CHAPTER III

RESEARCH METHOD

In this chapter, the researcher presented nine topics dealing with research methods. Those were research design, population and sample, research instrument, validity and reliability testing, normality and homogeneity testing, data collecting methods, data analysis.

A. Research Design

In this research, the researcher used a pre-experimental design with quantitative approach. It was because only have one group as both the control and experimental groups and because these design provide little or no control of extraneous variable (Ary, 2010:303). The experimental group was the group that was undergoing the treatment or stimulus, and the control group which was unaffected by the stimulus. Therefore, in the one-group pre-test-post-test design, a single group was observed not only after being given by a treatment, but also before. The experimental group would be conducted by using pretest before treatment and posttest for the result of treatment as instrument to collecting data. The researcher only used one group pre-test and post-test. The researcher used pre-test and post-test to see the treatment. The test done before treatment was called pre-test and after treatment called post-test. Ary (2010:303) stated that the procedure of pre-experimental research that used pre-test and post-test design:

- Administering pre-test with a purpose of measuring grammar mastery in simple present tense of the seventh grade at MTs. Syafi'iyah Besuk-Probolinggo.
- 2. Applying the treatment to the subject that was teaching simple present tense using substitution drills technique.

Treatment here meant that the researcher used substitution drills technique in teaching learning process. The process of this technique described as follow: first, the researcher explained what was substitution drills technique, by explaining each type of substitution drills, providing a clear example of substitution drills, and discussing the difference. Next, the researcher gave the procedures teach simple present tense using substitution drills.

Table 3. 1 Steps the Treatment of Substitution drills technique (see appendix 4)

First treatment on January, 30th 2019

NO.	Activity	Time Allocation	Description Activity	
1.	Pre-activity	10 minutes	 The teacher gave greetings and greets students in English, such as: "Good morning!", "How are you today?" The teacher asked students to pray first 	
			before the learning process began.	

			•	The teacher checked the attendance of students. The teacher prepared tools or media that would be used in the learning process. The teacher explained what activities would be carried out today. After that, the teacher asked the students whether they were ready or not to begin the lesson today.
2.	Whilst- activity	60 minutes	•	The teacher asked students about their understanding about descriptive text. Like 'had you ever heard of descriptive text? In our language call it "teks deskripsi" What could we found in descriptive text? The teacher provided an explanation of descriptive text. Then the teacher explained the simple present tense briefly. The teacher asked students to listen carefully. The teacher gave an example of descriptive text The teacher asked students to look for sentences that simple present tense in the text was used.

			 The teacher changed the new subject / object in the sentence that has been found by the student. The teacher gave instructions to students relating to the Substitution Drill technique. The teacher asked students to change the previous sentence with the given vocabulary (substitution drill technique) Students replaced the previous sentence with the vocabulary given by the teacher to the new sentences The teacher gave several questions and asked students to replace the sentence using substitution drill technique.
3.	Post- activity	10 minutes	 Teachers and students reflected on learning. Students were given the opportunity to ask questions about material they have not yet understood about today's meeting learning material. The teacher and students made conclusions from the material that has been studied.

	 The teacher conveyed to students the material to be learned for the next meeting. Then the teacher closed today's learning by praying
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In the first meeting, the researcher taught the definition of descriptive text. Then the researcher explained the simple present tense briefly used substitution drills technique. The researcher gave an example of descriptive text. After that the researcher asked the students to look for sentences that used simple present tense in the text. The researcher changed the new subject/object in the sentence that has been found by the student. Then, the researcher gave new vocabulary. The researcher asked the students to change the previous sentences with the new vocabulary (substitution drill technique). Finally the students replaced the previous sentence with the new vocabulary given by the teacher to the new sentence.

The second treatment on February, 4^{th} 2019

NO.	Activity	Time Allocation	Description Activity	
1.	Pre-activity	10 minutes	• The teacher gave greetings and greeted students in English, such as: "Good morning!", "How are you today?".	

