**CHAPTER III**

**RESEARCH METHODOLOGY**

**A. Research Design**

In this research, the researcher used quasi–experimental design. Quasi-experiment included assignment, but not random assignment of participants to group. This is because the experimenter cannot artificially create groups for the experiment.[[1]](#footnote-2) Thus, it is more efficient if the researcher use quasi-experimental design because it is not random participant. We can apply the pretest and posttest design approach to a quasi-experimental design. The researcher assigned intact groups the experimental and control treatments, administer a pretest to both groups, conducted experimental treatment activity with the experimental group only, and then administer a posttest to asses the differences between the two groups.[[2]](#footnote-3) The researcher gave pretest and posttest to both of class group to know the differences between the two groups. The research design can be presented as follows table 1:

**Table 1**

**Pre- and Posttest Design**

|  |  |  |  |
| --- | --- | --- | --- |
| Select Control Class | Pretest | No Treatment | Posttest |
| Select experimental class | Pretest | Experimental Treatment | Posttest  |

In this case, the students were given pre-test to know their ability in writing report text before treatment and post-test after given the treatment. The researcher used two classes, they were the experimental class and the control class. In the experimental class, the researcher used scaffolding technique as the treatment. In control class, the treatment used dictation technique that usually used by the English teacher in teaching learning process.

**B. Variables of the Research**

In this research there are two variables, namely:

1. Independent variable is using scaffolding technique (X)
2. Dependent variable is students’ writing report text ability (Y)

**C. Operational Definition of Variable**

The operational definition of variable used to explain the variables which used in this research to avoid misconception of variable presented in this research.

The operational of variable areas is follows:

1. Scaffolding is a kind of technique that can be used for teaching report text writing ability, where the teacher help the students during the early stages of learning, and then the students takes over an increasingly bigger responsibility as soon if the students can do it.
2. Students’ report text writing ability is the students ability to describe or express ideas and thoughts about a general object in written form whose generic structures consists of identification and description to give information to the readers which the criteria of a good writing including content, organization, vocabulary, language use and mechanics.

**D. Population, Sample and Sampling Technique**

1. Population

According to Setiyadi, all individuals who can be the target in research are called population.[[3]](#footnote-4) Population consists of all possible people who fall into a particular category.[[4]](#footnote-5) Population in this research is all students of the eleventh grade of SMA Pangudi Luhur Bandar Lampung in the academic year of 2018/2019 which consists of 71 students in 3 classes. The table 2 shows the total number of population:

**Table 2**

**The Population of the Eleventh Grade of SMA Pangudi Luhur Bandar Lampung in the Academic year of 2018/2019.**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Class** | **Gender** | **Total** |
| **Male** | **Female** |
| 1 |  XI IPA | 10 | 17 | 24 |
| 2 | XI IPS 1 | 9 | 15 | 24 |
| 3 | XI IPS 2 | 11 | 12 | 23 |
| **Total of the Students** | **71** |

*Source: Document of students’ at the Eleventh Grade of SMA Pangudi Luhur Bandar Lampung.*

1. Sample of the Research

Claire states that, sample is a smaller number of individuals drawn from the total population which can be taken as representative of that population.[[5]](#footnote-6) Arikunto adds that sample is a part of representative of the population that will be investigated.[[6]](#footnote-7) The sample of the research is two classes, one class as the experimental class and another as control class. In SMA Pangudi Luhur of Eleventh Grade consists of three classes and the researcher was take two classes one class as experimental class and another as control class.

1. Sampling Technique

In this research, the researcher used cluster random sampling. Frankel and wallen stated that the selection of groups, or cluster, of subjects rather that individuals is known as cluster random sampling.[[7]](#footnote-8) In this case, the researcher conducted the research at the eleventh grade. The eleventh grade consists of three classes and the researcher selected two classes as the sample. The researcher chose randomly by using a small piece of paper. The name of each class was written in a small piece of paper and then the paper was rolled and shaken. The first paper was an experimental class and then the second paper was control class.

