## CHAPTER III

## RESEARCH METHOD

## A. Research Design

The design of this research was Experimental research. Gay (2012: 249) says that an experiment typically involves a comparison of two groups. They are experimental group and control group. The group experimantal design was true experimental designs (the pretest-posttest control group design, the post test-only control group design). In this research used the post test only experimental group and control group design.

In experimental group, the researcher gave some treatments by using Dictogloss technique where as in control group gave conventional technique during this research. The design of this research can be described as follow:

Table 3.1The Research Design of This Research

| Group | Treatment | Post test |
| :---: | :---: | :---: |
| Experimental class | X | O |
| Control class $P A A$ | -T | O |

X: Treatment (teaching through Graphic Organizers and Dictogloss Techniques)

O: Post test for Experimental Group and Control Group

## B. Population and Sample

## 1. Population

Gay $(2000: 122)$ state that population is the group of interest to the researcher, the group to which she or he would like the results of the study to be generalizable. In the other words population is the total number of students on a research.

The population of this research was students of Senior High School Koto XI Tarusan which consist of six classes of class X. The population of this research was 240 students. The distribution of the population can be seen in the table below.

Table 3.2Population of the Research

| No | Class | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1 | X1 | 20 | 15 | 35 |
| 2 | X 2 | 20 | 18 | 38 |
| 3 | X 3 | 20 | 20 | 40 |
| 4 | X 4 | 22 | 20 | 42 |
| 5 | X 5 | 21 | 13 | 34 |
| 6 | X 6 | 19 | 21 | 40 |

From the table above we can conclude that total of population is 240 students, consist of 6 classes, namely: X-1, X-2, X-3, X-4, X-5, X6.

After deciding population, the researcher used SPSS to show normality and homogeneity from the six classes above. Then to show the sample representative or not the researcher does the next step:
a. Collecting the writing test score data from all six grade students in first semester.
b. Test of Normality, Normality test had an objective to know the population normal or not. The researcher used kolmogrov Smirnov and Shapiro Wilk to do normality test, it is SPSS (Statistical product and service solution) test. The data would be normality tests, if every class was significant or more than 0.05 .

Table 3.3 Tests of Normality

|  | VAR00002 | Kolmogorov-Smirnov ${ }^{\text {a }}$ |  |  | Shapiro-Wilk |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Statistic | Df | Sig. | Statistic | df | Sig. |
|  | x1 | . 205 | 35 | . 001 | . 921 | 35 | . 015 |
|  | x2 | . 203 | 35 | . 001 | . 942 | 35 | . 065 |
| VAR000 | x3 | . 136 | 37 | . 080 | . 944 | 37 | . 062 |
| 01 | x4 | . 149 | 36 | . 043 | . 951 | 36 | . 116 |
|  | x5 | . 209 | 34 | . 001 | . 907 | 34 | . 007 |
|  | x6 | . 127 | 35 | . 169 | . 969 | 35 | . 420 |

a. Lilliefors Significance Correction

From the analysis above, it showed that there were all classes (X1 until X6, ) that were normal beacause the data was significant or more than 0.05 . It means that all of classes could be as sample in this research.

Based on the graphics Q-Q Plot, if the data around and near with the line, it means, the data was normal. Q-Q Plot can see in table below:


Normal Q－Q Plot of VAROOOO1
for VARO0002＝$\times 2$



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Normal Q－Q Plot of VAROOOO1



Normal Q-Q Plot of VAR00001
for VAR00002 $=\times 5$

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Normal Q-Q Plot of VAR00001

c. Test Homogeneus Variances

After doing the normality test and got the normal data. Then researcher was done the homogeneus variation test. This test had an objective as to know are the sample homogeny or not. This test used SPSS with level test, if the data significant or the data more than 0.05 it mean the data was homogeneus.

Table 3.4 Test of Homogeneity of Variance

|  |  | Levene Statistic | df1 | df2 | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VARO 0001 | Based on Mean | 24.060 | 5 | 206 | . 199 |
|  | Based on Median | 16.514 | 5 | 206 | . 547 |
|  | Based on Median and with adjusted df | 16.514 | 5 | 54.128 | . 548 |
|  | Based on trimmed mean | 21.686 | 5 | 206 | . 222 |

## 2. Sample

Gay (2012:130) asserts that a good sample is one that is representative of the population from which it was selected. A sample is made up the individuals, items or events selected from a larger group referred to as population. The researcher needed two groups (classes) to act the research sample.

