

CHAPTER III

RESEARCH METHOD

In this chapter, the researcher presents the description of the research method. It discusses the method used in conducting this study. The discussion covers research design, population and sample, research instrument, variables of the study, validity and reliability testing, normality and homogeneity testing, data collecting method, procedures of the research, and data analysis.

A. Research Design

This study belonged to quantitative study. Daniel (2010) states that quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon. Donald et al (2010) state that experimental research involves a study of the effect of the systematic manipulation of one variable(s) on another variable.

This study was classified into Quasi-experimental design. The researcher used Quasi-experimental research design to investigate the effectiveness of One Day One Sentence strategy in teaching vocabulary and to enhance students' vocabulary mastery. In this research, the treatment was conducted by using One Day One Sentence strategy in teaching vocabulary

about descriptive text. In this case, the researcher used Quasi-experimental design means used two classes as experimental group and control group but only the experimental group who got the treatment and both group got pre-test and post-test to know the result.

In this study the researcher administered pre-test and post-test with the experimental and control groups design. J.W Creswell (2009:160) states that the experimental group A and the control group B are selected without random assignment. The pre-test and post-test were given to the both of groups, but only the experimental group which given treatment. Therefore, the researcher administered pre-test and post-test to the both of groups and the experimental group was taught by One Day One Sentence strategy.

Table 3.1 The Illustration of Research Design

Group	Teaching Vocabulary	Treatment	Teaching Vocabulary
Experimental	Pre-test	Using ODOS strategy	Post-test
Control	Pre-test	Without ODOS strategy	Post-test

B. Population and Sample

1. Population

Seltman (2015:34) defined population is as the entire set of actual or potential observational units. It can be said that population is all the subjects which the data collected. The population of this study was all of the seventh grade students of SMPN 1 Ngunut Tulungagung which consists of 352 students. Those were divided into eleven classes. Class A, B, C, D, E, F, G, H, I, J, K. It can be seen in the table below:

Table 3.2 Population of Research

No	Class	Gender	
		Male	Female
1.	VII A	15 students	17 students
2.	VII B	16 students	16 students
3.	VII C	18 students	14 students
4.	VII D	19 students	13 students
5.	VII E	14 students	18 students
6.	VII F	16 students	16 students
7.	VII G	15 students	17 students
8.	VII H	18 students	14 students
9.	VII I	17 students	15 students
10.	VII J	20 students	12 students
11.	VII K	20 students	12 students

2. Sample

Sample is the representative of population which observed. Ary et al. (2010:148) state that sample is the small group that is observed. It means that several students who become the subject of the research. There were eleven classes which taught English with the same materials. Here the researcher used random sampling technique. It means the researcher chose the sample randomly from all of the available population. They were two classes as the sample of the study; they were VII-H class consisted of 32 students as the experimental group and VII-G class consisted of 32 students as the control group. So, the total sample were 64 students.

C. Variables of The Study

A variable refers to a characteristic or attribute of an individual or an organization that can be measured or observed and that varies among the

people or organization being studied (Creswell, 2009:50-51). On the other word, variable is the condition that a researcher manipulates, controls or observes in the study. There were two main variables of this study; independent variable and dependent variable.

1. Independent variable

Independent variables are those that (probably) cause, influence, or affect outcomes. They were also called treatment, manipulated or predictor variables. The independent variable in this study was One Day One Sentence as a strategy in teaching vocabulary.

2. Dependent variable

Dependent variables were those that depend on the independent variables; they were the outcomes or results of the influence of the independent variables. Other names of dependent variables are criterion, outcome, and effect variables. The dependent variable in this study was the students' vocabulary mastery.

D. Research Instrument

Research instrument can be defined as the tool for collecting the data. This instrument helped the researcher to collect the data information from the object of the study.

In this study, the instrument which applied by the researcher was test. There were two kinds of test namely, pre-test and post-test. This

instrument aimed to measure the students' vocabulary mastery before and after being implemented by One Day One Sentence (ODOS) strategy.

Each of the test had a different purpose. The first test or the pre-test was aimed to measure the students' vocabulary mastery before implementing the One Day One Sentence strategy. While the post-test was aimed to measure the students' vocabulary mastery after implementing the One Day One Sentence strategy. Those test were also to know is the One Day One Sentence strategy effective or not to be apply in teaching vocabulary.