2	Whilet	60 minutos	 The teacher asked students to pray first before the learning process began. The teacher checked the attendance of students. The teacher prepared tools or media that would be used in the learning process. The teacher explained what activities wouldl be carried out today. After that, the teacher asked the students whether they were ready or not to begin the lesson today.
2.	Whilst-activity	60 minutes	The teacher provided an explanation of simple present tense in verbal sentences. Example: • The teacher started the class by asking students about habits that were often done by students when they wake up, what their parents did when they were in the morning, took a shower and went to school. • The teacher explained positive sentences, negative sentences and interrogative sentences in verbal sentences. • Then the teacher explained the addition (-s / -es) if the subject is she, he, and it. • The teacher explained

			has and have. The teacher provided many examples of simple present tense. The teacher gave an example by changing the subject / object / adverb using a new vocabulary. The teacher gave instructions to students related to the Substitution Drill
			technique. The teacher asked students to change the previous sentence with the new vocabulary (Substitution Drill Technique) Students replaced the previous sentence with the new vocabulary to positive, negative, or interrogative sentences. The teacher gave several questions and asked students to replace the sentence using substitution drill
3.	Post- activity	10 minutes	technique. Teachers and students reflected on learning Students are given the opportunity to ask questions about material they had not yet understood about today's meeting learning material. The teacher and students made conclusions from the material that has been

	studied. • The teacher conveyed to students the material to be learned for the next meeting • Then the teacher closed today's learning by praying.

In the second meeting, the researcher taught simple present tense in verbal sentence. The researcher started the class by asking the students about habits that were often done by students when they wake up, what their parents do when they were in the morning, take a shower and go to school. The researcher explained positive sentences, negative sentences and interrogative sentences in verbal sentences. Then the researcher explained the addition (-s / -es) if the subject was she, he, and it also explained when sentences used do and does, has and have. The researcher provided many examples of simple present tense. After that the researcher gave example about substitution drills technique. The researcher changed the new subject/object in the sentence. Then, the researcher gave new vocabulary. The researcher asked the students to change the previous sentence with the new vocabulary (substitution drill technique). Finally the students replaced the previous sentence with the new vocabulary given by the teacher to the new sentence.

The third treatment on February, 6th 2019

NO.	Activity	Time Allocation	Decription Activity
1.	Pre-activity	10 minutes	 The teacher gave greetings and greeted students in English, such as: "Good morning!", "How are you today?" The teacher asked students to pray first before the learning process began. The teacher checked the attendance of students. The teacher prepared tools or media that would be used in the learning process. The teacher explained what activities would be carried out today. After that, the teacher asked the students whether they were ready or not to begin the lesson today.
2.	Whilst- activity	60 minutes	The teacher provided an explanation of the simple present tense in nominal sentence. Example:
			 The teacher started the class by providing the students about simple present tense. The teacher explained positive sentences,

negative sentences and interrogative sentences in nominal sentences.

- The teacher provided an explanation the use of auxiliary verb, (I = am), (She, He, It = is), and (You, They, we = are)
- The teacher gave many examples of simple present tense in nominal sentences.
- The teacher gave an example by changing the subject/object/adverbs using a new vocabulary.
- The teacher gave instructions to students related to the Substitution Drill technique.
- The teacher asked students to change the previous sentence with the new vocabulary (Substitution Drill Technique).
- Students replaced the previous sentence with the new vocabulary to positive, negative, or interrogative sentences.
- The teacher gave several questions and asked students to replace the sentence using substitution drill technique.

Post-activity	10 minutes	 Teachers and students reflected on learning. Students were given the opportunity to ask questions about material they had not yet understood about today's meeting learning material. The teacher and students made conclusions from the
		 material that has been studied. The teacher conveyed to students the material to be learned for the next meeting. Then the teacher closed today's learning by praying.

In the third meeting, the researcher taught simple present tense in nominal sentence. The researcher explained positive sentences, negative sentences and interrogative sentences in nominal sentences. The researcher explained the use of auxiliary verb, (I=am), (She, He, It=is), and (You, They, we=are). The researcher gave many examples of simple present tense in nominal sentences. After that the researcher gave example about substitution drills technique. The researcher changed the new subject / object in the sentence. Then, the researcher gave new vocabulary. The researcher asked the students to

change the previous sentence with the new vocabulary (substitution drill technique). Finally the students replaced the previous sentence with the new vocabulary given by the teacher to the new sentence.

 Administering post-test with a purpose of measuring grammar mastery in simple present tense of the seventh grade at MTs. Syafi'iyah Besuk-Probolinggo.

Differences attribute to application of the experimental treatment then evaluated by comparing the pretest and posttest score. The researcher wanted to know the effectiveness of using substitution drills to teach simple present tense at the seventh grade of MTs Syafi'iyah Besuk-Probolinggo. The effectiveness was known after finding out the significant difference between the students' grammar scores before and after being taught by using substitution drills. The significant difference was found by comparing the pretest and posttest scores.