**E. Data Collecting Technique**

To collect the data, the researcher used an instrument that a test which consist of pretest and posttest. The test was used to get the students’ report text writing ability achievement. In this case, the students were given pretest to both classes before the treatment to know the students’ early achievement in report text writing ability. Then the post test was used to know their report text writing ability after the treatment to the experimental class of using scaffolding and the control class used by using dictation technique.

**F. Instrument of the Research**

The instrument of the research was writing test. This test had a purpose to measure the students’ writing ability. The researcher made two instruments, they were pre-test and post-test. The instrument pre-test and post-test were tests to be composed of a report text that consist of 75-100 words in 60 minutes for time allocation.[[8]](#footnote-9) The topics in pre-test were: *Rabbit*, *Lampung City* and *Cactus.* And in post-test the topics were*: Elephants, Jakarta City, Jasmine.*

**G. Research Procedure**

In conducted this research, the researcher applied some procedures as follows:

1. **Planning**
	1. Finding the subject of research

The researcher chose the students of eleventh grade of SMA Pangudi Luhur as a subject of the research. One class was experimental class and one class was control class.

* 1. Designing the instrument of the research

The instrument of this research was writing test. The students got the same instrument for both classes in several topics.

* 1. Administering pre-test

The pre-test was used to find out the students’ ability. Here, the students were assigned to write the report text consisting of 75-100 words in 60 minutes for time allocation. The topics were: *Rabbit*, *Lampung City* and *Cactus.*

* 1. Conducting treatment

The researcher gave treatments in three meetings. In the treatment, the researcher as the teacher was teaching the students of using scaffolding technique in experimental class and using dictation technique in control class.

* 1. Administrating the post test

Post-Test was conducted after giving the treatments. The purpose of the test was to know the students’ report text writing ability. In this test the students was given the topic. Then the students made the report text related to the topic. The topics were: *Elephants,* *Jakarta City,* and *Jasmine.*

1. **Application**

The researcher conducted the research in five meetings for each class. The five meetings consist of several activities as follows:

* 1. One meeting was used for pre-test. The researcher explained about report text and instructing the students to make a report text that consist of 75-100 words to knows students’ report text writing ability before being given the treatment with the topics provided.
	2. Three meetings were used to introduce the material and teaching the technique. In this research, the researcher conducted the treatment by using scaffolding in experimental class and using dictation technique in control class.
	3. One meeting for post-test. The researcher asked to the students to made a report text that consist of 75-100 word in 60 minute to know students’ report text writing ability after being given the treatment with the topics provided. The result of the test items was determined by the validity and reliability analysis of the pre-test. It means that only the valid and reliable test items were used in post-test.

**3. Reporting**

In this step, the researcher collected the data of the pre-test and post-test. After that, the researcher analyzed whether the score of the post test was higher then pre-test. In other words, it was used to know whether scaffolding technique could give a significant influence of students’ report text writing ability. The last point in the research procedure was reporting result this research.

1. **Scoring**

The researcher determined the procedure that used to score students assignment. The higher score is 100. The score was calculated based on the following scoring systems proposed by Christoper Tribble.[[9]](#footnote-10) It can be seen in table 3.

**a. Task Fulfillment/ Content**

|  |  |
| --- | --- |
| 20-17 | **Excellent to very good:** Excellent to very good treatment of the subject, considerable variety of ideas or argument; independent and through interpretation of the topic; content relevant to the topic; accurate detail. |
| 16-12 | **Good to average**: Adequate treatment of topic; some variety of ideas or argument; some independent of interpretation of the topic; most content relevant to the topic; reasonably accurate detail. |
| 11-8 | **Fair to poor:** Treatment of the topic is hardly adequate; little variety of ideas or argument; some irrelevant content; lacking detail. |
| 7-5 | **Very poor** : Inade quate treatment of the topic; no variety of ideas or argument; content irrelevant; or very reacted; almost no useful detail |
| 4-0 | **Inadequate** : Fails to address the task with any effectiveness |