In this study, the researcher decided to take topic based on the curriculum that was about descriptive text. This topic divided into two kinds of item test namely Word Search and Missing Letters. Those were applied for both pre-test and post-test with the different questions. The scoring of each kind of test based on the difficulty level of each test. Each of the kind of test consisted 10 question. In Word Search test, each item of test had 4 point. If the students can answer each question correctly, they get 4 then the score will be $10 \times 4 = 40$. Meanwhile, each item of Missing Letters test had 6 point because in this test was more difficult than the previous one. If the students can answer each question correctly, they get 6 then the score will be $10 \times 6 = 60$. The maximum score of all items was 100 point which taken from $(10 \times 4 = 40) + (10 \times 6 = 60) = 100$ points. In other hand, if the students answer with incorrect answer they will get 0.

E. Validity and Reliability Testing

1. Validity

Ary et al (2010) states that validity is the most important consideration in developing and evaluating measuring instruments. Historically, validity was defined as the extent to which an instrument measured what it claimed to measure. The focus of recent views of validity was not on the instrument itself but on the interpretation and meaning of the scores derived from the instrument.

a. Content Validity

Content validity is a kind of validity which depends on the analysis of the language being tested and a particular test. The focus of this kind of validity was in the content. Hughes (2003:26) stated that test is considered to have content validity if its contents constitutes a representative sample of language skills, structures, etc. being tested. It means that the test must be appropriate with the material in the certain level of education. For developing the test items, the writer had to know the curriculum which being used in the school to conduct the research. The researcher only focused on the main-competence and basic-competence related vocabulary descriptive text because this study wanted to know the students' vocabulary achievement by developing a sentence.

Table 3.3 Main Competence and Basic Competence in Curriculum 2013

Main Competence	Basic Competence
4. Mencoba, mengolah dan menyaji dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang di pelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori	4.7 Menyusun teks deskriptif lisan dan tulis, sangat pendek dan sederhana, terkait orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan, secara benar dan sesuai konteks.

Table 3.4 Content Validity of the Test

Competence	Indicators	Material	Test Item
Membuat kalimat deskriptif tulis, sangat pendek dan sederhana, terkait orang, binatang, dan benda	Siswa mampu mengidentifikasi kata dan membuat kalimat deskriptif tulis berupa gambaran umum tentang suatu topik terkait dengan orang, binatang, dan benda secara benar dan sesuai konteks	Descriptive Text	Word Search
	Siswa mampu mengidentifikasi kata		Word Search

	dan membuat kalimat deskriptif tulis tentang ciri-ciri khusus yang dimiliki oleh orang, binatang, dan benda secara benar dan sesuai konteks		
	Siswa mampu menyusun kata dan membuat kalimat deskriptif tulis berupa gambaran umum tentang suatu topic terkait dengan orang, binatang, dan benda secara benar dan sesuai konteks		Missing Letters
	Siswa mampu menyusun kata dan membuat kalimat deskriptif tulis tentang ciri-ciri khusus yang dimiliki oleh orang, binatang, dan benda secara benar dan sesuai konteks		Missing Letters

b. Construct Validity

Bachman and Palmer (1996:21) state that construct validity refers to the meaningfulness and appropriateness of the interpretations

that we make on the basis of test score. While Heaton (1975:159) state that the construct validity was test which capable for measuring certain characteristic in accordance with a theory of language behavior and learning. By using construct validation it refers to the process of determining whether a test was actually measuring what it was intended to measure (Weigle, 2009:49).

c. Face Validity

Face validity is a term sometimes used in connection with a test's content (Ary, 2010:228). Face validity refers to a test can looks measure what is supposed to measure. It means that the test should look clear or the instruction must be understandable for the students. The test in this research was designed to measure students' vocabulary skill. Thus, to achieve face validity, the researcher provides the instructions on the paper test to ask students to write. In this study, the face validity was done through validator by the expert. The purpose of face validity which is used in this research is to check some aspects that are consideration in the test, they are:

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

2. Reliability

According to Gay (1992:161) reliability was the degree to which a test consistently measured whatever it measure, an absolute requirement to determine one variable effect to another. Besides, Arikunto (2013:178) states that reliability is used to know the degree of stability of the instrument. A test is reliable if the tool of measurement shows the consistency and stability of the test scores when the test is used in another occasion.

Reliability test instrument can be done by using Cronbach's Alpha. The instrument has a high degree of reliability if the value of Cronbach's Alpha obtained as follows:

Table 3.5 Cronbach's Alpha Interpretation

Cronbach's Alpha	Interpretation
0.00-0.20	Less Reliable
0.21-0.40	Rather Reliable
0.41-0.60	Quite Reliable
0.61-0.80	Reliable
0.81-1.00	Very Reliable

In the present study, to calculate the reliability of the test it used Kuder–Richardson formula 20 (K-R 20). The formula is as follows:

Table 3.6 Reliability of Pre-test from Try Out Score

Reliability Statistics

Cronbach's Alpha	N of Items
.795	20

From the table above, the value of Cronbach's Alpha was 0.795.