B. Population, Sample and Sampling

1. Population

Ary (2010:148) stated that population was defined as all members of any well-defined class of people, events, or object. The term population as used in research to all members of a particular group. In this research, the population were all the students of the seventh grade class of MTs. Syafi'iyah Besuk Probolinggo. The seventh class consisted of 3 classes

that were VII A consisted of 21 students, VII B consisted of 27 students and VII C consisted of 28 students.

2. Sample

Sample was a proportion of a population (Ary, 2010:148). According to Fraenkel & Wallen (2005:92) sample in the research study was the group on which information was obtained. Sample was one of that was representative of the population from which it was selected. Representative sample was a sample that was similar to the population on all characteristics. It meant that a good sample must be representative of entire as possible, so that the generalization of the sample as true as the population. In this research, the sample class was VII A as a control and experiment class. This class consisted of 21 that consisted of 13 female and 8 male students in VII A class of MTs. Syafi'iyah Besuk Probolinggo.

3. Sampling

Sampling was the process of taking sample. In this research, the researcher used purposive sampling to take sample from population and it represents the entire population. Purposive sampling also referred to as judgment sampling sample elements judged to be typical, or representative, are chosen from the population. The assumption was that

errors of judgment in the selection will counterbalance one another (Ary, 2010:156).

In purposive sampling, the researcher used expert judgment to take some representatives or typical cases from population. First, identify important variation sources of population. Chose the cases that were suitable with the variation sources. According to an English's teacher, all the students of the seventh grade have similar characteristics; their mastery on English were average. Furthermore, substitution drills technique had never used in teaching English especially in simple present tense. Based on this condition, the researcher chose VII A class.

C. Research Instrument

Instrument of the research was tool used by the researcher in collecting data. It meant any research needs instrument for gathering data. In this study, the instrument used to collect data was in the form of test. Test was suitable instrument to this research since the purpose of the research was to find out the effectiveness of using substitution drills toward the students' ability in simple present tense. By using test, the researcher could assessed the students' grammar ability in simple present tense to determine whether substitution drills effective or not in teaching grammar.

The researcher used test in this research. Test was used to measure an individual's knowledge or skill in a given area or subject. They were mostly

used in schools to measuring or the effectiveness of instruction (Fraenkel & Wallen, 2005:129). The purpose of this kind of test was to establish how successful individual students, group of students, or the courses themselves have been in achieving the objectives. It meant that the test had to represent the structure or skill that will be tested. It also had to be appropriate to the grade of the students that will be tested.

The instrument of this research was used grammar test. Test was process of measuring students' knowledge and ability of the student, so the researcher should made a good test. A good test must fulfilled and considered the standardized of test itself. Measuring a good test, there were some aspects to make a good test, there were: validity and reliability.

D. Validity and Reliability Testing

1. Validity

Validity was the extent to which inferenced made from assessment results are appropriate, meaningful, and useful in terms of the purpose of the assessment (Brown, 2003:22). Validity refers to the extent to which an instrument measured what it was supposed to measure (Fraenkel & Wallen, 2005:113). It meant that the test could be valid when it measured what was supposed to measure. To ensure whether the test had a good validity, the researcher used face validity, construct validity, and content validity (The result of validity testing see appendix 6).

a) Face Validity

Face validity referred to a test could looked measure what was supposed to measure. It meant that the test should look clear or the instruction must be understandable for the students. The test in this research was design to measure students' ability in simple present tense. Thus, to achieve face validity, the researcher provided the instruction on the paper test. In this study, the face validity was done through validator by the experts (see appendix 5). The purpose of the face validity which was used in this research was to check some aspects that were consideration in the test, they were:

- 1) To check that the instruction must be clear and understandable for the students.
- 2) The test was suitable with syllabus and their level.
- 3) Time allocation must be given clearly.

b) Content Validity

Gay (2012:161) stated that content validity is compare content of the test to the domain being measured. If a test actually samples the subject matter about which conclusion are drawn, and if it requires the test taker to perform the behavior that was being measured, it can claim content-related evidence of validity, often popularly referred to as content validity (Brown, 2003:22). Content validity referred to whether or not the content of the manifest

variables (e.g items of a test or question of a questionnaire) was right to measure the latent concept (self-esteem, achievement, attitude).

Content validity was the test that if had a good content was looked at from the content of test. It meant that a test has valid if the content of test was a representative among lesson given. The researcher combined both between the content of test and the material of test to know the test was valid or not. In this study, the content validity referred to the Curriculum of 2013 as the school had implemented when the researcher conducted this research. The test was designed based on main competence and basic competence in the Curriculum of 2013. The content validity could be seen in the table 3.1. In this case the content validity was the researcher used the curriculum, syllabus and the lesson plan, to measure the student ability in grammar especially simple present tense because based on learn the curriculum, syllabus and lesson plan there was some goals that the students must be mastered in grammar especially simple present tense in descriptive text of first semester.