**b. Organization**

|  |  |
| --- | --- |
| 20-17 | **Excellent to very good :**Fluent expression, ideas clearly stated and supported; appropriately organized paragraphs or sections; logically sequenced (coherence); connectives appropriately used (cohesion). |
| 16-12 | **Good to average** : Uneven expression, but main ideas stand out; paragraphing or section organization evident; logically sequenced ( coherence ); some connectives used ( cohesion ) |
| 11-8 | **Fair to poor** : Very uneven expression, ideas difficult to follow; paragraphing/organization does not help the reader; logical sequence difficult to follow (coherence ); connective largely absent ( cohesion ) |
| 7-5 | **Very poor** : Lacks fluent expression, ideas very difficult to follow, little sense of paragraphing/organization; no sense of logical sequence (coherence); connectives not used ( cohesion ) |
| 4-0 | **Inadequate** : Fails to address this of aspect of the task with any effectiveness |

**c. Vocabulary**

|  |  |
| --- | --- |
| 20-17 | **Excellent to very good :** Wide range of vocabulary; accurate word/idiom choice and usage; appropriate selection to match register |
| 16-12 | **Good to average** : adequate range of vocabulary; occasional mistakes in word/idiom choice and usage; register not always appropriate  |
| 11-8 | **Fair to poor** : limited range of vocabulary; a noticable number of mistakes in word/idiom choice and usage; register not always appropriate |
| 7-5 | **Very poor** : No range of vocabulary; uncomfortably frequent mistakes in word/idiom choice and usage; no apparent sense of register  |
| 4-0 | **Inadequate** : Fails to address this aspect of the task with any effectiveness |

 **d. Language**

|  |  |
| --- | --- |
| 30-24 | **Excellent to very good :** confident handling of appropriate structures, hardly any errors of agreement, tense, number, word ,order, articles, pronouns, prepositions; meaning never obscured |
| 23-18 | **Good to average** : acceptable grammar but problem with more complex structures; mostly appropriate structures; some errors of agreement, tense, number, word order, articles, pronouns, prepositions; meaning sometimes obscured |
| 17-10 | **Fair to poor** : insufficient range of structures with control only shown in simple construction; frequent errors of agreement, tense, number, word order, articles, pronouns, prepositions; meaning sometimes obscured |
| 9-6 | **Very poor** : major problems with structures-even simple ones; frequent errors of negotion, agreement, tense, number, word order, articles, pronouns, prepositions; meaning sometimes obscured |
| 5-0 | **Inadequate** : Fails to address this aspect of the task with any effectiveness |

1. **Mechanics**

|  |  |
| --- | --- |
| 10-8 | **Excellent to very good:** demonstrates full command of spelling, punctuation, capitalization, layout. |
| 7-5 | **Good to average:** occasional errors in spelling, punctuation, capitalization, layout. |
| 4-2 | **Fair to poor:** frequent errors in spelling, punctuation, capitalization, layout**.** |
| 1-0 | **Very poor :** : Fails to address this aspect of the task with any effectiveness |

For final score =Content + Organization + Vocabulary + Language use + Mechanics.

Based on the explanation mentioned, it can be concluded that scoring scale for evaluating students’ report text writing ability was adopted by Tribble with considered to content, organization, vocabulary, language use and mechanics.

