CHAPTER III

RESEARCH METHOD

In this chapter, the researcher will illustrate how this study is conducted with the subject of research designing. It consists of research method and design, population and sample, research variables, research instrument, technique of data collection and technique of analysis data.

3.1 Research Method

According to Ary et al (2010) research is a semantic practical of the scientific approach to investigate a fact from problem. It is also way to acquire reliable and useful information and defines research into qualitative and quantitative research. There are also some research designs which familiar to educational field, namely, classroom action research, descriptive research, and experimental research. This research was used quantitative method and can be called experimental research.

3.2 Research Design

Research design used of this study is pre-experimental design. According to Saleh (2012:38) stated that the one group pretest and posttest design is one degree better than the one shot case study. By giving a test before and after treatment, at least the researcher can see the difference of students' ability before and after treatment is given. The researcher uses pretest-posttest group design only as the form of research design of this study. In this research, there is 1 group chosen randomly. It is experimental group. Than the experimental group is given treatment before the researcher gives the posttest. The treatment above is using Hello English Application in teaching grammar. The researcher uses snowball sampling to choose 1 class to give the treatment. As for the research design for this model.

Table 3.1 Pretest-Posttest Group Design

Group	Pretest	Treatment	Posttest
Experimental	Y_1	**X**	Y_1

Note:

Y1: Pretest before treatment to experimental group

X: The Treatment given to experimental group

Y2: Posttest after treatment to experimental group

3.3 Population and Sample

3.3.1 Population

According to Creswell (2012: 142) population is a association of individuals who have the same characteristics in a class of study. The population of the study was the seventh grade students of SMP Muhammadiyah 2 Surabaya in the years of 2017/2018. It should be clear from the data that population of the study consists of your classes of the students from 7A-7F.

Table 3.2 The Number of Population

No	Class	Number
1	7A	25
2	7B	25
3	7C	20
4	7D	33
5	7E	33
6	7F	33

3.3.2 Sample

According to Creswell (2012: 142) Sample is a branch of group of the target of population in the class of the research. Sample is a part of that has the same characteristic with population its self. The sample of research is 7B and the class of tryout of the research is 7A. the researcher uses snowball sampling to choose the class for giving the treatment class

3.4 Time and Setting

The setting of research is SMP Muhammadiyah 2 Surabaya, it is located at Jl. GentengMuhammadiyah, Surabaya in Junior High School in 2017/2018. The time of the research is 13th April 2017 until 22nd July 2017.

3.5 Research Variables

Research variable is a form established by the research its self to be studied so that can be found an information and than made a conclusion which that research variable is divided into 2 kinds, those are independent (X) and dependent variables (Y). Independent variable is an influencing variable or becoming a cause for the on set of variable Y (dependent variable), while dependent variable is a variable influenced by the variable X. it means that dependent variable (Y) is a effect because independent variable (X) that can stand alone without depends on another variable.

3.5.1   Independent Variable (X)

"According to Creswell (2010;116) Independent variable an attribute or characteristic that influences or affects an outcome or dependent variable". It means that independent variable is a variable that can stand alone without

another variable. In this research, the independent variable is teaching simple present tense using Hello English Application.

(X1) : The use Hello English Application in teaching simple present tense.

(X2) : The use of "lecturing" method (conventional) in teaching simple present tense.

3.5.2 **Dependent Variable (Y):** The students' grammar ability

According to Creswell (2010;115) dependent variable is a characteristic that influenced by Independent variable. It means that dependent variable is a variable that cannot stand alone without a media or method to do it. In this research, the dependent variable is the effectiveness.Here is a schematic depiction of the relationship between the independent variables with the dependent variable in this study.

X1 : The use of Hello English Application in Teaching Simple Present Tense.	
	Y : Students' grammar ability
X2 : The use of "lecturing" method (conventional) in teaching simple present tense.	
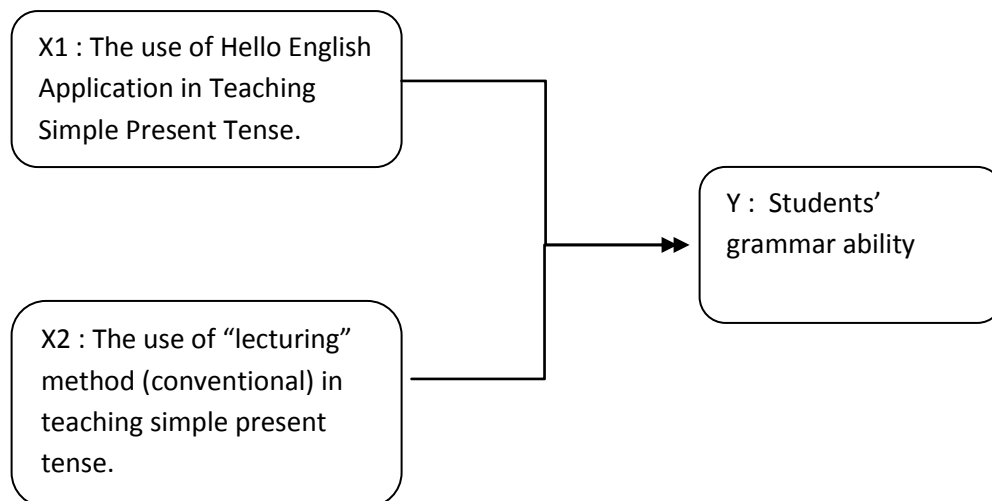
On this study, the variable will be observed only Variable Y the students' result of study.

