## CHAPTER III

## RESEARCH METHOD

## A. The Research Design

The resercher used quasi-experimental design in experimental design. Cohen (2007.p.282) stated that quasi-experiment is a description when being applied to much educational research where the random assignment of schools and classroom is quite impracticable. According to Cresswell (2008.p.309) Quasi Experiment is used when the writer needs to use intact group. The research design form was the pre-test and post-test non-equivalent group design. This design should be familiar, like pre-test and post-test with control group design. Two treatments were pre-test, a treatment, and post-test. There were two variables used in this research. The first was Graffiti Board strategy symbolized as $(\mathrm{X})$ and the second was speaking ability symbolized as $(\mathrm{Y})$ which it involved two groups, an experimental group and a control group. According to Louis, the type of this research can be designed as follows:

Table III. 1
The Research Design

| Group | Pre-test | Treatment | Post-test |
| :---: | :---: | :---: | :---: |
| Experimental | $\mathrm{O}_{1}$ | X | $\mathrm{O}_{2}$ |
| Control | $\mathrm{O}_{3}$ | - | $\mathrm{O}_{4}$ |

Where:
X : Treatment
$\mathrm{O}_{1} \quad$ : Pre-test of Experiment Group
$\mathrm{O}_{2}$ : Post-test of Experiment Group
$\mathrm{O}_{3}$ : Pre-test of Control Group
$\mathrm{O}_{4}$ : Post-test of Control Group

## B. The location and Time of the Research

The reaseach was conducted at the tenth grade students of Vocational High School 1 Kandis. The research was done four weeks, started on December to February 2017

## C. The Subject and Object of the Research

1. The subject of the research

The subject of this research was the tenth grade students of
Vocational High School 1 Kandis, in the academic year of 2016/ 2017.
2. The object of the research

The object of this research was the Graffiti Board strategy and speaking skill.

## D. The Population and Sample of the Research

The population of this research was the tenth grade students at vocational high school 1 Kandis, It had 6 classes which consisted Tekni Komputer Jaringan (TKJ) 1 by 30 students, Tekni Komputer Jaringan (TKJ) 2 by 3 students Admistrasi Perkantoran (AP) 1 by 31 students, Admistrasi

Perkantoran (AP) 2 by 29 students, Akuntansi (AK) 1 by 35 students, Akuntans (AK) 2 by 31 students. The total number of the tenth grade students at vocational high school 1 Kandis was 186 students.

Table III. 2
The Total Population of Tenth Grade Students at Vocational High School 1 Kandis

| No | Classes | Total |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Tekni Komputer Jaringan (TKJ) 1 | 30 |  |  |
| 2 | Tekni Komputer Jaringan (TKJ) 2 | 30 |  |  |
| 3 | Admistrasi Perkantoran (AP) 1 | 31 |  |  |
| 4 | Admistrasi Perkantoran (AP) 2 | 29 |  |  |
| 5 | Akuntansi(AK) 1 | 35 |  |  |
| 6 | Akuntansi (AK) 2 | 31 |  |  |
| Total |  |  |  | 186 |

The strategy used in taking sample was cluster random sampling. According to L.R Gay (2000.p.129), cluster sampling randomly selects groups, not individuals. Having the sample, the writer used lottery by passing out the small rolled paper marked by the sequence name of the class. The population above was large enough to be all taken as sample of the research. Based on the design of the research, the researcher took two classes as the sample of this research. The classes were Tekni Komputer Jaringan (TKJ) 2 as control class and Tekni Komputer Jaringan (TKJ) 1 as experimental class. These classes were decided by using cluster-random sampling. The classes consisted of 60 students in
which Tekni Komputer Jaringan (TKJ) 2 consisted of 30 students and Tekni Komputer Jaringan (TKJ) 1 consisted of 30 students.

Table III. 3
The Sample of the Research

| No | Class | Type | Students |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Male |  |  |
| 1 | X TKJ 1 | Experimental Class | 13 | 17 | 30 |
| 2 | X TKJ 2 | Control Class | 11 | 19 | 30 |
| Total |  |  |  |  | 60 |

## E. The Technique of Collecting Data

To obtain the data needed to support this research, the researcher used two kinds of data collecting technique, observation and oral test. The test was done twice, before and after giving the treatment intended to obtain the students' speaking ability of the tenth grade at Vocational High School 1 Kandis.

## 1. Observation

The researcher used observation list to get the data about the effect of using Graffiti Board strategy on speaking ability. According Cohen (2007.p.396) observation as a research process is that it offers an investigator the opportunity to gather 'live' data from naturally occurring social situations. The aspects assessed were Vocabulary, Pronunciation, Fluency, and Grammar. The researcher used observation list and asked the teacher of Vocational High School 1 Kandis as observer. It was done to make sure that the strategy was given procedurally.

## 2. Oral Test

The type of the test was oral test by giving a presentation. The test was given to the experimental class and the control class in order to know the effect of using Graffiti Board strategy on Speaking skill of tenth grade students at Vocational High School 1 Kandis.

The data can be divided into two classes, the experimental and control scores. The researcher used independent T-Test from SPSS to analyze the effect of using Graffiti Board strategy. In this research, the researcher used two raters to get the score of the students. There were pre-test and post-test at control class and pre-test and post-test at experimental class. In other words, the students' oral productions was recorded, analyzed, and scored. The scoring process was done by two raters who acted out of the writer. The data of this research was obtained from pre-test and post-test. The data were collected through the following procedures:

1. The students were given pre-test and post-test in oral presentation.
2. The students' speaking was recorded by the writer and was backed up DVD. Then it was collected to evaluate the appropriate accent, grammar, vocabulary, fluently, and comprehension.
3. The researcher used two raters to score the students' speaking ability.
4. The researcher collected and summed up raters' score to get each student's score.