To get the representative sample of this research, the researcher used cluster sampling technique. Gay (2012: 136) stated that clustering sampling technique is the way to selecting a sample when the researcher is unable to obtain a list of all members of the population cause of they are very large with similar characteristics is a cluster.

In this case, the researcher took class $\mathrm{X}-1$ and $\mathrm{X}-5$ as the sample, beside that the students in both of class have similar knowledge of English since they are taught by the same teacher and material. In determining this class as sample, it was chosen following the procedure of flipping coin to device class experiment and control, the result of flipping coin researcher gave $\mathrm{X}-1$ as experimental group, and class X-5 as control group.

## C. Instrumentation of the Research

The instrument for this research is the form of written test. The researcher would use the test type from Jacob's criteria (1981:90) in scoring students' writing test. The blueprint of writing test can be seen in the following below:

Table 3.5. Blueprint of Writing Test

| NO | Component of Writing test | Indicator | Topic | Number of Item |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Recount text |  |
| 1. | Content | The students are able to | 1. Good experience | 1 |
| 2. | Organization | write down a | 2. Bad experience | 1 |
|  |  | paragraph in | - 3. My last holiday | 1 |
| 3. | Vocabulary | paragraph in good | 4. my experience when I was a | 1 |
|  | Language | content, | child | 1 |
| 4. | use | organization, vocabulary, | 5. My last birthday <br> 6. My Old Friend | 1 |
| 5. | Mechanic | language | 7. Visiting the zoo | 1 |
|  | Mechanic | use, and mechanic. | 8. My Lucky day | 1 |
|  |  |  | Total | 8 |

From the table above, the students would ask to write a recount text based on the topics given. They would allow to chosen one of eight topics that they like most. The eight topics are talk about experience, such as talk about good/bad experiences. The students would write their experience with past tense.

## D. Time and Place

This research will be done at SMAN 1 Koto XI Tarusan. This place was chosen because the researcher had ever do observation there. The treatment had been conducted at the class X students of second semester.

## E. Technique of Collecting Data

## 1. Test

The data of this research were collected by using writing test. The data of this research were the student's score in post-test. Researcher gives five times treatment and post-test is given at the end of the research to both of the classes. The test was given to the experiment and control group as a sample on the sixth meeting. The students who were in experiment group and control group got the same test. Sudents are asked to write the simple recount text based on the topic was given. Teacher gives instruction test, students are asked to choose each topic through work sheet of writing test. After finishing the test, the students are asked to collect their writing to their pathner. Finally the writing text is assessed and analyzed.

## 2. Scoring

The scoring of this research based on students skill in writing such as; content, organization, vocabulary, language use and mechanic. Researcher was used scoring technique of Jacobin this research to assess students' writing.

## F. Procedures of Research

The researcher would use two classes to get data. These two classes did taught by using the same material. However, they would be taught by using different treatment. The researcher was implemented this procedure:

There were some steps to conduct the research such as preparation, application, and finishing.

1. Preparation.

The researcher collected the data that relate with preparation steps:
a. Selecting the material
b. Preperaing nefidit AM BONJOL
c. Preparing the lesson plan based on the curriculum
2. Application steps.

This step was conducted in three teaching activities. The first activities were introduction which included greeting, checking attendance, apperception, and motivation. The second was main activities included pre-writing, main activity and post-writing. The last activities were post activities included concluding the material and evaluation.

