

CHAPTER III

RESEARCH METHOD

This chapter presents the research method; it focuses to the method used in conducting this study which covers (a) research design, (b) subject of the study, (c) research instrument, (d) validity and reliability testing, (e) research procedure, (f) data collecting method, (g) data analysis, (h) hypothesis testing.

A. Research Design

In this study, the researcher used pre – experimental design with one group pre-test - post-test. The researcher used this design because the researcher could not determine the homogeneity between the two or more groups to be studied. Besides that, it is difficult to anticipate the external factor which may give intervention that can affect the result of this study, such as the interaction which may happen between the experimental and the control group. That is why in this study the researcher just takes one group to be studied. In this simplest pretest–posttest design, researchers gather data about some outcome through a single pretest, administer a treatment, and then gather posttest data on the same measure (Bell, A. B., 2010). So, in this research there is no control group, the researcher observe or measure a single group not only after being exposed to a treatment of same sort, but also before.

The design of this research can be seen at the table below:

Pre-test	Treatment	Post-test
O1	X	O2

The procedures of pre-experimental research that use one group pretest-posttest design:

- 1) Administering a pre-test with a purpose of measuring grammar mastery of simple present tense of the second grade students at MTsN Langkapan Srengat.
- 2) Applying the experimental treatment in teaching Simple Present Tense using Jeopardy game.
- 3) Administering a post-test with a purpose of measuring grammar mastery of simple present tense of the second grade students at MTsN Langkapan Srengat.

B. Population, Sampling and Sample

a. Population

According to Bret Hanlon & Bret Larget (2011: 7) a population is all the individuals or units of interest. It means that a “population” consists of all the subjects which want to be studied. In this research, the researcher took the population that is the entire eight grade students of MTsN Langkapan Srengat which consist of 6 classes with the total student are 227 students.

b. Sampling and Sample

According to Bret Hanlon & Bret Larget (2011: 7) a sample is a subset of the individual in a population. Experienced researchers start with the total

population and work down to the sample. In selecting the sample of the study, sampling technique is needed to take a representative sample of the whole population. In this research, the researcher used purposive sampling technique. According to Cohen et al., (2007) in purposive sampling technique, sample is satisfactory to specific needs. As its name suggests, the sample has been chosen for a specific purpose.

The researcher chose purposive sampling because the researcher wanted to use a class that has average proficiency in learning English.. From this purpose, the researcher got advice from the teacher in this school to choose class VIII – D. Finally, class VIII – D was chosen as the sample of the study which consists of 39 students; 21 male and 18 female.

C. Research Instrument

In this study, the instrument used to collect the data was in the form of test. Test is a systematic procedure for observing person and describing them with either a numerical scale or a category system (Nitko, 1989:32). Test is the suitable instrument to this research since the purpose of the research is to find out the effectiveness of using Jeopardy game towards the students' achievement in simple present tense. By using test, the researcher can assess the students' grammar ability in Simple Present Tense which can be used to determine whether Jeopardy game effective or not in teaching grammar.

In relation to this study, the researcher chose writing test to measure grammar ability of the students. The form of the test is descriptive writing task

where the subjects of the study are asked to make descriptive paragraph in which simple present tense is used. By using this kind of test, the researcher used communicative grammar testing where the test provides more context than only a single sentence. It means that the students are given a chance to use simple present tense accurately, meaningfully and appropriately. The test which is given in the pre-test and post-test is in the same level of difficulty but with different topic.

D. Validity and Reliability Testing

1. Validity

The most complex criterion of an effective test and the most important principle of language testing is validity. A test should test what the writer wants to test. Test validity presupposes that the writer can be explicit about what is to be tested and takes steps to ensure that the test reflects realistic use of particular ability to be measured (Weir, 1993:19). To measure whether the test has a good validity, the researcher analyzes the test from content validity and face validity.

a. Content validity

Content validity is about what actually goes into the test. To have content validity, a test's content must be seen as representative of the subject area being covered. In achievement test, for example, the course content must clearly be represented in test itself (Johnson, 2001: 301). A test is said to have content validity if its contents constitutes a representative sample of the language skills, structures, etc. being tested. It is obvious that

grammar test must be made up of items testing knowledge of grammar. So, content validity is the correspondence between curriculum objectives and objectives being assessed. The instrument of this research had a content validity because the test was designed based on Standard Competence – Basic Competence in KTSP 2006. Then, the researcher made up scoring rubric based on learning objective to get a reliable scoring of grammar in students' writing.