3.6 ResearchInstruments

In this research the researcher uses some of instruments to do the experimental research.

3.6.1 Pre Test

Before giving the material and treatment, the researcher gives students test. The test is called pre test.Pretest is a test that given to students before they get a treatment. The function of pretest is to measure how far the students understand the teacher's explanation before. Besides that, pretest is also used to choose which one isthe control group and experimental group based on the result. In this research the researcher give a pretest about simple present tense. The pretest will be given to the 7B class.

3.6.2 Post-test

In posttest the researcher also give the question about simple present tense. But there is difference that kind of question is chosen by the researcher to make them so easily.

3.6.3 Lesson Plan

Before giving material, treatment and post test, the researcher arranges the lesson plan for organizing the time allocation in both classes. Then, lesson plan consists of the material, purpose of teaching material, object of teaching and so on.

3.6.4 Questionnaire

Questionnaire is a data collection that is done by giving some questions to respondent. In this research, the researcher gave seven questions for students of experimental class. It is done to know the students' opinion about learning activity using Hello English Application.

3.7 Data Collection Technique

In the data collection, students as the subjects of my research would do these three activities: Try out, treatment and post-test. To conduct a test, there must be a try-out to make sure that the test is valid. Therefore, before the pre-test I would conduct a try-out to another class.

(1) Try Out

The try-out was administered to examine the feasibility of the instrument before it was carried out for the pre-test and the post test. There were two points to reveal in the try-out namely validity and reliability. In order to get the validity of the test, the try out did not hold in 7B as the subject of my research. Thus, I held it at another class. I chose 7A class randomly to have the try-out.

(2) Treatment

In an experimental research, treatment is usually done in finding out the significant in Experimental class experiencing techniques. In this study, I tried to find out the significant which was taught using Hello English Application for the experimental group to improve the students' ability in understanding the grammar. I gave treatment to the experimental group.

(3) Post-test

According to Creswell (2012; 297) A posttest is used to measure the students' ability in an experiment afterthey receive a treatment. This activity was done to find out the significant the students' ability in teaching grammar after the treatment. To see the significant the result of the experimental group, I calculated the t-value of the post-test results.

3.8 Research Procedure

In this case, the researcher will describe about research procedure that will be done in both of groups. As seen in this table in the next page:

Table 3. 3 Research Schedule

No	Schedule	Time
1	Meeting the curriculum vice headmaster to ask permission	Thursday, 13th April 2017
2	Meeting the English teacher	Wednesday, 19th April 2017
3	Try out for 7A	Monday, 17th July 2017
4	Download "Hello English Application"	Tuesday, 18th July 2017
5	Teaching Grammar (simple present tense) using Hello English Application and giving post test in experimental group	Friday, 21st July 2017
6	Giving the students' response to students of experimental class	Saturday, 22nd July 2017

Table 3. 4 The Ways of Giving Material in Experimental Class

Experimental
1. The researcher and the teacher enter the classroom and explain about the material that will be studied by students.   2. The teacher gives explaining the material about simple present tense.   3. After the teacher explains, the teacher asks the student to download Hello English Application in the students' smart phones.   4. After download the media, the students are asked to make account in the application.   5. The teacher asks the students to do the tasks about simple present tense in Hello English Application.   6. The teacher gives 40 minutes to the students to finish it.   7. After the students finish it, the teacher checks the student's tasks in students' smart phone.   8. The teacher gives the post test for the students in experimental class.   9. After the students finish the post test, the teacher asks the students to submit in front of the class.   10. The teacherasks or gives reviewing about the material.   11. The teacher closes the class.

3.9 Validity and Reliability

Before the pretest and posttest is given to students. The researcher must get the validity test and reliability test to know the data is valid or not. So the researcher asks the one of lecturer in University and English teacher in SMP Muhammadiyah2 Surabaya.

3.9.1 Validity

Validity is the most important to considerate research instrument is valid or not. Dr. Sugiyono (2014; 121) view's that valid is an instrument that be used to measure object that must be measured. According to Brown (2000:388) there are three kind of validity they are content validity, construct validity, and face validity.

First is validity for lesson plan (content validity). There are some corrections from the valuators. Gusti Nur Hafifah, S. Pd., M. Pd. (expert on English Language Teaching) as the first valuator gives some correction. It is the aspect about assessment. It has to be more detail. The feedback from Mr. Anas Efendi, S. Pd. (English teacher of SMP Muhammadiyah 2 Surabaya) stated that the basic competence should be 3.6 not 3.7 because 3.6 is about present tense and give the oral test for the students. In the next page there is the content of validity of the material in lesson plan.

