

CHAPTER III

METHOD OF RESEARCH

A. Research Design

The type in this research is field research, and the approach used is a quantitative approach. According to Azwar (2005,p.5), stated that suggest that an approach emphasizing quantitative analysis of the numerical data (numbers) are processed with statistical methods. This research objective also to know the description of personality types, the level of the student and the liveliness of the relationship between Extrovert and Introvert students on Speaking II of English Department of *Tarbiyah and Teachers Training* Faculty of IAIN Antasari Banjarmasin Academic year 2014/2015.

B. Research Setting

The research is conducted in Antasari State Institute for Islamic Studies (IAIN Antasari Banjarmasin). This institute lies on Jalan A.Yani KM. 4,5 Banjarmasin 70235. There are seven major in Tarbiyah and Teachers Training Faculty, one of them is English Education Department. In this case, the writer focuses on students of English Department of *Tarbiyah and Teachers Training* Faculty for speaking II in academic year 2014/2015 to compare Extrovert and Introvert students on Speaking II at English Department of *Tarbiyah and Teachers Training* Faculty of IAIN Antasari Banjarmasin. Why the writer choses this place as her location of this research because speaking was taught in English

Department of *Tarbiyah and Teachers Training* Faculty of IAIN Antasari Banjarmasin.

C. Population and Sample of The Research

1. Population

Population is the collection of all individuals or items under consideration in a statistical study (Weis,1999,p.4). The population of the research is all of the students at English Department of *Tarbiyah and Teachers Training* Faculty of IAIN Antasari Banjarmasin Academic Year 2014/2015 on fourth semester as the population. The number of them are consist 167 from all of the students at English Department. To know more about them, it can bee seen in the following table:

No	Class	Total
1	A	31
2	B	35
3	C	34
4	D	33
5	E	26
Total		159

Source: English Department Document of fourth semester students academic year 2014/2015

2. Sample

Sample is that part of the population from which information is collected (Weis, 1999:p.4). (Arikunto, 2002,p.112) said that if the population is less than 100, it is better for taking all the population. If the population is large we can take 10-15% or 20-25% or more. Based on the population above, the writer uses proportional random sampling method that will be taken from 25% of population.

The following is the description a total number of the subject:

Class	Number of students	25% of Number of Students	Total
A	31	12	62
B	35	14	
C	34	13	
D	33	13	
E	26	10	

Source : Sample of students on fourth semester

D. Data and Source of Data

1. Data

There are two kinds of data. They are primary and secondary data.

1) Primary data

- 1) Data about extrovert students speaking ability
- 2) Data about introvert students speaking ability

2) The Secondary Data

To Complete the primary data, the researcher also collect the secondary data that relates to the research location is about the baground of location for this research consist of general description about the brief history of IAIN Antasari Banjarmasin.

2. Source of Data

Data which is collected source from:

- a. Respondents : 25% of students on speaking II of English Department
- b. Informants : Lecturers, staff administrative of English department of IAIN Antasari Banjarmasin.
- c. Documents : All written source which needed in this research

E. Data Collecting Procedure

1. Observation

Observation means as systematically records faced the sign that appear in research object (Margono,2004,p.158). In this paper, the writer observed the process teaching and learning speaking in classroom. The writer wants to find out the ability of the students in speaking, and all the thing that happened in the teaching learning process, which can support result of the data such as the condition of class.

2. Questionnaire

The writer gives questionnaires for some students as sample of the research. This technique is used to collect the data about the students extrovert and introvert on Speaking II. There are 16 questions that involve in this questionnaire which contain questions that the answer can classify the students whether they are Introvert or Extrovert.

3. Interview

In this technique, the writer makes communication and interview with some students at English Department on fourth semester. Interview is a purposeful conversation, usually between two people (but sometimes involving more) that is directed by one order to get information. After the writer shared questionnaire and get the data about students Extrovert and Introvert. In this research, the writer interviewed some students especially respondents to explore some information in completing the data after giving them a questionnaire. The writer uses proportional random sampling method that will be taken from 25% of population or 15 students out of 60 students. (Arikunto,2002, p.112) said that if the population is less than 100, it is better for taking all the population. If the population is large we can take 10-15% or 20-25% or more.

4. Documentary

The writer looks for written reports on documents that related with the writer's research, especially about general description of researched location and score middle test and final from test speaking of students on fourth semester. This

technique is aimed at looking for all written report or documents that perhaps keep any detailed records of primary data and secondary data.

5. Test

The writer do test to know speaking ability of extrovert and introvert students. The test conducted orally which the theme that given to them is “hobby”. The aspects that will be taken from the test are pronunciation, grammar, vocabulary ,fluency and comprehension. The test can be seen in the appendix.