Here the description of Standard Competence and Basic Competence of KTSP:

Standard Competence	Basic Competence
6. Express the meaning of the functional written text and simple short essay in the form of descriptive, and recount to interact with the surrounding environment.	<p>6.1 Express the meaning in the form of simple short functional written texts by using a variety of written language accurately, fluently and appropriately to interact with the surrounding environment.</p> <p>6.2 Reveal the meaning and rhetorical stages of a simple short essay using a variety of written language accurately, fluently and appropriately to interact with the surrounding environment in the form of <i>descriptive</i> and <i>recount</i> text.</p>

Material	Indicator	Sub Indicator
<ul style="list-style-type: none"> • Vocabulary related to the theme and text • Simple Present Tense • Descriptive text. 	Students are able to use simple present tense in writing descriptive paragraph.	<ul style="list-style-type: none"> • Students are able to use correct word order in describing a certain picture. • Students are able to use appropriate verb spelling of simple present tense in describing a certain picture. • Students are able to use appropriate subject – verb agreement in describing a certain picture.

		<ul style="list-style-type: none"> • Students are able to connect the simple present tense structure with the meaning which wants to be intended in communication appropriately. • Students are able to use simple present tense in relation with the context (picture being discribed) appropriately.
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b. Face validity

Face validity, on the other hand, is to do with what the world thinks of the test, (Johnson, 2001: 302). It means that the test is said to have face validity if it looks as if it measures what it is supposed to measure. The researcher provided the writing task for the students in the form of descriptive writing task in which Simple Present Tense is used. The test in this research pretended to measure students' grammar mastery of Simple Present Tense, so the researcher provided the prompt to instruct students to write a descriptive paragraph.

In this test, there are some aspects that were considered from this test to make a good test based on the face validity. They are:

- 1) The instruction must be clearly for the students, so the students are able to understand what they should do in that test.
- 2) In this test, the students were instructed to do the test in the form of writing task (related with the use of simple present tense).
- 3) The consideration of time allocation must be suitable so that the students are able to supposed, when they finish their task before the time was up.

2. Reliability

Reliability is the consistency of the instrument in producing the same score on different testing occasions or with different raters. Since the type of test belongs to authentic testing, the researcher doing *inter-rater reliability* to ensure whether the test is reliable. Inter-rater reliability refers to the degree of consistency of scores given by two or more scorers to the same set of oral or written texts (Sarosdy et al. 2006: 135). Inter-rater is achieved when two scorers or two raters do the scoring. Then, to find out the reliability, two sets of scores gotten from the two raters are calculated by using *Pearson Product-Moment* SPSS 16.0 for windows.

The researcher conducted tryout test to know the reliability of the instrument which was used in this research. The tryout test was conducted in A class which consists of 37 students. The researcher divided the class into two groups. The first group consists of 18 students to do the tryout test for pre-test instrument and the second group consists of 19 students to do the tryout test for post-test instrument.

The results of the students' score in try out test for pre-test and post-test instrument are stated as follows:

Table 3.1 Students' Score in Tryout Test for Pre-Test Instrument

No.	Name	Score from scorer 1	Score from scorer 2
1.	ATJ	76	76
2.	ARP	76	60
3.	ADN	84	76
4.	AMYP	84	76

5.	AG	93	93
6.	AMA	84	76
7.	DS	76	76
8.	MIA	68	68
9.	MNH	84	84
10.	MAS	76	60
11.	MAB	68	68
12.	MIS	84	76
13.	NKS	76	68
14.	NK	84	76
15.	Rma	76	76
16.	Rmu	84	76
17.	SFZ	76	76
18.	SNA	93	93

Table 3.2 Students' Score in Tryout Test for Post-Test Instrument

No.	Name	Score from scorer 1	Score from scorer 2
1.	ARF	60	60
2.	ACH	68	68
3.	EY	76	84
4.	IWA	84	84
5.	IQU	88	88
6.	KMA	68	60
7.	LM	76	76
8.	MFAC	84	76
9.	MAMS	84	76
10.	MFUA	76	76
11.	MKN	84	84
12.	MZA	68	60
13.	NM	68	68
14.	RSB	76	76
15.	SW	68	68
16.	SSLN	76	68
17.	TIL	76	76
18.	WDA	76	76
19.	YN	76	76

The results of those two tests both for pre-test and post-test instrument were scored by two scorers and then the scores were calculated by using *Pearson Product-Moment* at SPSS.

The criteria of reliability instrument can be divided into 5 classes:

1. Coefficient Correlation between 0,00 – 0,20 : less
2. Coefficient Correlation between 0,21 – 0,40 : rather
3. Coefficient Correlation between 0,41 – 0,60 : enough
4. Coefficient Correlation between 0,61 – 0,80 : reliable
5. Coefficient Correlation between 0,81 – 1,00 : very reliable

The results of *Pearson Product-Moment* calculations are shown as follows:

Correlations of Pre-Test Score (Try out)

	VAR00001	VAR00002
Pearson Correlation	1	.777**
Sig. (2-tailed)		.000
N	18	18
Pearson Correlation	.777**	1
Sig. (2-tailed)	.000	
N	18	18

From the correlation analyzing above, the researcher got the correlation of two scores of pre-test instrument. The value of correlation is 0.777 for tryout pre-test instrument. This correlation was included in the coefficient correlation between 0,61 – 0,80 which was included into reliable level.