Table 3.4 Content Validity of Lesson Plan

Curriculum of 2013	
Main Competency:	KI 3: Memahamidanmenerapkanpengetahuan (faktual, konseptual, danprosedural) berdasarkan rasa ingintahunyatentangilmupengetahuan, teknologi, seni, budayaterkaitfenomenadankejadiantampakmata. KI 4: Mengolah, menyaji, danmenalardalamranahkonkret (menggunakan, mengurai, merangkai, memodifikasi, danmembuat) danranahabstrak (menulis, membaca, menghitung, menggambar, danmengarang) sesuaidengan yang dipelajari di sekolahdansumber lain yang samadalamsudutpandang/teori.
Basic Competency:	3.6.1 Memahami fungsi sosial, struktur teks, dan unsur kebahasaan pada teks untuk menyatakan dan menanyakan sifat orang, binatang, benda sesuai dengan konteks penggunaannya. 3.6.2 Simple Present Tense
Indicators:	3.6.1 Memahamipenggunaan verb atau to be dalam Simple Present Tense. 3.6.2 Menjelaskanfungsidari Simple Present Tense. 3.6.3 Menyebutkan pattern dari Simple Present Tense. 3.6.4 Membuatkalimatsederhanasesuaidengan pattern dari Simple Present Tense.

Based on the table above, it shows that basic competency is suitable with the main competency of English subject of seventh grades of Junior high school. So it is can be called valid because basic competency and main competency match.

After the lesson plan validity, the next is validity of the test. In the validation of test, there are two steps of validation. The first is the feedback from valuator. The valuator to validate the test is WaodeHamsia, M.Pd., she is lecturer on grammar class. Her comments are the questions of the test must be appropriate with indicators in lesson plan, the language must be stated in English, and there must not be double meaning. After that the researcher changed the test of pre test and post test based on this feedback. To make it more valid the test had been through the tryout which was held in 7A class. The researcher uses SPSS 22.0 to evaluate the validity of the test and the results are eleven questions which are valid from thirty questions. As a note, there are four additional questions which created based on modification from valid question. So the total questions are fifteen.(*see appendix 12, 13*)

After the validation of test used the content validation, the second validation of the test is empiric validation. The empiric validation used SPSS 22.0 software. There are 11 questions which stated valid.

Table 3.5 Validity of the test

No	Name	Validity of the test		Date
		Yes	No	
1	GustiNurHafifah, S.Pd, M.Pd.	√		Thursday, 18th May 2017
2	AnasEfendi, S.Pd	√		Friday, 19th May 2017
3	WaodeHamsia, M.Pd.	√		Wednesday, 5th July 2017

3.9.2 Reliability

Reliability refers to degree of consistency with which it measure and whatever it is measuring (Ary et al, 2010:236). It is concerned with precision and accuracy. A test is reliable if it is consistent within itself and across time. A test must be reliable as measuring instruments. These steps were measured reliability by using SPSS 22.0. Table of scale of reliability in the next page:

Table 3.6 Scale of Reliability

Scale	Level of Reliability
0.00-0.02	Not Reliable
>0.02-0.40	Less Reliable
>0.40-0.60	Reliable Enough
>0.60-0.80	Reliable
>0.80-1.00	Very Reliable

3.9 Data Analysis Technique

The activities of data collection technique are grouping data based variable, showing data and doing the calculation to answer the statement of the problem as well as to examine hypothesis.

3.9.1 Normality Test

The purpose of the normality test is about to know is the data normal or not. Normality test is done by using SPSS verse 22.0. To check this data is normal or not, the criteria of testing normality is if Pvalue>σ (sig. 0.05) so that H_0 is accepted. But if P value< σ so that H_0 is refused.

H_0 = sample of data is normal distribution

H_1 = sample of data is not normal distribution

The criteria of the test based on *p-value* as below*:*

H_0 push away, if $p_{(value)} > \alpha$, so data is normal distribution

H_1 Push away, if $p_{(value)} < \alpha$, so data is mor normal distribution

3.9.3 T-Test

After testing reliability, it will be continued with T-test. On the standardization 0.05 with formula hypothesis :

H_0 :teaching grammar by using hello English application is not effective for students' simple present tense ability at seventh graders.

H_1 :teaching grammar by using hello English application is effective for students' simple present tense ability at seventh graders.

The criteria of the test based on *p-value* as below*:*

H_0 push away, if $p_{(value)} < \alpha$, so there is no effective

H_1 Push away, if $p_{(value)} > \alpha$, so there is effective

The researcher also counts T-test using manual way with calculating T_{count} and T_{table}. If $T_{count} > T_{table}$, so H_0 push away, but if $T_{count} < T_{table}$ so that H_1 push away.