**CHAPTER III**

**RESEARCH METHODOLOGY**

* 1. **Design of the Research**

This research is design by used the quantitative method. It means that the research accumulated and calculated the data which is get from the research. The research also focus to the quantity of variables, they are the use of Contextual Teaching and Learning (CTL) on the students achievement in writing. The type of this research is experimental design. It means that in collecting the data of the research; the researcher divided the sample into two groups, that is experiment and control group.

The experimental group is exposes to the influence of the factor under consider ration; the control group is not. It means that in this research, experimental group is taught by using Contextual Teaching and Learning (CTL), while control group is taught without Contextual Teaching and Learning (CTL). The design is applied in order to find out the effect of Contextual Teaching and Learning (CTL) to improve the students achievement in writing Design figure can be applying as follows:

**TABLE 3.1**

**DESIGN OF THE RESEARCH**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Group** | **Pre-test** | **Treatment** | **Post-test** |
| 1. | Experimental | √ | Teaching reading comprehension by using Contextual Teaching and Learning (CTL) | √ |
| 2. | Control | √ | Teaching reading comprehension without Contextual Teaching and Learning (CTL) | √ |

* 1. **Population and Sample of the Research**
     1. **Population**

Arikunto (2006:130-131) defines population is all the objects of research. The population of the research used the students of the eight grade of MTs Hifzhil Qur’an Islamic Center Medan. Two classes out of twelve classes choos as the sample, they are include 53 students. The condition of population can be seen as table below:

**TABLE 3.2**

**THE TOTAL POPULATION**

|  |  |  |
| --- | --- | --- |
| **No** | **Class** | **Total** |
| 1 | Grade VIII-3 | 30 |
| 2 | Grade VIII-8 | 30 |
| **Total** | | **60** |

* + 1. **Sample**

Arikunto (2006: 130-131) defines the sample as part of the population taken for observation. The researcher decided to take 60 students population as a sample in this study. The sample was divided into two groups, namely the experimental group VIII Plus-3 and the control group VIII-8, the control group consisted of 30 students and the experimental group consisted of 30 students..

* 1. **Procedure of the Research**

To get the data of this study, researchers used three procedures, namely pre-test, treatment, and post-test.

* Pre-test

Pre-tests were given to both groups (experimental and control groups). This initial test was conducted to determine the average score of the experimental and control groups to determine the students' writing ability before receiving treatment. So students are asked to write procedure texts.

* Treatment

Treatment was given to the experimental group by using contextual teaching and learning and discussing it, while the control group is taught by conventional methods (without using contextual learning).

* Post-test

After teaching both procedures, the teacher gave a post-test to each student in both groups to find out the average score of the experimental group and the control group after receiving treatment. Post-tests were conducted to determine the effectiveness of contextual teaching and learning in the classroom.

* 1. **Variable and Indicator** 
     1. **Variable**

1. Independent Variable (X)

Independent variable of this research is Contextual Teaching Learning one of way to give lesson plan used by the teacher in teaching-learning process. A way to measure this variable is using observation, the measuring instrument is an observation sheet, and for the score is start from 0- 100 to assess and measures the students writing ability in produce recount text. The indicator of this variable is the students easier to produce procedure text using Contextual Teaching Learning (CTL).

1. Dependent Variable (Y)

Dependent variable of this research is procedure text writing abilities. A way to measure this variable is using test, the measuring instrument is an question test, and for the score is start from 0-100 to assess and measures the students writing ability in produce procedure text. The indicator of this variable is that the students can apply content, organization, discourse, syntax, vocabulary, and mechanics to produce a good procedure text.

**TABLE 3.3**

**VARIABLE OF RESEARCH**

|  |  |
| --- | --- |
| **Variable X** | **Variable Y** |
| Contextual Teaching and Learning | Writing Skills |