Table 3. 2 Content Validity

Kompetensi Inti	Kompetensi Dasar
3. Memahami dan menerapkan pengetahuan (factual,konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni budaya terkait fenomena dan kejadian tampak mata.	fakta yang diperlukan untuk mengungkapkan kegiatan rutinnya (generic structure/

Table 3. 3 Table of Content Validity of Test

Competence Indicators	Test Items		
indicators	Pre-Test	Post-Test	
Students can describe the verbal and nominal sentence of simple present tense (positive, negative and interrogative	Simple Present Tense test	Simple Present Tense test	
sentences)			

From the table above, the test had a content validity because there was appropriateness between the test and the indicator. It was appropriate with course objectives based on syllabus of the seventh grade of junior high school.

c) Construct Validity

Brown (2003:25) stated that construct validity is any theory, hypothesis, or model that attempts to explain observed phenomena in universe of perceptions. Construct may or may not be directly or empirically measured their verification often requires inferential data. Based on the theories above the researcher created the test based on the material that was suitable for the students at seventh grade of MTs. Syafi'iyah Besuk-Probolinggo. Furthermore, in the class the researcher asked the student used the suitable test for the student at seventh grade of MTs. Syafi'iyah Besuk-Probolinggo the test is about simple present tense. This test was to measure the students' ability in grammar especially in simple present tense. To measure the construct validity, the researcher made a blueprint (see appendix 1).

2. Reliability Testing

Litosseliti, (2010:55) stated that reliability refers to our measure repeatedly delivering the same (or near same) result. A reliable test was consistent and dependable. If the researcher gave the same test to the students or matched students on two different occasions, the test should yield similar result. The issue of reliability of a test may best be addressed by considering a number of factors that may contribute to the unreliability test (Brown, 2003:20). Reliability referred to researchers' measure repeatedly delivering the same (or near same) results. Ideally, if

researchers used the same measured with the same people under the same conditions, the measure should give the same result (Litosseliti *et al*, 2010: 55). It can be said that a reliable test was consistent and dependable. To know the reliability of instruments used in this research, the researcher had tried them out before conducting them into the pretest and posttest. SPSS 18.0 for windows program was used to compute the reliability of instrument.

Table 3.4 Cronbach's Alpha Interpretation Based on Triton

Cronbach's Alpha	Interpretation
0,00-0,20	Less reliable
0,21-0,40	Rather reliable
0,41-0,60	Quite reliable
O,61-0,80	Reliable
0,81-1,00	Very reliable

Here the result of try out test:

Table 3.5 Reliability Testing of Pre-test

Case Processing

Summary

		N	%
Cases	Valid	28	100.0

Excluded	0	.0
а		
Total	28	100.0

 a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's	N of	
Alpha	Items	
.744	30	

Based on table 3.5 *reliability Statisctics*, the result of *Cronbach's Alpha* of pre-test was 0.744 it was higher than 0.05 so, all of the item of test were reliable.

Table 3.6 Reliability Testing of Post-test

Case Processing Summary

		N	%
Cases	Valid	28	100.0
	Excludeda	0	.0
	Total	28	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

renability otatiotics		
Cronbach's		
Alpha	N of Items	
.747	30	

Based on table 3.5 *reliability Statisctics*, the result of *Cronbach's Alpha* of post-test was 0.747 it was higher than 0.05 so, all of the item of test were reliable.

E. Normality and Homogeneity Testing

1. Normality Testing

Normality testing was used to measure whether the distribution of test was in normal distribution or not. Priyatno (2012: 33 in Arumsari 2014: 56) said that the normality of data was important because the data could be considered to represent the population when it was in normal distribution. In this research to measure the normality testing, the researcher used SPSS with One-Sample Kolmogorov-Smirnov method.

Normality testing was conducted to determine whether the data were had normal distribution or not. The researcher used SPSS.18 One-Sample Kolmogorov-Smirnov test by the value of significance (α) = 0.050. Basic decisions making in normality testing were as follows:

- a. If the significance value > 0.050, the data had normal distribution.
- b. If the significance value < 0.050, the data did not have normal distribution.

