

CHAPTER III

RESEARCH METHODOLOGY

This chapter consisted of research type and design, place and time of the study, population and sample, research instrument, data collected method, and technique of data analysis.

A. Research Type

The type of this research was quantitative research using non-experimental research. Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity.¹ This study gathered the data from two variables and then thought to determine if the variables are related or correlated. Correlation means the extent to which the two variables vary directly (positive correlation) or inversely (negative correlation).²

B. Research Design

The research design of this study was correlation design to understand the relationship between two variables where it is traditionally classified as relationship study or prediction study.³ Correlation approach is non-experimental research which employs data derived from preexisting variables with the purpose to assess or understand the relationship between two or more variables in a single group.⁴ It also produces indexes or a correlation coefficient that show the direction and the strength of relationship among variables, taking into account the

¹ C.R Kothari, *Research Methodology*, New Age International (P), Jaipur, 2004, p.3.

² Donald Ary, et al., *Introduction to Research in Education*, p. 27.

³ Donna M. Johnson, *Approaches to Research*, p. 51.

⁴ Donald Ary and Lucy Cheser Jacob, Chris Sorensen, and Asghar Razavieh, *Introduction to Research*, p. 349.

entire range of these variables.⁵ Therefore, the writer used correlation approach in the study to measure the strength of the relationship between students' Learning Motivation and Writing Learning strategies of the English department at IAIN Palangka Raya. The writer explored the students learning motivation based on Dornyei's theory of motivation which refers to the students' goal of learning English. The writer also explored the students' writing learning strategy based on Oxford's theory of learning strategy in the direct strategies and indirect strategies which the students' goal of learning English.

C. Place and Time of the study

A research was conducted at Palangka Raya, especially at IAIN Palangka Raya. This research took a month to collect the data.

D. Population and Sample

1. Population

According to Budiono and Koster, the population is defined as the whole of observation or object that becomes writer interesting.⁶ Therefore, the population is the whole of research subject in a region and had a relationship with the problem that a writer searches.

The population in this study is all of the students on the fifth semester of English students of English Study Program of Palangka Raya in the Academic year 2016/2017. Which is consist of about 72 students, where each class has 23-25 students. Total class and students may see on the table below:

⁵*Ibid.*, p. 350.

⁶Boediono and Wayan Koster, *Teori dan Aplikasi Statistik dan Probabilitas: Sederhana, lugas, dan Mudah Dimengerti*, Bandung: PT Remaja Rosdakarya, 2008, p.9.

Table 3.1
The population of The Research

Class	Total Student
A	24
B	25
C	23

Source data : from the Data of Academic Years 2016/2017

2. Sample

According to Ary, et al., the sample is a small group that is observed which is a portion of a population.⁷ For determining the sample, the writer used cluster random sampling. In this study, the writer used two class as sample which consist about 47 students, but about 5 students who absent in the class.

The taken of the population as the sample of the study was to decrease the opportunity of error in generalization. It based on the statement that the more the number of samples close to the population, the smaller the chance of generalization error and conversely the smaller the number of samples away from the population, the more the generalization error.⁸

E. Research Instrument

1. Instrument

To get the data accurately, it is important to use the instrument, because it is the tool to get the data on the field. In collecting the data, a questionnaire was used in this research to answer the problem of the study.

⁷ Donald Ary, et al., *Introduction to Research in Education*, p. 148.

⁸ Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D*, Bandung: Alfabeta, 2007, p. 126.

a. Questionnaire

Brown in Zoltan Dornyei, stated questionnaire is 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.⁹ The close-ended question used on this research. This type was suitable with the topic of the research which asked about learning motivation and writing learning strategies. According to Gardner, stated that motivation is “the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in the activity.” Then, to measure the learning motivation, the writer used Gardner’s questionnaire which suitable with this study.

