CHAPTER III

RESEARCH METHOD

In this part, the writer described about research method that used by the writer in conducting the research. It purposed to answer the problems of study, namely; time and place of the study, method and type of the study, subject and object of the study, data collecting procedures, endorsement of the data, and data analysis procedures.

A. Research Design

Based on the problem of the study, the researcher used quantitative approach. Because the aim of this study is to finds out the correlation between vocabulary learning strategies and the students' vocabulary size. Donald Ary stated that "Quantitative research Inquiry employing operational definitions to generate numeric data to answer predetermined hypotheses or questions."[1]

B. Research Type

The type of quantitative research in this study was correlation research. According to Donald Ary stated that "Correlational research is Research that attempts to determine the extent and the direction of the relationship between two or more variables."[2] Correlational research produces indexes that show both the direction and the strength of relationships among variables, taking into account the entire range of

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[1]Donal Ary, and friends., *Introduction to Research in Education Eigh Edition*, Wadsworth Cengage Learning, 2010. P.648.
[2]Ibid. P.639.

these variables.[3] Correlational research methods are used to assess relationships and patterns of relationship among variables in a single group of subjects. In some correlational studies, the researcher may be able to state a hypothesis about the expected relationship.[4] Correlational research is nonexperimental research that studies the direction and strength of relationships among variables. It gathers data on two or more quantitative variables from the same group of subjects (or from two logically related groups) and then determines the correlation among the variables. Correlational procedures are widely used in educational and psychological research. They enable researchers to better understand certain phenomena and to make predictions. Correlational designs are often valuable for generating hypotheses that can be further investigated in experimental or ex post facto research. Correlations must be interpreted appropriately. When assessing a correlation coefficient, one must take into account the population from which the sample was drawn, the shape of the distribution, the sample size, and its statistical and practical significance. The most serious error is to interpret correlation per se as an indicator of causation.[5]

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[3]Ibid. P.350.
[4]Ibid. P. 351.
[5]Ibid. P. 365.
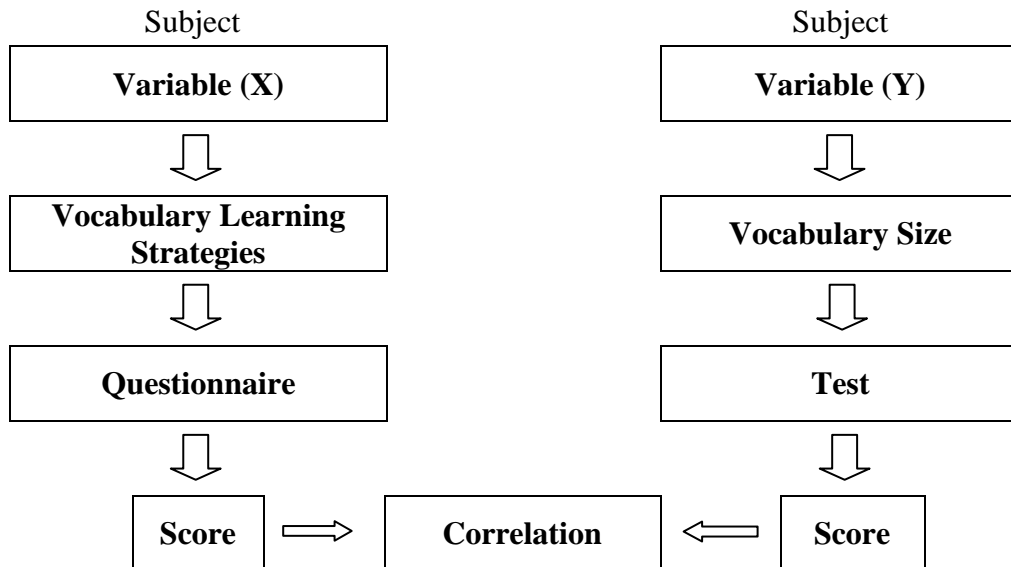
C.   Variable of the Study

The variables are the condition or characteristics that a researcher manipulates controls or observer. This study is a nonexperimental study. In nonexperimental quantitative research, the researcher identifies variables and may look for relationships among them but does not manipulate the variables.[6]

There are two kinds of variables in this research, the first variable is the students' vocabulary learning strategies score which is taken by how many strategies they use and how often they use it from the questionnaire given; it is considered as independent variable (variable X). The second variable is the students' vocabulary size score which is taken by how many vocabularies that they know from the test given; we considered it as dependent variable (variable Y). The students' vocabulary learning strategies from the questionnaire of vocabulary learning strategies that is carried out by Schmitt's taxonomy of vocabulary learning strategies based on Oxford's taxonomy of learning strategies, while the students' vocabulary achievement from the test of vocabulary was carried out by the work sheet of vocabulary size test based on "English Vocabulary Test" book by I.S.P. Nation.