Correlations of Post-Test (Try out)

	VAR00001	VAR00002
Pearson Correlation	1	.859**
Sig. (2-tailed)		.000
N	19	19
Pearson Correlation	.859**	1
Sig. (2-tailed)	.000	
N	19	19

From the correlation analyzing above, the researcher got the correlation of two scores of post-test instrument. The value of correlation is 0.859 for tryout post-test instrument. This correlation was included in the coefficient correlation between 0,81 – 1,00 which was included into very reliable level.

It can be concluded that both instrument in pre-test and post test was reliable so it can be used as appropriate instrument to measure students' ability in simple present tense without need any revising.

E. Research Procedure

Here the procedures of pre-experimental research that use one group pretest-posttest design:

- 1.) The researcher administered a pre-test in D class at April 25th, 2015 with a purpose of measuring grammar mastery of simple present tense of this class.

2.) After conducting the pre-test, the researcher gave treatment to the students twice. The first treatment was conducted at April 29th, 2015 and the second treatment was conducted at May 13th, 2015. The researcher applied Jeopardy game in teaching simple present tense. In this research, Jeopardy game becomes a teaching strategy which can be used to encourage the students' motivation to learn. The Jeopardy format challenges the students to use their knowledge in a different way.

In this research, there are some steps to conduct a treatment in the classroom. Those are:

- a. Prepare the Jeopardy template using Microsoft's PowerPoint
- b. First, the researcher gives the example about the use of simple present tense that is by describing a certain picture (animal picture) and then together analyzes the text (*generic structures & grammatical features*).
- c. Divide the class into 6 groups. Where one group consists of 6 until 7 students.
- d. Then explain that each student will take a turn as group's spokesperson. It means that every member of the group should participate in the game.
- e. Use lottery to decide whose group who will play first.
- f. Allow the spokesperson of the first group to choose the topic and point value the group will attempt to describe correctly.

- g. Click on the requested point value action button to reveal the picture that they should describe. The most difficult one is the highest point value.
 - h. Gives time for the first group to discuss the description of the picture (make simple descriptive paragraph) in limited time.
 - i. Lets the other group to make the simple descriptive paragraph too.
 - j. If the spokesperson of the first group could not describe on time, immediately call on the next group to describe.
 - k. If the students make mistake in using simple present tense, the teacher directly gives feed back.
 - l. Continue playing until all pictures have been described and tally the points and declare the winner.
 - m. The researcher ends the meeting after the students learn Simple Present Tense by using Jeopardy game.
- 3.) After giving the treatment to the students, the researcher administered a post-test at May 15th, 2015 with a purpose of measuring students' grammar mastery of simple present tense of D class.

F. Data Collecting Method

Data collecting method is the method to obtain data. Data in this research is in the form of students' score. Hence, the data was collected by administering test. The data was collected by using two grammar tests in the form of writing task; pretest, posttest. The technique of collecting data is clarified as follows:

1. Pre-test

A pre-test provides a measure on some attribute or characteristic that you assess for participants in an experiment before they receive a treatment, Creswell (2008: 301). The researcher conducted pre-test to know how far students' ability in Simple Present Tense before they get the treatment. The form of the pretest was in the form of descriptive writing task where the subjects of the study were asked to make descriptive paragraph in which simple present tense is used. The researcher wanted to know the students' score in grammar. It determined the readiness for instructional program and to diagnose individual's specific strengths and weakness in the simple present tense.

2. Post-test

After all of treatment process has been given to the students, the researcher gave post-test. Post-test was done after giving treatment to measures how significant of the influence of giving those assignments. The procedures of giving post-test were equals pre-test procedure that is writing task where the students were asked to make descriptive paragraph in which simple present tense is used.

G. Data Analysis

In this study, the researcher used a quantitative data analysis technique using statistical method. This technique is used to find the significant difference on the students' scores before and after being taught by using Jeopardy game. To

know the effectiveness of Jeopardy game in teaching Grammar, the data was collected from students' score in pre-test and post-test. Then, the data which was gained from those two tests was analyzed by using *Paired-Samples T-test* at SPSS 16.0 for windows. *Paired-Sample T-test* is used when the samples are paired or correlated where each individual results in two data. In other words, the scores for "pre test" and "post test" are correlated because those scores are resulted by one individual.

H. Hypothesis Testing

If the significance level is smaller than the standard level of significance 0.05, the Alternative Hypothesis (H_a) is accepted and the Null Hypothesis (H_0) is rejected. It means that there is a significant difference on students' achievement in simple present tense before and after using Jeopardy game which indicates that Jeopardy is effective to increase students' score of Simple Present Tense. In contrast, if the significance level is bigger than the standard level of significance 0.05, the Null Hypothesis (H_0) is accepted and Alternative Hypothesis (H_a) is rejected. It means that there is no significant difference on students' achievement in simple present tense before and after using Jeopardy game which indicates Jeopardy is not effective to increase students' score of Simple Present Tense.