

CHAPTER III

RESEARCH METHOD

A. Research Design

According to Azwar (2001, p.5), an approach emphasizing quantitative analysis of the numerical data (numbers) is processed with statistical methods. This study is to obtain if there is or there is no significant difference of the students' listening achievement in listening to American and British English. Burns and Grove (2005, p.23) said that quantitative research is a formal, objective, systematic process in which numerical data are used to obtain information about the world.

As stated by Subagyo (2004, p.5), the analysis of a quantitative approach research emphasizes numerical data which are processed by statistical method. Basically, quantitative approach is used for an inferensial research (hypothesis proving purpose).

According to Oxford English Dictionary, the meaning of comparative is connected with studying things to find out how similar or how different they are (Hornby, 1995, p.82). The word compare means to consider people or things in order to find ways in which they have similar standard or size that can be compared with somebody or something (Hornby, 1995, p.134)

B. Setting of the Research

For the location, the writer carries out the research at UIN Antasari Banjarmasin by giving a written tests to get the data about the students' achievement in American and British English. Then the data that gotten are calculated statistically.

C. Population and Sample of the Research

1. Population

Population of this reseach is the fourth semester students of English Department at UIN Antasari Banjarmasin academic year 2017/2018. The total number of the students are 136 as can be seen in the following table:

Table 3.1 Population of the Research

Academic year	Class	Students
2017/2018	A	24
	B	27
	C	34
	D	27
	E	24
Total		136

2. Sample

Based on the population above, the writer uses random sampling method as procedure in quantitative research for selecting the samples. According to Creswell (2009, p.148), each individuals in the population has an equal probability of being

selected; it means each individuals has the same chance of being selected into the sample of the populataion and as certain the sample will be the representative of the population.

According to Arikunto (1996), when the population is more than 100, taking samples between 10-15% and 20-25% or more than 25% is good.

In line with the explanation above, the writer decides to take 30% of the total student in the fourth semester of English department. There are 5 classes that consist of 136 students, so the writer takes 40 students from class A, B, C, D and E. The details can be seen in the following table:

Table 3.2 Sample of the Research

Academic year	Class	Students
2017/2018	A	7
	B	8
	C	10
	D	8
	E	7
Total		40

D. Data, Source of Data and Technique Of Data Collecting

1. Data

The data that are required are data about the fourth semester students' achievement in listening to both American English and British English.

2. Source of Data

The source of data in this research is:

- a. Respondents : Students of the fourth semester of English Department of Tarbiyah and Teachers Training Faculty at UIN Antasari Banjarmasin.

3. Technique of Data Collecting

To collect the data, the writer uses the technique of data collection as follows:

- a. Test

Test is a procedure used to collect data on subjects' ability or knowledge of certain discipline (Seliger and Shohamy, 1998, p.176). This technique is used to get the data about the achievement in listening to American and British English. The duration of the audio is 2 minutes 32 seconds for American English audio and 2 minutes 33 seconds for British English audio. Total question of the test is 20 questions for American English and 20 questions for British English. The questions are divided into three kinds of question; multiple choice (8 questions), filling in the blank (9 questions) and essay (3 questions). For the scoring, every right answer gets 5 points and every wrong answer gets 0 points. The details can be seen in the following table:

Table 3.3 Amount of the Question and Score of Each Item

No	Test	Amount	Score of each items	
			Right answer	Wrong answer
1	American English question	20	5	0
2	British English question	20	5	0

E. Technique of Data Processing and Data Analysis

1. Data Processing

There are several techniques used, namely:

a. Editing

This technique is carried out to examine all the collected data to make certain whether the data have already completed or not.

b. Coding

This technique is carried out to classify the data obtained from respondents into certain category.

c. Tabulating

The writer tabulates all the collected data based on frequency to compute each certain answer by using the formula as follows:

$$P = \frac{F}{N} \times 100\%$$

P : Percentage

F : Frequency of answer for each item

N : Number of respondent

b. Data Interpretation

The writer interprets the students' achievement in listening to both American and British English by using the measurement of students' achievement suggested by Harris (1969, p.134), as follows:

80 – 100 = Excellent

70 – 79 = Good

60 – 69 = Fair

50 – 59 = Low

0 – 49 = Very Low

2. Data Analysis

After all of the data have been processed, the writer analyses them by using “t-test”. There are some steps to process the data until the result will be gotten, including:

a. Looking for mean variable I. The formula is as follows:

$$M_1 = \frac{\sum x}{N_1}$$

M_1 = Mean of students' achievement in American English test

$\sum x$ = Students' accumulative score in American English test

N_1 = Number of subjects who are tested in American English test

- b. Looking for mean variable II. The formula is as follows:

$$M_2 = \frac{\sum y}{N_2}$$

M_2 = Mean of students' achievement in British English test

$\sum y$ = Students' accumulative score in British English test

N_2 = Number of subjects who are tested in British English test

- c. Looking for standard deviation for variable I. The formula is as follows:

$$SD_1 = \sqrt{\frac{\sum x^2}{N_1}}$$

SD_1 = Standard deviation the students in American English test

$\sum x^2$ = Accumulative quadrant of deviation the students in American
English test

N_1 = Number of subjects who are tested in American English test

- d. Looking for standard deviation for variable II. The formula is as follows:

$$SD_2 = \sqrt{\frac{\sum y^2}{N_2}}$$

SD_2 = Standard deviation the students in British English test

$\sum y^2$ = Accumulative quadrant of deviation the students in British English
test

N_2 = Number of subjects who are tested in British English test

- e. Looking for standard error of mean variable I. The formula is as follows:

$$SE_{M_1} = \frac{SD_1}{\sqrt{N_1 - 1}}$$

SE_{M_1} = Standard errors of mean the students in American English test

1 = Value of constant

- f. Looking for standard error of mean variable II. The formula is as follows:

$$SE_{M_2} = \frac{SD_2}{\sqrt{N_2 - 1}}$$

SE_{M_2} = Standard error of mean the students in British English test

1 = Value of constant

- g. Looking for standard error for comparative mean variable I and mean variable II. The formula is as follows:

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

$SE_{M_1-M_2}$ = Standard error for comparative mean of students in American English and British English test

$SE_{M_1}^2$ = Quadrant of standard error of mean the students in American English test

$SE_{M_2}^2$ = Quadrant of standard error of mean the students in British English test

- h. Looking for t by using the formula as follows:

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

t = Value of t observation

i. Giving interpretation for “ t ” by consulting it to t_{table} :

- Looking for degree of freedom

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

df/db : Degree of freedom

N_1 = Number of subjects who are tested in American English test

N_2 = Number of subjects who are tested in British English test

2 = Value of degree of freedom for two variables

- Consulting score of “df/db” with “ t_{table} ”

t_{table} : Value of critic “t”

➤ In significant degrees t_{table} 5%

➤ In signifiants degrees t_{table} 1%

- Making hypothesis interpretation:

➤ H_0 (Zero Hypothesis) : There is no significant difference.

➤ H_a (Alternative Hypothesis) : There is significant difference.

j. Making a conclusion

- If $t_{count} > t_{table}$, H_a (Alternative Hypothesis) is accepted, H_0 (Zero Hypothesis) is not accepted.
- If $t_{count} < t_{table}$, H_0 (Zero Hypothesis) is accepted, H_a (Alternative Hypothesis) is not accepted.

F. Research Procedure

Some steps that are passed in this research are as follow:

1. Preliminary Step
 - a. To hold a prior observation in this research object.
 - b. To discuss the result of previous observation with the researcher's academic advisor.
 - c. To make a research design proposal to be submitted to the Tarbiyah and Teachers Training Faculty to have approval.
2. Prevatory Step
 - a. To hold a seminar on the research design proposal.
 - b. To ask Dean of Tarbiyah and Teachers Training Faculty for written mandate to conduct the research.
 - c. To make the instruments of data collecting.
3. Research Step
 - a. To meet all respondents who are needed to obtain the data.
 - b. To collect all the needed data from the sources by using some techniques of data collecting.
 - c. To process the data in the procedural way, then analyze them properly.
4. Organizing Step
 - a. To arrange and write the collected data in the first draft.
 - b. To consult with the writer's advisor and his/her assistants to get comments and contributions.

c. To be examined in the open forum