The writer has adapted Gardner’s Attitude / Motivation Test Battery (AMTB) questionnaire of motivation.¹⁰ It was translated from English into Bahasa to make the students more confident and understand what the content is. Rating scale that was used in this study is Likert Scale. Likert scales consist of a series of statements all of which are related to a particular target (which can be, among others, an individual person, a group of people, an institution, or a concept); respondents are asked to indicate the extent to which they agree or disagree with these items by marking (e. g., circling) one of the responses ranging from 'strongly agree' to 'strongly disagree'.¹¹ For the first questionnaire, the scales ranges from

⁹ Zoltan Dornyei, “*Questionnaires in Second Language Research Construction, Administration, and Processing*” London: University of Nottingham, Lawrence Erlbaum Associates, Publishers, 2003, p.6.

¹⁰ R. C. Gardner, Attitude/Motivation Test Battery: International AMTB Research Project, Canada: 2004.

¹¹ Zoltan Dornyei, *Questionnaire in Second Language Research*, p.37.

‘Strongly Disagree’ to ‘ Strongly Agree’ and they were code as (Strongly Disagree=1, Disagree=2, Agree=3, Strongly Agree=4).¹²Total of the statements are 18 items, but, based on validity result, total of the statements became 15 items. Which has 3 un-valid item. A Higher score indicated higher motivation and lower score indicated lower motivation of the students which based on the criteria of score interpretation below.¹³

Table 3.2
Score Interpretation

Score	Interpretation
0%-20%	Very Low
20%-40%	Low
40%-60%	Moderately
60%-80%	Strong
80%-100%	Very Strong

For specific kinds of question, it was shown on the table below.

Table 3.3
Specification Question for learning motivation’s Questionnaire

NO	Item number of Questionnaire of Motivation	Kinds of Motivation
1	1,2,3,4,5.	Intrinsic Motivation
2	6,7,8,9.	Extrinsic Motivation
3	10,11.	Instrumental Motivation
4	12,13,14,15.	Integrative Motivation

Total of the statements are 18 items, but, based on validity result, total of the statements became 15 items. Which has 3 un-valid item.

The second questionnaire, the writer was adapted from Validating a Writing Strategy Questionnaire By Petric and Czarl for writing learning

¹² Zahra Vaezi, “Language Learning Motivation among Iranian Undergraduate Students,” *World Applied Sciences Journal*, vol. 5, no. 1, 2008, p.55.

¹³ Riduwan, *Metode dan Teknik*, p.88.

strategies.¹⁴ It is also was translated from English into Bahasa. The rating scale that was used in this study is Likert Scale. The scales ranges from ‘Never’ to ‘always’ and they were code as (Never=1, Sometimes=2, Often=3, Always=4).¹⁵

Table 3.4
Specification Question for Writing Learning Strategies’s Questionnaire

No	Item number of Questionnaire of Writing Learning Strategies	Kinds of Writing Strategies
1	1,2.	Memory Strategies
2	3,4,5,6.	Cognitive Strategies
3	7,8.	Compensation Strategies
4	9,10,11.	Metacognitive Strategies
5	12,13.	Affective Strategies
6	14,15.	Social Strategies

Total of statements are 22 items. But, from the validity result, it was found there are 7 questions which un-valid items. So, the total statements became 15 items.

2. Research Instrument Try Out

The tryout instrument needed to gain information about the instrument quality that consists of instrument reliability and validity. Try out was used to measure the suitable instrument for students’ learning motivation and writing learning strategy. The tryout was done to the fifth-semester students by English

¹⁴Ana Belén Cabrejas Peñuelas, “The Writing Strategies of American University Students : Focusing on Memory, Compensation, Social, and Affective Strategies”, *Estudios de lingüística inglesa aplicada (ELIA)* 12, 2012. p.109-112.

¹⁵Zahra Vaezi, “Language Learning Motivation among Iranian Undergraduate Students,” *World Applied Sciences Journal*, vol. 5, no. 1, 2008, p.55.

students' program of IAIN Palangka Raya who did not become sample in this study. The procedures of the try out as follows:

- a) The writer gave try out to the students who did not become as research sample.
- b) The writer collected the answer and gave the score to the respondents.
- c) The writer analyzed the respondents score to find out the validity and reliability by used SPSS 18 program.