**H. Validity, Reliability, Readability of the Test**

**1.** **Validity of Test**

A good test is test that has validity. The test can be considered valid if the instruments item can be used to measure what should be measured.[[10]](#footnote-11) Suharsimi adds that the validity test is conducted to check whether the test measures what is intended to be measured. [[11]](#footnote-12) A test is valid if the test can really test what needs to be tested correctly. It means that a good test must have validity so that the test can measure the aspects which measured. In this research, the researcher used content and construct validity.

a. Content Validity

Content validity is the extent to which the questions on the instruments and the scores from these questions are representative of all the possible questions that could be asked about the content or skills.[[12]](#footnote-13) Content validity is a test measures with a representative sample of the subject matter, the focus of content validity is adequacy of the sample and simply on the appearance of the test. It means that to get the content validity the test appropriate with the students’ book that the test is suited with the material, and the material is agreement with the objective learning.

b. Construct Validity

Construct validity is a determination of the significance, meaning, purpose, and use of scores from an instrument. Construct validity focused on the kind of the test that using to measures the ability. It means that test can measure what needs to be measured. In this case, the researcher was make a report text test that can measure the students’ writing report text ability referring of the some criteria of writing report text scoring rubrics. There are consists of content, organization, vocabulary, language and mechanic. The researcher consulted the instrument to the English teacher at SMA Pangudi Luhur Bandar Lampung to make sure whether the instrument was valid or not.

**2. Reliability of the Test**

H. Douglas states that reliability is to measure of accuracy, consistency, dependability, of fairness of scores resulting administration of particular examination.[[13]](#footnote-14) A reliability test is consistent and dependable[[14]](#footnote-15). Arikunto adds that reliability shows an instrument can be believed for used as tool of data collecting technique when the instrument is good enough.[[15]](#footnote-16) It means that if the data are true based on the facts, how many data that are taken, the result is always the same. To get the reliability in this test, the researcher used inter rater reliability. This inters rater reliability counts level of the reliability based on two series of score that are gotten by two raters or more simultaneously.

The researcher used the criteria of reliability was follows:

1. Between 0.800 until 1.000 ( very high)

 2. Between 0.600 until 0.799 (high)

 3. Between 0.400 until 0.599 (medium)

 4. Between 0.200 until 0.399 (low)

 5. Between 0.000 until 0.199 (very low) [[16]](#footnote-17)

**3. Readability of the Test**

According to sugiyono, readability tests are indicators that measure how easy a document is to read and understand. In addition, Journes and Bartllet says that the best way to know whether documents are truly easy to read is by asking for feedback from readers representing the intended audience.[[17]](#footnote-18) Furthermore, On a practical level, readability are needed for a wide variety of tasks, including selecting appropriate reading materials, effectively communicating technical, creating standardized tests, and teaching writing and communication skills.[[18]](#footnote-19) There are readability of the writing was given to the some students in eleventh grade as the test takers. The researcher conducted readability in order to see the clarify of the direction and the clarify of the instruction and readability test conducted before the treatment which is given by the researcher.

**I. Data Analysis**

To analyze the data, the researcher used parametric statistic. In the parametric statistic, there are assumptions which be fulfilled; they are normality and homogeneity test.

1. Fulfillment of the Assumptions

Parametric test is significant test which assume a certain distribution of the data assume an interval level of measurement, and assume homogeneity of variances when two or more samples are being compared. Furthermore parametric statistical significance test, consist of analysis variance and least squares regression, are widely used by writers in many disciplines, including statistics parametric tests to produce accurate results.[[19]](#footnote-20) It means that to get the accurate result the researcher has to do some test such as normality test and homogeneity test.

a. Normality Test

The Normality used to know whether the data, in experimental and control class, has the normal distribution or not. In this research, the researcher used statistical computation by using SPSS (Statistical Program for Social Science). While the criteria of acceptance or rejection of normality test are as follows:

 Ho is accepted if sig $\geq $ α = 0.05

 Ha is accepted if sig < α = 0.05

 The hypotheses for the normality test are formulated as follows:

 Ho : the data are normally distributed

 Ha : the data are not normally distributed.

b. Homogeneity Test

After the normality test, the researcher determined the homogeneity of the test. Homogeneity used to know whether the data is homogenous or not. In this research, the researcher used statistical computation by using SPSS (Statistical Program for Social Science). To calculate the Levene’s Test.

