CHAPTER III
METHODOLOGY OF THE RESEARCH

A. The Method of Research

Research methodology is a way to systematically solve the research problem. Kothari defines that “research is a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation.”¹ The research is conducted as experimental research, because the writer is not the teacher in the research place; experimental research is a procedure for testing a hypothesis by setting up variables which can be tested. Geoffery Marczyk says “Experimental research involves comparing two groups on one outcome measure to test some hypothesis regarding causation.”² Singh said that “experimental method is a scientific method. It is oriented to the future in the sense that the researcher is seeking to evaluate something new. It is a process of contribution to the already acquired fund of knowledge.”³

The writer will explain the types of experiments and its characteristic brief. First is pre-experiment that many have pre and post treatment, but lacks of control group. Second is quasi-experiment that has both pre and posttest and experiment and control group, but no random assignment of subject. And the last is true-experiment that has both pre and post-test and experiment and control groups, and random assignment of subject. ⁴ So, the writer uses second types in this research.

To know the effectiveness of hypoteaching on the students listening ability, the researcher uses a quasi-experimental method. Quasi-experimental is including into experimental design at of design the researcher does two treatments.

The writer applied an experimental and controlled class designed by Arikunto for conducting the result, as follow:

Table 3.1

Control group, pre-test, post-test design

<table>
<thead>
<tr>
<th></th>
<th>E</th>
<th>O₁ x O₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K</td>
<td>O₃ x O₄</td>
</tr>
</tbody>
</table>

Where:

E : Experimental Class
K : Controlled Class
O₁ & O₃ : Pre-test
X : Treatment
O₂ & O₄ : Post-test.

B. Place and Time of Study

The study will conduct in SMPN 4 Kota Serang. The place and the time are explained as follows: Place of the Study, the location in SMPN 4 Kota Serang Jl. Juhdi No.20 Cimuncang Kota Serang. The research will be held at november 2018 and finished.
C. Population and Sample

1. Population

Population is the whole of research subject. And strengthen by Nunan’s opinion, “population is all case situatuions, or individuals who share one or more characteristics.” The population of research in these seventh grade of junior high school SMPN 4 Kota Serang. There are five of class VII A, VII B, VII C, VII D, VII E, and each the classes consist of 35 students. The total population 175 students at the first grade of SMPN 4 Kota Serang.

2. Sample

A Sample is a part or representative of population being researched and it is called sample research if researcher aims to generalize the result of sample research. Briefly, the writer concluded the research as validity of population. The writer took sample by hypnoteaching technique from seventh grade students of SMPN 4 Kota Serang in academic year 2018/2019. The writer takes two classes there are class VII B consists of 35 students as controlled class and class VII D consists of 35 students as experimental class.

Sample, the sample of this research is 20% from the student’s population. So that is 35 students, by non-random sampling. Arikunto says that “if the object is less than 100, it is better taken all of them, so the research population. Furthermore if it is more than 100, it can be taken 10-15% or 20-25% or more.”

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7Arikunto, Suharsimi, Prosedur Penelitian Suatu Pendekatan Praktek, (Jakarta: Rineka Cipta, 2006), 89.
D. Technique of Collecting Data

To collect the data, the researcher used a listening cloze test as the primary instrument. There are two types of tests; pre-test and post-test. The pre-test was given in experimental and control class to know how well the students’ listening ability before receiving treatment. The post-test was given to know their listening ability after the treatment. For collecting the data and gaining experiment, the researcher had 6 meetings in three weeks which two meet up for a week. These are the detailed information for the process:

1. First meeting, experimental and controlled group did pre-test. Before they started to do the test, the researcher introduced who the researcher is and gave the simple instruction for filling the test. The test was listening cloze test which the researcher would read a text and asked the students to listen carefully while filling the blank words in the text. It took 40 minutes and then they collected their paper test to the researcher. Before leaving the class, the researcher asked for their feedback after did the pre-test.

2. Second until fifth meeting, experimental group did the experiment study while controlled group did their usual study with their own teacher. In experimental group, the researcher let the students listened the teacher with using Hypnoteaching method by the researcher before they learn their main English subject. It was the main treatment for boosting their mood and made them ready to study. In the process of study, they asked to peer-work for completing the teks of the sentence that they listened before study. The purpose of this stage was to train students listening skill by asking them to focus on popular topic they listened. The researcher gave three repeating times for them to listen while completing the teks.

3. At the last meeting, experimental and controlled group faced the post-test. The form of the test was similar with pre-test, listening cloze test,
but had different contains. They also had 40 minutes for the post-test and after that the researcher compared the score result of pre-test and post-test.

E. Research Instrument

The instrument was listening cloze test. The test item would present 10 questions. After that, the researcher used the exact method as approaches for scoring listening cloze test. This is a method that only gave credit or score to the students who fill the blank with the exact word that was originally deleted by the researcher. The researcher would give score 10 for each correct answer item test in the listening cloze.

From the description of each test from above, we can see that the high score of this test is 100 scores. The following table is description of test:

<table>
<thead>
<tr>
<th>No</th>
<th>From of the test</th>
<th>Number of test items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dictation (recorded cloze)</td>
<td>10 items</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10 items</td>
</tr>
</tbody>
</table>

F. The Technique of Data Analyzing

Because the writer wants to compare result of the research between experiment class and control class students. After greeting the data from pre-test and post-test, the writer analyzes it by using calculation of t-test formula with the degree of significance 5% and 1% the formula as follow:

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\[ t_0 = \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2}\right)\left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}} \]

t_0 = t \text{ count table}

\( x_1 \) = score post-test of Experiment Class

\( x_2 \) = score post-test of Control Class

\( X_1 \) = score post-test of Experiment Class of every students, taken the average value

\( X_2 \) = score post-test of Control Class of every students, taken the average value

\( X_1^2 \) = the squared value of \( X_1 \)

\( X_2^2 \) = the squared value of \( X_2 \)

Investigating students worksheet givens and describes in the table with formula.

1. Determining mean of variable \( X_1 \) with formula : \( M_1 = \frac{\sum x_1}{N_1} \)

2. Determining mean of variable \( X_2 \) with formula : \( M_2 = \frac{\sum x_2}{N_2} \)

3. Determining derivation score variable \( X_1 \) with formula : \( X_1 = X_1 - X_2 \)

4. Determining derivation score variable \( X_2 \) with formula : \( X_2 = X_2 - X_1 \)

5. Determining degree of freedom with formula : \( Df = N_1 + N_2 - 2 \)