F. Data Analysis Procedure

All the collected and processed data are then analyzed quantitative approach. Data analysis in a process by which data simplified into a form can be read and interpreted easily.

After all the collected data have been processed, the writer analyses them and makes conclusion by using the “t” or “t” test formula. Sudijono (1987, p.279).

In this research, the writer uses:

1. Alternative Hypothesis

There is significant difference students speaking ability between Extrovert and Introvert students on Speaking II of English Department of *Tarbiyah and Teachers Training* Faculty of IAIN Antasari Academic Year 2014/2015.

2. Zero Hypothesis

There is no significant difference students speaking ability between Extrovert and Introvert students on Speaking II of English Department of *Tarbiyah and Teachers Training* Faculty of IAIN Antasari Academic Year 2014/2015.

There are 7 steps to process the data until the writer gets the answer, including:

- 1) After share questionnaire and each sample has gets final speaking score, the writer counts the mean of every students by using the following formula:

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

The writer interprets speaking ability's score of the students will be categorized into five levels as follow by (Harris,1969, p.134), as follows:

80 -100 = Excellent

70 - <80 = Good

60 - <70 = Fair

50 - <60 = Low

0 - <50 = Very low

- 2) The writer count standard deviation of every students by using formula:

$$SD = \sqrt{\frac{\sum x^2}{(N-1)}}$$

- 3) The writer counts standard error of mean from every students by using formula:

$$SE_M = \frac{SD}{\sqrt{N_1 - 1}}$$

- 4) The writer counts standard error from both sample by using formula:

$$SE_{M_1 - M_2} = \sqrt{SE_{M_1}^2 + SE_{M_2}^2}$$

- 5) The writer counts t-test by using formula:

$$t \text{ test} = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

- 6) Giving interpretation for “t” with consulting **t table**.

- 1) Looking for degree of Freedom

$$df/db = (N_1 + N_2 - 2)$$

Explanation

df/db : Degree of Freedom

N₁ : Number of subject of the students who are extrovert speaking II

N₂ : Number of subject of the students who are introvert speaking II

2 : Value of degree of freedom for variables.

- 2) Consulting score of “db/df” with ‘t’ table

t table : Value of critic “t”

In significant degrees t table 5%

In significant degrees t table 1%

7) Normality test

Normality tests are used to find out the average distribution of the data.

Normality test data obtained in research use Chi-Square test (X^2). The formula used to calculate (X^2):

$$X^2 = \sum \frac{(f_0 - f_i)}{f_i}$$

Explanation :

X^2 = Value of Chi-Square

f_0 = The frequency of the observed

f_i = Expected Frequency

If $F_{\text{count}} > F_{\text{table}}$ the data is not normal and if $F_{\text{count}} \leq F_{\text{table}}$ the data is normal.

8) Homogen Test

The data normal, next the writer do homogen test. the writer used the largest variance test compared to the smallest variance using tables F. The steps are:

- 1) Calculate the variance of the largest and smallest variance

$$F_{\text{count}} = \frac{\text{largest variance}}{\text{smallest variance}}$$

- 2) Compares the value of the F_{count} with value of F_{table}

db numerator = $n - 1$ (for the largest variance)

db denominator = $n - 1$ (for the smallest variance)

The significance og degree (α) = 5 %

3) Criteria test

As for the criteria in the test is

If $F_{\text{count}} > F_{\text{table}}$ it is not homogen

If $F_{\text{count}} \leq F_{\text{table}}$ it is homogenous

9) Test the Equality of two average (t-test)

Comparison test of two sample t-test that is used to compare (distinguish)

whether both data (variable) the same or different. The following steps as:

1) Count the average value of (x) and variance (s_2) each sample:

$$\bar{x} = \frac{\sum f_i x_i}{\sum f_i} \text{ and } s^2 = \frac{\sum f_i (x_i - \bar{x})^2}{n - 1}$$

2) To calculate the price of the t with the formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Description:

n_1 = the number of first data (extrovert student)

n_2 = the number of second data (introvert)

\bar{x}_1 = average value of the first data count

\bar{x}_2 = average value of count data both

s_1^2 = first data variansi

s_2^2 = second data variansi

10) The writer makes a conclusion .

1) If $t_{\text{count}} < t_{\text{table}} = H_0$ (Zero Hypotheses) will be rejected and

(Alternative Hypothesis) will be accepted.

2) If $t_{\text{count}} < t_{\text{table}}$ = H_0 (Zero Hypotheses) will be accepted and
(Alternative Hypothesis) will be rejected.

Explanation

M = Average number of mean
 $\sum x$ = Total score
N = Total of sample
SD = Standard of Derivation
 SE_M = Standard Error of Mean
 $SE_{M_1 - M_2}$ = Standard Error of both samples
T = students "t" test score