3. Instrument Validity

Validity was defined as the extent to which instrument measured what it claimed to measure.¹⁶ The validity of a test is the extent to which it measures what is supposed to measure and nothing else. Every test, whether it is a short, informal classroom test or a public examination, should be valid the constructor can make it. The test must aim to provide a true measure of particular skill that it is intended to measure, to the extent that measures external knowledge and other skills at the same time, it will not be a valid test. In this study, the validity classified into content and construct.

a. Content validity

Content validity referred to the representativeness of a measurement regarding the phenomenon about which the writer want to inform.¹⁷ An instrument which formed in a test to measure achievement should have content validity.

According to Ary Donald states that "content validity is essentially and of necessity based on the judgment, and such judgment must be made separately

¹⁶ Donald Ary et.al., 2010, *Introduction to Research in Education*, p.225.

¹⁷ Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D*, Bandung: Alfabeta, 2007, p.174.

for each situation.¹⁸ The question of an instrument's validity is always specific to the particular situation and to the particular purpose for which it is being used. A test that has validity in one situation may not be valid in a different situation”.

In this study, the writer was measured the students' learning motivation score and writing learning strategy score.

Table 3.5
Validity result of learning motivation questionnaire

No	Item	Value	Critical Value	Validity
1	Item 1	703	.456	Valid
2	Item 2	811	.456	Valid
3	Item 3	565	.456	Valid
4	Item 4	743	.456	Valid
5	Item 5	503	.456	Valid
6	Item 6	545	.456	Valid
7	Item 7	385	.456	Invalid
8	Item 8	742	.456	Valid
9	Item 9	748	.456	Valid
10	Item 10	801	.456	Valid
11	Item 11	698	.456	Valid
12	Item 12	336	.456	Invalid
13	Item 13	500	.456	Valid
14	Item 14	886	.456	Valid
15	Item 15	279	.456	Invalid
16	Item 16	691	.456	Valid
17	Item 17	512	.456	Valid
18	Item 18	588	.456	Valid

Based on validity result of language learning motivation, there was found three question which un-valid. So, the total item that became 15 items.

Table 3.6
Validity result of writing learning strategies questionnaire

No	Item	Value	Critical Value	Validity
1	Item 1	459	.456	Valid
2	Item 2	358	.456	Invalid
3	Item 3	420	.456	Invalid
4	Item 4	747	.456	Valid

¹⁸ Donald Ary, at all. *Intruduction to Research in Education*, p.196

5	Item 5	842	.456	Valid
6	Item 6	660	.456	Valid
7	Item 7	803	.456	Valid
8	Item 8	698	.456	Valid
9	Item 9	419	.456	Invalid
10	Item 10	413	.456	Invalid
11	Item 11	819	.456	Valid
12	Item 12	558	.456	Valid
13	Item 13	429	.456	Invalid
14	Item 14	562	.456	Valid
15	Item 15	617	.456	Valid
16	Item 16	460	.456	Valid
17	Item 17	443	.456	Valid
18	Item 18	730	.456	Valid
19	Item 19	291	.456	Invalid
20	Item 20	646	.456	Valid
21	Item 21	599	.456	Valid
22	Item 22	309	.456	Invalid

Based on validity result of writing learning strategies, there was found seven question which un-valid. So, the total item that became 15 items.

b. Construct validity

Ary Donald states that construct validity (measurement) is the extent to which a test or other instrument measures what the researcher claims it does; the degree to which evidence and theory support the interpretation of test scores entailed by the proposed use of the test.¹⁹

To measure the validity of the instrument, the writer was used the formulation of Product Moment by Pearson as follows.²⁰

$$r^{xy} = \frac{N. (\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{\{N (\Sigma x^2) - (\Sigma x)^2\} \{N (\Sigma y^2) - (\Sigma y)^2\}}}$$

Where:

r^{xy} : The coefficient of correlation

¹⁹*Ibid.* p.638

²⁰ Riduwan, *Metode dan Teknik Menyusun Tesis*, Alfabeta, 2008, p.110.