Table 3. 7 The Result of Normality Testing

One-Sample Kolmogorov-Smirnov Test

	<u> </u>		
		Pre_test	Post_test
N		21	21
Normal Parameters ^{a,b}	Mean	71.86	76.29
	Std. Deviation	9.457	10.621
Most Extreme	Absolute	.171	.116
Differences	Positive	.135	.116
	Negative	171	113
Kolmogorov-Smirnov 2	7_	.782	.530
Asymp. Sig. (2-tailed)		.574	.941

- a. Test distribution is Normal.
- b. Calculated from data.

Based on the result of normality testing, the significance of pre-test in *Kolmogorov-smirnov* was 0.574 and it was higher than 0.05. The result of post-test in *Kolmogorov-Smirnov* was 0.941 and it was higher than 0.05, so it could be concluded that the data was normal.

2. Homogeneity Testing

Homogeneity testing was intended to know whether the variance of data was in homogeneous or not. In this case, the researcher wanted to find out the variance score of the sample. In this case to measure the homogeneity testing the researcher analyzed the sample by using SPSS 18.00 (ANOVA).

Homogeneity testing was conducted to know whether the data had a homogeneous variance or not. The value of significance (α) = 0.050. Basic decisions making in homogeneity testing were as follows:

- a. If the significance value > 0.050, the data distribution was homogeneous.
- b. If the significance value < 0.050, the data distribution was not homogeneous.

Table 3. 8 The Result of Homogeneity Testing

Test of Homogeneity of Variances

Hasil			
Levene Statistic	df1	df2	Sig.
,171	1	40	,682

Based on the result of homogeneity testing, the significance was 0.682 and it was higher than 0.05, so it can be concluded that the data distribution was homogeneous.

F. Data Collecting Methods

In this step method of collecting data was to obtain the data in the research. Meanwhile, the data of this study was collected by administering test. To collect data the researcher used two grammar tests, pre-test, and post-test. The function of pre-test was to know the students' score before being taught using substitution drills. Meanwhile the post-test was to know the

students' score after being taught using substitution drill technique. The technique of collecting data was clarified below:

1. Pre-test

The researcher conducted pre-test at the first meeting. It was conducted to know the students score in grammar, and also to know how far the students' ability in the simple present tense. In this research the researcher chose grammar especially simple present tense. The researcher chose the simple present tense because the students often made error in using to be of simple present tense for any subject. And also, the students also still got confused to determine when the students should use -s/-es addition and when the students did not use the -s/-es addition. Besides that, in the curriculum of seventh grade the students should had grammar mastery especially in simple present tense. The researcher conducted pretest to know how far students' ability in simple present tense before they get the treatment. The form of the pre-test was in the form of multiple choice and essay which simple present tense was used. The researcher wanted to know the students' score in grammar especially in simple present tense. It was done on January 28th 2019. The test consisted of 25 multiple choice and 5 essays (see appendix 2). The students' competence before giving treatment got mean of students' score was 71.89.

2. Post-test

After all of treatment processes have been given to the students, the researcher gave post-test. Post-test was done after giving treatment to measure how significant of the influence of giving those assignments, the procedures of giving post-test were equal pre-test procedure that was test which simple present tense was used. The researcher wanted to know the students' score in grammar especially in simple present tense. Post-test was given in the last meeting of teaching learning process. It was used to measure the students' ability after given treatment. It was done on February, 11th 2019. The test consisted of 25 multiple choices and 5 essays (see appendix 3). After the researcher knew the score of the test, the researcher compared the pre-test and post-test score.

G. Data Analysis

Ary (2010:32) stated that analyzing the data was the data collected in research must be analyzed. Quantitative data were usually in the form of numbers that the researcher analyzed using various statistical procedures. Even verbal data, such as compositions written by high school students, would be converted through the scoring process to a numerical form. The analysis of the numerical data in quantitative research provided evidence that supported or failed to support the hypothesis of the research. In this research, the researcher used a quantitative data analysis technique by using statistical

method. This method was used to find the significant difference on the students' score before and after being taught by using substitution drills technique. To know the effectiveness of substitution drills technique in teaching simple present tense, the data was collected from students' score in pre-test and post-test. Then the data which were gained from those two tests were analyzed by using *t*-test for dependent sample, this test was also known as the correlated or non-independent or *Paired-Sample-t test*. The measure was to be analyzed by the dependent *t* test was the mean difference between the paired scores. Pre-test and posttest scores of the same individuals are an example of paired score (Ary,2010:176). *Paired-Sample-T test* was used when the samples were pair or correlate where each individual results in two data. In other words the scores for pre-test and post-test were correlated because those scores were resulted by same individuals. To know the significant differences researcher used SPSS 18.0 version.