 While the criteria of acceptance or rejection of homogeneity test are as follow:

 Ho is accepted if sig ≥ α = 0.05

 Ha is accepted if sig < α = 0.05

 The hypotheses for the homogeneity test are formulated as follows:

 Ho = the variances of the data are homogenous

 Ha = the variances of the data are not homogenous.

 2. Hypothetical test

After the researcher know that the data is normal and homogeneous, the data is analyzed by using independent sample t-test in order to know the significance of the treatment effect.

 While the criteria acceptance or rejection of hypotheses test are:

 Ha is accepted if sig < α = 0.05

 Ho is accepted if sig $\geq $α = 0.05

 The hypotheses namely:

Ha : There is significant Influence of Scaffolding Technique toward Students’ Report Text Writing Ability at the First Semester of the Eleventh Grade of SMA Pangudi Luhur Bandar Lampung In the academic year of 2018/2019.

H0 : There is no significant Influence of Scaffolding Technique toward Students’ Report Text Writing Ability at the First Semester of the Eleventh Grade of SMA Pangudi Luhur Bandar Lampung in the academic year of 2018/2019.

1. John W. Creswell, *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research* (4th ed) (Boston: Pearson Education,2012),p.309. [↑](#footnote-ref-2)
2. *Ibid*.p.310 [↑](#footnote-ref-3)
3. Bambang Setiyadi, Op.Cit.p.38. [↑](#footnote-ref-4)
4. Claire, Hilary, *Handbook Research Method in Education* (London: The Open University, 2001)p.123. [↑](#footnote-ref-5)
5. *Ibid.* [↑](#footnote-ref-6)
6. Suharsimi Arikunto, *Metode Penelitian Pendidikan Pendekatan Kuantitatif, dan R&D* (Bandung: Alfabeta, 2010),p.60. [↑](#footnote-ref-7)
7. Jack R. Fraenkel and Norman E. Wallen, *How to Design and Educate Research in Education (*New York: McGraw-Hill,2009),p.105. [↑](#footnote-ref-8)
8. Husna, Lailatul. “An Analysis of Students’ Writing Skill in Descriptive Text at Grade XI IPA 1 of MAN 2 Padang.” *Journal English Language Tecahing* Vol.1 No.2 (July 2013),p.11. [↑](#footnote-ref-9)
9. Christopher Tribble*,*1996, *Language Teaching Writing*, Oxford, Oxford University,p.130. [↑](#footnote-ref-10)
10. *Ibid*. [↑](#footnote-ref-11)
11. Suharsimi Arikunto, *Op. Cit*. p.211. [↑](#footnote-ref-12)
12. John W. Creswell, *Op.Cit.*,p.618. [↑](#footnote-ref-13)
13. H. Douglas Brown, *Teaching By Principle: An Interactive Approach to Language Pedagogy* (2nd ed) (San Fransisco: longman, 2001),p.386. [↑](#footnote-ref-14)
14. *Ibid*. [↑](#footnote-ref-15)
15. Suharsimi Arikunto, Op. Cit.p. 211. [↑](#footnote-ref-16)
16. Sugiyono, *Metode Penelitian Pendidikan, Pendekatan Kuantitatif, Kualitatif dan R & D,* (Bandung: Alfabeta, 2010), 184. [↑](#footnote-ref-17)
17. Jornes and Bartlett, *Assesing Readability Wich Grade Level Formul*a, Available on : <http://www.Readability.Com-Assesing-Readability-With-Grade-Level-Formula> (April 2th 2018) 1.28 pm. [↑](#footnote-ref-18)
18. Alan Bailin and Ann Grafstein, *Readability Text and Context*,(USA: Palgrave Macmillan,2016) ,p.1. [↑](#footnote-ref-19)
19. Sugiyono, *Loc.Cit.* [↑](#footnote-ref-20)