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[6]Ibid. P.26.

The design of variables is below:

Subject		Subject
Variable (X)		**Variable (Y)**
⇩		⇩
Vocabulary Learning Strategies		**Vocabulary Size**
⇩		⇩
Questionnaire		**Test**
⇩		⇩
Score ⟹ **Correlation** ⟸ **Score**		

D.   Population and Sample

1. Population

The population of the study were the fourth semester students of English department of IAIN Palangkaraya academic year 2013. They were chosen as subjects of this research for the following reasons:

a. The students have been studying English for the period of time.

b. The students have been studying vocabulary course.

c. The students have been familiar with vocabulary learning.

2. Sample

The Method of sampling in this study was total sampling. Because number of the students less than one hundred, so the total number of population will be used as the sample. In the other hand, it was total sampling. According to Arikunto, if the population is less than one hundred, it is better to take all of the population as the sample or it is called as population study.

E.   Research Instruments

The research instrument plays an important role to collect data. There are five methods in collecting the data. They are questionnaire, interview, observation, test and documentation methods. In this research, the writer uses two of the five methods; they are questionnaire and test method.

The instrument used in this study is a 25-items questionnaire based on Schmitt's Taxonomy and 100-items of test adapted from "English Vocabulary Test" book by I.S.P. Nation. It is designed specifically for the purpose of this study. There are more or less 56 strategies from 6 categories in Schmitt's Taxonomy. Yet only 25 strategies are adopted in the questionnaire due to some limitation and appropriateness. For instance, in the Determination category, there are 3strategies about using a dictionary that may confuse the respondents; thus, they are grouped into 1 question. Another cut-off strategy in this category is "Analyze suprasegmental features" which was not suitable for the respondents' learning level.

The procedure of collecting the data of this research involved several steps. The first step is arranging the questionnaire. The second is trying-out the questionnaire to

measure whether or not it needed improvement. The third step is collecting and analyzing it for its validity and reliability. The fourth is distributing the questionnaire to the respondents and then collecting it. After collected the questionnaire, then analyze them. The fifth one is obtaining scores of vocabulary test from the vocabulary material and the last one was computing the data.

1. Questionnaire

Questionnaires are any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers.[7] The questionnaire in this research is used to measure the students' vocabulary learning strategies commonly used. In preparation for designing the questionnaire for this study, the researcher studied the content of learning strategies, vocabulary learning strategies, and how to construct a questionnaire from many sources: textbooks, journals, other research studies and by consulting the Study Advisors. The questionnaire for this study is based on Schmitt's taxonomy for vocabulary learning strategies since it is one of the most comprehensive lists of strategies available and it matched with the researcher's purpose of the study. However, modifications were made in order to suit the subjects' background knowledge, competence level, and learning environment.

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[7]Zoltán Dörnyei, Tatsuya Taguchi, *Questionnaires in Second Language Research*, Routledge, New York, 2010. P. 3-4

A. Questionnaire Construction

The questionnaire used in this study is constructed by the researcher with some adaptations from Schmitt's questionnaire presented in his taxonomy of vocabulary learning strategies. The information from the preparation step is used in the process of designing the questionnaire. Questionnaires in Indonesian language is constructed and revised under the guidance of the Study Advisors.

Consideration of making questionnaire in Indonesian language in order to make the respondents easier to understand the questionnaire and the data obtained appropriate as the researcher expectation. Based on literature from Zoltán Dörnyei, he stated that "The quality of the obtained data increases if the questionnaire is presented in the respondents' own mother tongue. It follows from this that the translated version of a questionnaire is usually the only version that the respondents see."[8]

B. Details of the Questionnaire

The vocabulary learning strategy questionnaire consisted of 2 parts as follows:

Part I: The respondents' personal information. The first part is designed to collect information concerning the students' general background information. Data in this section included the respondents' details about their age, gender, and how long the respondents have been studying English. The questions in this part were in the form of check list items.