Table 3.6 The Treatment Procedure for Experimental and Control Class

| Experimental Group | Control group |  |
| :---: | :---: | :---: |
| Pre-teaching <br> 1. Greeting <br> 2. Check attendance <br> 3. Giving apperception <br> 4. Giving motivation | 1. Greeting <br> 2. Check attendance <br> 3. Giving apperception <br> 4. Giving motivation |  |
| Main -Teaching <br> 1. Teacher gives question based on the topic to build students background knowledge <br> 2. Students focus on definition, generic structure, language features and grammar of Recount Text | Main - Teaching <br> 1. Teacher gives question based on the topic to build students background knowledge <br> 2. Students focus on definition, generic structure, language features and grammar of Recount Text | BKOF <br> (10 Menit) |
| Exploration <br> a. The teacher identify the main ideas <br> b. The teacher cluster of group words and ideas that are related <br> c. The teacher show type of organizers <br> d. the teacher | Exploration <br> 1. Teacher explain about Recount Text <br> 2. Teacher give another example of Recount text and try to identify the element of the text | MOT <br> (15 Menit) |


| constructed graphic organizers on recount text <br> e. preparation <br> 1. Teacher ask students make a group |  |  |
| :---: | :---: | :---: |
| Elaboration <br> 1. Dictation <br> a. Teacher read a story, news and others. <br> b. The teacher ask Students to listen and taking a note or make outline | Elaboration <br> a. Then the teacher instructs them to write the Recount text and pay attention several elements of the text such as vocabulary, organization, generic structure, language feature and mechanic. <br> b. After the students finish, asks them to collect their paper | JKOT <br> (30Menit ) |
| Confirmation <br> 1. Reconstruction <br> a. The teacher Ask the students to reconstruct a text or original text <br> 2. Analysis and correction <br> a. The Teacher ask students together asses what they written before. <br> b. Teacher guide students to more action | Confirmation <br> 1. Teacher ask the students who want to share their written in front of class <br> 2. Teacher give feedback/comment or reward on students presentation. | ICOT <br> (20Menit ) |


a. Collecting the data (students' writing)
b. Processing data towards experiment and control class by using T-test formula.
c. Getting finding

Taking conclusion and proposing suggestion

## G. Technique of Data Analysis

After the data have been collected, the researcher was copy the data and distributed to the other scorers (Writing Test). After that the researcher and
other scorers were find the mean score of both classes, experimental and control class not only base on writing components (content, text organization, language use, and mechanics). Then the researcher would be collects the mean score from every scorer. Last, the researcher was used formula that suggested by Gay and Arikunto (2000:485) formula as follow:

$$
\bar{x}_{1}=\frac{\sum x_{1}}{n_{1}} a n d \bar{x}_{2}=\frac{\sum x_{2}}{n_{2}}
$$

With:
$\bar{x}_{1} \quad$ : Mean score of experiment group
$\sum x_{1} \quad:$ Sum of scores in experiment group
$n_{1} \quad:$ Number of students in experiment class
$\bar{x}_{2} \quad:$ Mean score of control group
$\sum x_{2} \quad:$ Sum of scores in control group
$n_{2} \quad:$ Number of students in control group.
In figuring out the mean score, the researcher did get the data by using the formula above. The sum of students' score was divided with the number of students in the class. The formula was applied in experimental and control group classes.

After that, the researcher would finds out the $t$-test score of both classes. The formula of t -test is suggested by Sudjana (2005:239):
$\mathrm{t}=\frac{\overline{X_{1}}-\overline{X_{2}}}{s \sqrt{\frac{1}{n_{1}}+\frac{1}{n_{2}}}}$
Standard deviation formula as follow:
$S=\sqrt{\frac{\left(n_{1}-1\right) S_{1}^{2}+\left(n_{2}-1\right) S_{2}^{2}}{n_{1}+n_{2}-2}}$

Variance as follow:
$\mathrm{S}_{1}{ }^{2}=\frac{n\left(\sum x 1^{2}\right)-\left(\sum_{X} 1\right) 2}{n(n-1)} \quad$ and $\quad \mathrm{S}_{2}{ }^{2}=\frac{n\left(\sum x 2^{2}\right)-\left(\sum_{x} 2\right) 2}{n(n-1)}$
In this case:
$\mathrm{t}=$ Value of $t$-observed
$\bar{x}_{1}=$ Mean score of experimental class
$\bar{x}_{2}=$ Mean score of control class
$n_{1}=$ Number of students in experimental class
$n_{2}=$ Number of students in control class
S = Standard deviation of both group
$S_{1}^{2}=$ Variance experimental group
$S_{2}^{2}=$ Variance control class


