# CHAPTER III
# METHOD OF THE RESEARCH

## A. Research of Method

The researcher will conducted in a quantitative research method with quasi experimental design because the researcher want to investigate the significant of using STAD in teaching speaking skill at the eight grade in Madrasah Tsanawiyah Daarul Falah Serang-Kopo. However, in this research the writer will using quasi-experiment because this research there will be a pre-test and post test to get the data. In this research will involved two classes, it is experimental class and control class. The experimental class consist of the students who received the threatment. However, the control class will not. And both classes will received a pre-test on whatever instrument will be given by the researcher.

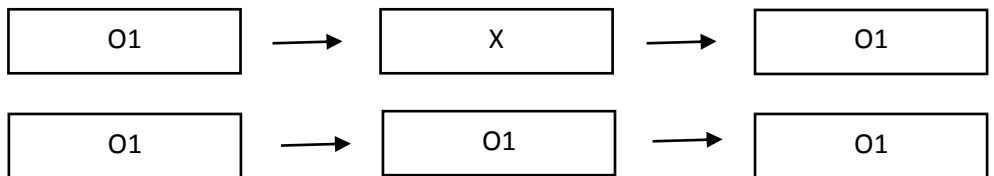The research design of this study can be illustrated as follows [1]

| O1 | → | X | → | O1 |

| O1 | → | O1 | → | O1 |

**Figure 3.1: The process of experimental class and controlled class**

Notes :

O1        : Pre-test in experimental class

X          : Treatment using STAD

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[1] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*, (Bandung: Alfabeta, 2017), p.79

O2      : Post-test in experimental class

O3      : Pre-test in control class

O4      : Post-test in control class

-      : Without treatment of using STAD method

## B.  The place and the time of study

This study was conducted at Ponpes Madrasah Tsanawiyah Daarul Falah Serang-Kopo. There are three main reasons why the researcher choose this setting they are: First, the researcher ever teach at this school. Second, the researcher is graduated of this school. Third, the population or sample is enough for experimental study.

Moreover, for the research time line will be illustrated in the following matrix:

| No | Activity | Month | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | December 2019 | | | January 2020 | | | April 2021 | | | May 2021 | | |
| | Weeks | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| 1. | Writing Proposal | ● | | | | | | | | | | | |
| 2. | Proposal Examination | | ● | | | | | | | | | | |
| 2. | Revising Proposal | | | ● | | | | | | | | | |
| 3. | Asking Permision | | | | ● | | | | | | | | |
| 4. | Taking Data | | | | | | | ● | | | | | |
| 5. | Giving Treatment | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6. | Analyzing and Intepreting data | | | | | | | | | | | | |
| 7. | Finalyzing Paper | | | | | | | | | | | | |

## C. Population and Sample

1. Population

   The population in this research is students of eight grade in Madrasah Tsanawiyah Daarul Falah Serang-Kopo that consists 60 students divided into two classes.

2. Sample

   sample is part of number and characteristic those set in the population".[2] form a part of population representative population, so if the researcher find information on sample its mean that information was constituted from the sample.

   The sampling technique applied in this was clauster random sampling. Clauster random sampling or sample area (group) is ideal when it is impossible or impractical to compile a list of the elements composing the population.[3] The researcher chooses this sampling technique because clauster random sampling was easier in the implementation and manageable than the others technique. Moreover, the researcher could limit the time, energy, and fee.

   The researcher took only 60 of students at eight grade. The researcher took two classes as sample for the research; they are

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[2] Sugiyono.*Metodepenelitian kuantitatif kualitatif dan R & D*. edisi 2 (Bandung: Alfabeta. 2016. P.118

[3] John W. Cresweel, *Research Design Qualitative, Quantitative, direct Methods Approaches Third Edition* (United state : Sage Publication, 2009), 148

students in class VIII A as control class which consists of 30 students and they were taught without STAD method. While students in class VIII B as experimental class that consists of 30 students, they were taught without using STAD method.

### D. The Technique of Data Collecting

The collecting of data is a systematic procedure and standard obtain the necessary data. For collecting the data in this research, the researcher used classroom observation, test (pre-test and post-test) and interview.

### 1. Observation

Before doing the research, the researcher does the observation directly to the school which become the place of this research and the population who becomes the object of this research. The researcher did observation in order to identify the condition of students in the class and investigate their problem and difficulties in study. The purpose of this observation is to get information about teaching learning of students in English subject

### 2. Pre-test

After getting data from classroom observation, the researcher conducted the pre-test both experimental and control classes. This step was conducted to know the students' speaking skill before conducting the research and as measurement between two classes. The writer gave students equal test related to subject matter based on the syllabus and lesson plan for the student of eight grade. The researcher instructed them to

perform what they got from the group discussion in front of the class to improving students' speaking skill.

3. **Treatment**

After the writer gives pre-test than teach speaking through STAD method in experimental class and without STAD in the control class. Both the experimental class and control class will give the same instructional materials with a different technique.

4. **Post-test**

Both experimental and control classes faced the posttest. The test instruction was same as the pretest but has different content. After scoring the test both two classes were analyzed and calculated.

5. **Interviews**

This technique was used to gather detailed information from the students and the teacher about the implementation of STAD method in classroom. The researcher used informal interview to obtain data and information from representatives of VIII class students of Madrasah Tsanawiyah Daarul Falah Serang-Kopo and English subject teachers regarding the advantages and obstacles of English speaking skill through STAD method

E. **The technique of Analysis Data**

To analysis data, the researcher uses T-test. "T-test is one of the statistical tests used to test the truth or the falsity of the null hypothesis which states that between 2 samples taken randomly

from the same population, there is no significant difference".[4] "The T-test is one of the comparative analysis techniques used to test the truth, whether there is a difference between two or more variables under investigation".[5] T-test is the most frequently used measure in second language research when comparing mean scores for two groups. It supposed to know whether experimental versus control class when taking the same test has the same score or not.

The analyzed data is acquired from the test and observation. The researcher analyzes the data based on the collected score data of pretest and posttest of experimental class and control class. In the other hand, the researcher also analyzes the score of students learning activity which written on the sheet of students' observation.

Then, the steps of analzing data are as follwos:

1. Calculating students' writing score both pre-test and post-test by using the following formula:

$$Student\ Score = \frac{Student's\ right\ answer}{Total\ items} \times 100$$

2. Determining mean of variable X1 with formula as follows:

$$M_1 \frac{\sum X_1}{N_1}$$

3. Determining mean of variable X2 with formula as follow:

$$M_2 \frac{\sum X_2}{N_2}$$

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[4] Anas Sujiono, *Pengertian Statistik Pendidikan,* (Jakarta: Raja Grafindo Persada, 2012), 278

[5] Fathor Rachman Utsman, *Panduan Statistika Pendidikan,* (Jogjakarta: Diva Press, 2015), 153.

4. Counting standard of deviation score variable X1 with formula as follows: $X_1 = X_1 - M_1$

5. Counting standard of deviation score variable X2 with formula as follows: $X2 = X2 - M2$

6. Testing Normality of data by using lilliefors method with formula as follows: $Z = \dfrac{X - \bar{x}}{SD}$

7. Counting degree of freedom with formula as follows:
   $df = N1 + N2 - 2$

8. Analyzing and comparing the result of post-test from both groups by using t-test formula as follows:

$$t0 \; \dfrac{M1 - M2}{\sqrt{\left(\dfrac{\Sigma X_1^2 + \Sigma X_2^2}{N_2 + N_2 - 2}\right)\left\{\dfrac{N_1 + N_2}{N_1 \cdot N_2}\right\}}}$$