this research, the reliability of the tests was processed by using SPSS (Statistical Product and Service Solution) 23 Version, it can be seen in the following table:

# Table III. 11 Reliability Statistics 

| Cronbach's Alpha | N of Items |
| :---: | :---: |
| .553 | 2 |

Based on the table above, the "Cronbach's Alpha" column are 0.553 , it was $0.553(0.553>0.41)$. It can be concluded that the data was reliable. According to Arikunto (2009), the reliability for good classroom achievement tests are expected to exceed 0.0 and closed 1.00 . He stated that reliability of test is considered as follows:
0.0-0.20 : reliability is poor
0.21-0.40 : reliability is satisfactory
0.41-0.70 : reliability is good
0.71-1.0 : reliability is excellent

In short, the reliability of the tests as calculated above (.553) was categorized into excellent level.

Techniques of Data Analysis

## 1. The Normality of the Test

In order to know whether the data have normal distribution or not, the writer used Kolmogorof-Smirnov method as the formula to analyze the data. In this research, the writer analyzed the data by using SPSS (Statistical Product and Service Solutions) 23 version program.

## Hypothesis:

$\mathrm{H}_{\mathrm{o}} \quad$ : The data are normally distributed
$\mathrm{H}_{\mathrm{a}} \quad$ : The data are abnormally distributed


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## Testing Criteria:

If the probability $(\mathrm{sig})>0.05 \mathrm{H}_{0}$ is accepted
If the probability (sig) $<0.05 \mathrm{H}_{0}$ is rejected
The result of normality of pre test score in experimental and control classes was computed by using SPSS version 23. It is presented in the following table:

Table III. 12
Tests of Normality

|  | Kolmogorov-Smirnov $^{\mathrm{a}}$ |  |  |
| :--- | ---: | ---: | ---: |
|  | Statistic | df | Sig. |
| Experimen | .145 | 30 | .108 |
| t | .146 | 30 | .101 |
| Control |  |  |  |

a. Lilliefors Significance Correction

Based on the table III. 11 above, the significance value of post-test experimental and control classes were 0.108 and 0.101 . Because of sig $>0.05(0.108>0.05)$ and $(0.101>0.05)$, the initial data of experimental and control classes were normally distributed.

## 2. The Homogeneity of the Test

Furthermore, in order to know whether the objects researched had the same variance or not, the writer needs to describe the homogeneity analysis. Data homogeneity of variance test was calculated by using SPSS version 23. The SPSS result for Levene test was interpreted as follows:

## Testing Criteria:

If the probability $(\mathrm{sig})>0.05$, the data are homogenous.
If the probability (sig) < 0.05, the data are not homogenous.


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The result of homogeneity test of pre-test data or Levene test was computed by using SPSS version 23 presented in the following table:

Table III. 13
Test of Homogeneity of Variances

| Levene <br> Statistic | df1 | df2 | Sig. |
| ---: | :---: | :---: | :---: |
| 1.250 | 6 | 21 | .322 |

Based on the table above, it was found that the value of significance (sig.) was 0.322 . According to Pallant (2010, p. 2070), data are homogeneous or variant when the value Sig. is higher than 0.05. Based on the table, it was clear that Sig. is higher than 0.05 which indicates the homogeneity of the data. The comparison can be stated that $0.322>0.05$

After knowing that the data were normally distributed and having the homogenous variance. The writer needs to find out whether there is or no a significant difference between using One-Word Summaries Strategy for students' reading comprehension and without using it of narrative text at the eleventh grade of State Senior High School2 Tambang, the data were analyzed statistically. In this research, the writer used T-test formula (independent sample $t$-test) and it was calculated by using software SPSS 23 Version. The SPSS result of Independent Sample T-test can be interpreted as follows:

## Hypothesis:

## $\mathrm{H}_{\mathrm{o}} \quad$ : Variance population is identical

$\mathrm{H}_{\mathrm{a}}$ : Variance population is not identical





## Testing Criteria:

If the value in Sig. (2-tailed) $\leq 0.05$, then $H_{a}$ is accepted.
If the value in Sig. (2-tailed) $\geq 0.05$, then $\mathrm{H}_{0}$ is accepted.
Furthermore, in order to find out whether or not there is a significant effect of using One-Word Summaries Strategy on students' reading comprehension of narrative texts, the writer needs to provide the effect size or (Eta Squared). Then, it can be interpreted based on the following criteria (Cohen, et all., 2007, p. 521).

0-0.20 = weak effect
0.21-0.50 $=$ modest effect
0.51-1.00 $=$ moderate effect
$\geq 1.00 \quad=$ strong effect