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[8]Zoltán Dörnyei, Tatsuya Taguchi, *Questionnaires in Second Language Research*, Routledge, New York, 2010. P. 49

Part II: The questionnaire about students' use of vocabulary learning strategies. The 25-item questionnaires are asked about the frequency of the use of vocabulary learning strategies implemented by English gifted students. The following scales were used to indicate the frequency of the usage of each strategy:

0 = Tidak pernah

1 = Jarang

2 = Kadang-kadang

3 = Sering

4 = Selalu

2. Test

The second instrument used in this research is an objective test, and the writer used one type of objective test, which is *multiple-choice type.* Multiple-choice type can be scored objectively and can measure learning out come directly. In this research, the test consisted of 100 items with four alternatives. The alternatives include one correct answer and three wrong answers. To have a valid and reliable vocabulary test, the researcher takes the test materials from book entitled "English Vocabulary Test" by I.S.P. Nation. The vocabulary test in this research is used to measure the students' vocabulary size.

F.   Data Collection

The function of data collecting is to determine the result of the research. The procedure of collecting the data of this research involved several steps.

1. The first step is a review of literature about language learning strategies to overview and familiarize. The test instrument and the questionnaires in Indonesian language were used to collect data. The questionnaires consisted of 25 items classified by six types of strategies, which adapted from the vocabulary learning strategy classification based on Schmitt's Taxonomy (1997): Determination, Social (Discovery), Social (Consolidation), Memory, and Cognitive in order to make them suitable for the subjects of the study. The test instrument consisted of 100 items which adapted from "English Vocabulary Test" book by I.S.P. Nation.

2. The test instrument and the questionnaires were approved and improved by the advisors and were tested with some students. After collecting and analyzing it for its validity and reliability. There were some parts to be readjusted and rewritten.

3. The test instrument and the questionnaires were given to all respondents within one class period.

4. The 25-item questionnaires were introduced by the researcher. The respondents also told that they had to answer in terms of how well the explanations of each item describe them. The answered of the test instrument and the questionnaires were collected right after the respondents finished them.

5. After collecting the result of the test, then analyze them. And then obtaining scores of vocabulary test from the vocabulary material and the last one is computing the data.

G. Data Analysis

To analysis the data obtained, the writer will use the formula as below:

1. Calculated the students' vocabulary test score by using the formula:

$$S = \frac{n}{N} \text{ x } 100$$

Where:

S = students' score

n = number of true answer

N = number of test items[9]

2. To find out the average score of the students' vocabulary size, the writer will use the formula as bellow:

$$M = \frac{\sum x}{N}$$

Where:

M = mean

X = the Sun of Score

N = number of the students.[10]

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[9] Depdikbud, *Kurikulum Pedoman Khusus Bahasa Inggris Madrasah Tsanawiyah,* Jakarta: Direktorat Jenderal Agama Islam, 2004.

[10] Chabib Thoha, *Teknik Evaluasi Pendidikan,* Jakarta: PT. Raja Grafindo Persada, 2003, P. 94

3. To find out the influence of the correlation between vocabulary learning strategies and the students' vocabulary size, the writer used a Pearson product moment correlations. The correlation technique is an analysis technique to evaluate hypothesis concerning correlation between two variables that are examined statistically. The researcher examined the opinion by computing the data by applying the formula of the Pearson.

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{(N \sum X^2 - (\sum X)^2\}\{N \sum Y^2 - (\sum Y)^2\}}}$$

Notes:

r_{xy} = total coefficient of correlation

$\sum X$ = total value of score X

$\sum Y$ = total value of score Y

$\sum XY$ = multiplication result between score X and Y

N = number of students[11]

The result of the calculation above is connected to the following criteria:

0.800 - 1.000 : very high validity

0.600 - 0.799 : high validity

0.400 - 0.599 : fair validity

0.200 - 0.399 : poor validity

0.000 - 0.199 : very poor validity[12]

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[11]Riduwan, *Metode dan Teknik Menyusun Tesis,* Alfabeta, 2008, p. 110

4. To know the contribution of the variable X to variable Y is used the formula:

KP = r2 x 100%

Where:

KP = determinant coefficient score

r = correlation coefficient score.[13]

5. To know the value of *thitung* is used the formula:

$$\text{t}hitung = \frac{r\sqrt{n-2}}{\sqrt{n-r^2}}$$

Where:

thitung = nilai t (value t)

r = the score of coefficient correlation and

n = the number of sample.[14]

[12]G. Suharto, *Metodologi Penelitian Dalam Pendidikan Bahasa: Suatu Pengantar,* Jakarta: Departemen Pendidikan dan Kebudayaan Direktorat Jendral Pendidikan Tinggi Proyek Pengembangan Lembaga Pendidikan Tenaga Kependidikan, 1998, p. 150

[13] Anas Sudijono, *Pengantar Statistik Pendidikan,* Jakarta: PT. Grafindo Persada, 2005, P. 193

[14] Riduwan, *Metode & Teknik Menyusun Tesis,* Ibid, P. 38