Table III. 4
Speaking Assessment

| Aspect | Score | Requirement |
| :---: | :---: | :---: |
| Grammar | 1 | Errors in grammar are frequent, but speaker can be understood by a native speaker used to deling with foreigners attempting to speak his language. |
|  | 2 | Can usually handle elementary custructions quite accurately but does not have thorough or confident control of the grammar. |
|  | 3 | Control of grammar is good. Able to speak the language with sufficient structural accuracy to participate effectively in most formal and informal conversations on practicial, social, and professional topics. |
|  | 4 | Able to use the language accurately in all levels normally partinent to professional needs. Error in grammar are quite rate. |
|  | 5 | Equivalent to that of an educated native speaker. |


| Aspect | Score | Requirement |
| :---: | :---: | :--- |
| Vocabulary | 1 | Speaking vocabulary inadequate to <br> express anything but the most <br> elementary needs. |
|  | 2 | Has speaking vocabulary sufficient <br> to express himself simply with some <br> circumlocutions. |


|  | 3 | Able to speak the language with sufficient vocabulary to participate effectively in most formal and informal conversations on practicial, social and professional topics. |
| :---: | :---: | :---: |
|  | 4 | Can understand and participate in any conversation within the range of his experience with a high degree of percision of vocabulary. |
|  | 5 | Speech on all levels is fully accepted by educated native speakers in all its features including breadth of vocabulary and idioms, colloquialism, and partinent cultural references. |


| Aspect | Reore | Wequirement <br> language experience, can understand <br> simple questions and statements if <br> delivered with slowed speech, <br> repetition, or paraphrase. |
| :--- | :--- | :--- |
| Comprehensions |  | 1 |
|  |  | 2 | | Can get the gist of most conversations |
| :--- |
| of non-technical subjects (i.e., topics |
| that require no specialized |
| knowledge). |


| Aspect | Score | Requirement |
| :---: | :---: | :--- |
| Pronunciation | 1 | Errors in pronunciation are frequent <br> but can be understood by a native |
| speaker used to dealing with |  |  |
| foreigners attempting to speak his |  |  |
| language. |  |  |


| 2 | 2 | Accent is intelligible though often <br> quite faulty. |
| :--- | :--- | :--- |
|  | 3 | Errors never interfere with <br> understanding and rarely disturb the <br> native speaker. Accent may be <br> obviously foreign. |
|  | 4 | Error in pronunciation are quite rare. |
|  |  | Equivalent to and fully accepted by <br> educated native speakers. |

Oral profiency scoring categories (Brown, 2001, pp. 406-407)

The result of speaking was scored by using five components and each component had score or level. Each component had 20 as the highest score. The total of all components was 100 . The specification of the test is as follows:

## Table III. 5

The Specification of the Test

| No | Speaking Skill | The Highest Score |
| :---: | :--- | :---: |
| 1 | Pronunciation | 20 |
| 2 | Grammatical | 20 |
| 3 | Vocabulary | 20 |
| 4 | Fluency | 20 |
| 5 | Comprehension | 20 |
|  | Total | 100 |

After the students did the test, then the researcher took the total score from the result of the reading comprehension test. According to Arikunto (2013: 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 Technique of Data Analysis

In this research, the data were analyzed by using statistic software which is Statistical Product and Service Solutions (SPSS) 17 version for the independent T-Test. The result of $t$-test analyzing could be seen on the SPSS output. According to Gay and Airasian (2000.p.383) t-test is one of the statistics tests used to determine whether two means are significantly different at a selected probability level.

After computing t -test, it is necessary to obtain the degree of freedom that will be used to determined whether or not the $t$-score should be significant or not, the t -obtain value is compared with the value of the t -table by using degree of freedom. Independent sample T-test is as follows:

$$
\mathrm{df}=\left(\mathrm{N}_{\mathrm{x}}+\mathrm{N}_{\mathrm{y}}\right) 2
$$

Were:
df : the degree of freedom
$\mathrm{N}_{\mathrm{x}} \quad$ : the number of students in experimental class
$\mathrm{N}_{\mathrm{y}} \quad$ : the number of students in control class accepted or there is no significant effect of Graffiti Board strategy on students speaking skill. If $\mathrm{t}_{0}>\mathrm{t}$-table, it means that $\mathrm{H}_{\mathrm{a}}$ is accepted or there is a significant difference of using Graffiti Board strategy on students speaking sklill.

## G. Validity of the Test

Fraenkel and Wallen (2006.p.147) said that the term validity as used in research refered to the appropriate, meaningful, and usefulness of any inferences a researcher draws based on data obtained through the use of an instrument". Furthermore, Gay (2000.p.163-167) states two kinds of validity. They are content validity, and construct validity.

In this research, the researcher used content validity to know the validity of speaking skill test. According to Brown (2003.p.22) content validity is partly a matter of determining if the content that the instruments contains is an adequate sample of the domain of content it is supposed to represent. Thus, the test was given based on the material studied by the students. The material of the test was taken from the textbook used by the tenth grade students of Vocational High School 1 Kandis.

The index of speaking test in this research is based on these categories as follows:

1. The students' skill to produce speech effortless and smooth while describing story. (Fluency)
2. The students' skill to use correct grammar in speaking. (grammar)
3. The students' skill to use proper words or vocabularies to retell story. (vocabulary)
4. The students' skill to express the comprehensible ideas for describing story. (comprehension)
5. The students' skill to produce acceptable pronunciation in speaking. (accent/pronunciation)