- Σx : Total Value of Score X
 Σy : Total Value of Score Y
 Σxy : Multiplication Result between Score X and Score Y
 N : Number of students

The formula above is very important due to finding out whether or not the (Ho) Hypothesis or (Ha) Hypothesis is accepted in this research. A correlation greater than 0.8 is generally described as strong, whereas a correlation less than 0.5 is generally described as weak. These values can vary based on the type of data being examined.

After gathering the results r , the researcher interprets the result by using coefficient correlation interpretation as follows:

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 Validity²¹

To interpret the validity of the instrument, the writer was calculated to r table with significant level 5% and df (degree of freedom) = $N-2$.

4. Instrument Reliability

The reliability of measuring instrument is the degree of consistency with which it measures whether it is measuring. This quality is essential in any kind of measurement.²² It was used to prove that the instrument approximately believe is

²¹*Ibid*, p.110.

²² Donald Ary. At all. *Introduction to Research in Education*, p.236.

used as the tool of collecting the data because it is regard well. The reliable instrument is constant.

Reliability correlate with the instrument can give the same result to the object that is measured repeatedly at the same time. According to Heaton states that reliability is a necessary characteristic of any good test: for it to be valid data all, a test must first reliable as a measuring instrument. If the test is administrated to the same candidates on different occasions (with no language practice work taking place these occasions) then, to extent that it procedures differing result, it is not reliable.²³ To measure the reliability of the questionnaire, the researcher was used Coefficient Alpha. According to Ary, et al, researcher use Cronbach alpha when measures have items that are not scored simply as right or wrong, such as attitude scales or essay tests.²⁴ The formula for alpha is as follows:

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum S_i^2}{S_t^2} \right)$$

Where:

r_{11} = reliability value

k = number of items on the test

$\sum S_i^2$ = total variances of each item score

S_t = total variances

The writer did the reliability by SPSS 18. The result was reliable. The degree of Cronbach's alpha of learning motivation questionnaire was higher than r table (0,456) as follows :

²³ J.B Heaton, *Writing English Language*, (England: Longman, 1974)p.155.

²⁴ Donal Ary, et al. *Ibid.* p. 246-247

Table 3.7
Reliability Statistics of Learning
Motivation Questionnaire

Cronbach's Alpha	N of Items
.909	15

Table 3.8
Reliability Statistics of Writing
Learning Strategy Questionnaire

Cronbach's Alpha	N of Items
.906	15

F. Data Collection Procedures

Before analyzing the data, the writer was collected the data first. Because collecting data is the most important step in conducting the research, the writer was conducted a tryout and then analyzed it to get its validity and reliability. The questionnaire was used as an instrument to collect the data. To collect the objective data, this research has several steps as follows :

1. The writer gave the questionnaire to the respondents.
2. The writer collected the responses.
3. The writer calculated the responses.

G. Data Analysis Procedure

After got the data, the writer was used several techniques are conduct as follows:

1. Examined and scored on each questionnaire
2. Rated the questionnaire between 1 to 4.

3. Calculated the value of students' learning motivation and writing learning strategy.
4. After obtained the students' result of the value, the writer was comparing both of it. To known and analyzed the data, the writer was used SPSS program to make it easier. Then the writer used the distribution (r table) for $\alpha = 0,05$ (significance of 5% or 0.05 is a standard measure that is commonly used in research).²⁵
5. To measure the correlation between the variables, the writer was used the product moment formula and to interprets the correlation, the writer also consulted to r table with significant level 5% and df (degree of freedom) = $N - 2$. The writer used the 5% significant level because the field of research is language subject, not an exact subject. in the language study, it is better to use 5% significant level.
6. Conclude the correlation between students' intrinsic motivation, extrinsic motivation, instrumental motivation, integrative motivation and writing learning strategies.

²⁵Riduan, *Metode dan Teknik Menyusun Thesis*, Alfabeta, Bandung:2009, p.221.