* + 1. **Indicator**

**TABLE 3.4**

**THE INDICATORS OF WRITING PROCEDURE TEXT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Indicators** | **Scores** | **Criterion** | **Description** |
| 1 | Content: The appropriateness with the title chosen | 30-27 | Excellent to very good | Knowledgeable, substantive development of thesis relevant to assigned topic. |
|  |  | 26-22 | Good to average | Sure knowledge of subject, adequate range, limited development of thesis, mostly relevant to topic but lacks detail. |
|  |  | 21-17 | Fair to poor | Limited knowledge of subject, little substance, inadequate development of topic. |
|  |  | 16-13 | Very poor | Does not show knowledge of subject, non-substantive, not pertinent or not enough to evaluate |
| 2 | Organization: paragraph of unity, coherence and cohesion | 20-18 | Excellent to very good | Fluent expression, ideas clearly stated / supported, succinct, well-organized, logical sequencing, cohesive |
|  |  | 17-14 | Good to average | Somewhat choppy, loosely, organized, but main ideas stand out, limited support, logical but incomplete sequencing. |
|  |  | 13-10 | Fair to poor | Non fluent, ideas confused or disconnected, lack logical sequencing and development. |
|  |  | 9-7 | Very poor | Does not communicative, no organization, or not enough to evaluate |
| 3 | Vocabulary : the precision of using vocabulary. | 20-18 | Excellent to very good | Sophisticated range, effective word / idiom, choice and usage, word from mastery, appropriate register. |
|  |  | 17-14 | Good to average | Adequate range, occasional errors of word / idiom form, choice, usage but meaning not obscured |
|  |  | 13-10 | Fair to poor | Limited range, frequent errors of work /idiom form, choice, usage, meaning confused or obscured. |
|  |  | 9-7 | Very poor | Essentially translation, little knowledge of English vocabulary, idioms, word form, or not enough to evaluate. |
| 4 | Language use / grammar : tenses and pattern | 25-22 | Excellent to very good | Effective, complex construction, few errors of agreement, tense, number, word order / function, articles, pronouns, and prepositions. |
|  |  | 21-18 | Good to average | Effective but simple constructions, few errors of agreement, tense, number, word order / function, articles, pronouns, and prepositions but meaning seldom obscured. |
|  |  | 17-11 | Fair to poor | Major problems in simple / complex instructions, frequent errors of negation, agreement, tense, number, word order / function, articles, pronouns, and prepositions and or fragments, deletion, meaning confused or obscured |
|  |  | 1—6 | Very poor | Virtually no mastery of sentence construction rules, dominated by errors, does not communicate, or not enough to evaluate |
| 5 | Mechanics: spelling and punctuation. | 5 | Excellent to very good | Demonstrate mastery of conventions. Few errors of spelling, punctuation, capitalization |
|  |  | 4 | Good to average | Occasional errors of spelling, punctuation, capitalization, but meaning not obscured |
|  |  | 3 | Fair to poor | Frequent errors of spelling, punctuation, capitalization, poor handwriting meaning confused and obscured |
|  |  | 2 | Very poor | No mastery of conventions, dominated by errors of spelling punctuation, capitalization, handwriting-illegible or not enough to evaluate. |
| The range of writing score | | 35-100 | | |

* 1. **Instrument and Technique of Collecting Data**
     1. **Instrument of the Research**

The way data is collected was important role in conducting all types of research so that research results will be valid. In this research data were collected used a test that was writing procedure texts in a student worksheet based on his own words in the pre-test and post-test

* + 1. **Technique of Collecting Data**

The research collects the data by using data collecting technique as follow :

1. Observation

The researcher collects the results of observations that have been made at the school. Observations in the form of class data, and the condition of students' knowledge of English especially in writing procedure texts.

1. Test

The researcher gave the students test to know the improvement of their writing ability. The test was used writing procedure texts use their own words on the worksheet. It is measure the students‟ ability in writing especially procedure text. There are tests used in this research. Those are pre-test and post-test:

* 1. Pre-test

The pre-test was conducted at the first meeting to find out the level and ability of writing students before taking research.

* 1. Post-test

The post-test was conducted in the last meeting after implementing the meaningful learning strategy, in order to know whether the implementing the meaningful learning strategy gave contribution to students’ writing ability at eighth grade of MTs Hifzhil Qur’an Islamic Center Medan. The increasing could be know if the score of post-test was higher that pre-test and the score could achieve the passing grade.

1. Documentation

Documentation is the instrument to collecting data about the event in past that had been record. In this research, the researcher took data from the documentation of school such as the total of students, teacher, and school history and the condition of the school (photo).

* 1. **Technique of Analyzing the Data**

In finding the results of tests that have been done by students, namely the test of writing a procedure text and to prove the hypothesis, the researcher apply the t-test to analyze data. According to Arikunto (2005) formula as follows:

t = 

Where:

X : The mean of experimental group

X : The mean of control group

X : The deviation of experimental

X : The deviation of control group

n : The total sample of experiment group

n : The total sample of control group

Reliability of the test is one the characteristic of a good test; reliability refers to the consistency of the measurement. To obtain the reliability of the test, the researcher is using a formula that is:

 (Muhibin Syah, 2000:280)

Where:

X : The number of items in the test

Y : The mean of the test scores

N : The number of the students

X : The Square of the deviation scores of experimental group

Y : The Square of deviation scores of control group

The criteria of value:

1. If tcount more bigger than ttable on significance level 0.05% it means: “There are a significant effect of Contextual Teaching Learning (CTL) on the students’ achievement in reading comprehension” and the hypothesis is accepted.
2. If tcount more less than ttable on significance level 0.05% it means: “There are no significant effect of Contextual Teaching Learning (CTL) on the students’ achievement in reading comprehension” and the hypothesis is rejected.