It means that the test is reliable.

Table 3.7 Reliability of Post-test from Try Out Score

Reliability Statistics

Cronbach's Alpha	N of Items
.821	20

From the table above, the value of Cronbach's Alpha was 0.821.

It means that the test is very reliable.

F. Data Collecting Method

Data collecting method is the way how the researcher get the data. The researcher used the instrument that was test to measure the effectiveness of using One Day One Sentence strategy. The researcher used test both pre-test and post-test to get the data. The way which going to collect the data is presented below.

1. Pre-Test

Pre-test used to measure the students' early vocabulary mastery of seventh grade at SMPN 1 Ngunut Tulungagung.

2. Post-Test

Post-test used to measure the students' vocabulary mastery after the treatment given. The purpose of giving post-test is to find out whether there is any significant difference between before and after implementing One Day One Sentence strategy.

G. Procedures of The Research

Treatment was given in experimental group after administering the pre-test. In this study, the researcher conducting treatment four times. The researcher used a technique namely One Day One Sentence. The researcher administered One Day One Sentence sheet to the students to make their own sentence everyday. Each student had to write a sentence in the sheet given. Then, they analyzed each word of sentence which classified into part of speech. So it could make the students had additional vocabulary and could build a sentence everyday.

The topics for the sentence was selected by the researcher. The topics used were related to the material that were discussed, that was about descriptive text. So, the students wrote the sentence by the topic given everyday for the treatment. The procedure of treatments was done by the researcher as below:

1. The first treatment was conducted on Monday, March 25th 2019 and involved 32 students of VII-H. The researcher gave explanation to the students how the learning activities were carried out to apply One Day One Sentence strategy. The topic in the first treatment was about describing animals and the use of simple present tense in a descriptive text. The procedures of the first treatment as follows:
 - a. The researcher explained about descriptive text, it contained of explanation, generic structure, purpose, language use and the use of simple present.
 - b. Then, after explained all about descriptive text, the researcher explained about One Day One Sentence strategy which would impact on their vocabulary mastery.
 - c. Next, the researcher gave the One Day One Sentence sheet to each of student in the class. The researcher explained about what would the students do with their work. Students could take the sheet to home and made it as their homework.
 - d. In the last 10 minutes, the researcher gave the evaluation about the materials which have been discussed.
2. The second treatment was conducted on Monday, 8th April 2019. The researcher gave the different topic for each treatment. The topic of the second treatment was about describing people. The procedures of the second treatment as follows:
 - a. The researcher explained about description of people, it contained of explanation, generic structure, language use and part of speech.

- b. Then, the researcher gave some examples about describing people, how to make sentences by using the structure and the language use, also classified the part of speech of each word.
 - c. The researcher took the One Day One Sentence sheet in the ODOS Box which have been collected by the students and gave the evaluation from the sentences which have been done by the students.
 - d. In the last 10 minutes, the researcher gave the evaluation about what have been discussed before and distributed the One Day One Sentence sheet to the students.
3. The third treatment was conducted on Saturday, 13th April 2019. The topic of the third treatment was about describing things. The procedures of the third treatment as follows:
 - a. The researcher explained about description of things.
 - b. After gave the explanation, the researcher gave some examples of describing things and how to make a sentence about describing things.
 - c. The researcher took the One Day One Sentence sheet in the ODOS Box which have been collected by the students and gave the evaluation from the students' work.
 - d. In the last ten minutes, the teacher gave the evaluation about what they have been discussed and distributed One Day One Sentence sheet.
4. The last treatment was conducted on Saturday, 20th April 2019. In the last treatment, the researcher reviewed all the topics which have been discussed in the meetings before. After that the researcher also gave the evaluation about the students' work that was making sentence by using the topic given.

H. Data Analysis

Data analysis is aimed to analyzed the data which has been collected. This data was to measure the students' vocabulary mastery before and after implemented by using One Day One Sentence strategy. This data was taken from the score of both test that were pre-test and post-test of the seventh grade students of SMPN 1 Ngunut Tulungagung which chosen as the sample of the study. This data focused on students' vocabulary mastery. For analyzing the data, the researcher used the statistical calculation of T-test in SPSS 16.0 version. T-test was used in order to find out the differences of the score of students vocabulary achievement after using One Day One Sentence strategy.

To find the significant difference of the pre-test and post-test score, the calculated data using T-test can be interpreted by: if the significance level < 0.05 , it can be concluded that there is a significant difference. However, if > 0.05 ,he significance different there is no significant difference on students' pre-test and post-test.