CHAPTER III
RESEARCH METHOD

In this chapter, it is described; research type, research design, place of the study, population and sample of the study, research instrument, data collection procedures, and data analysis procedures.

A. Research Type

Considering the purposes of the research and the nature of the problems, the type of research is quantitative research. Quantitative research uses objective measurement to gather numeric data that are used to answer questions or test predetermined hypotheses.\textsuperscript{55} It may be classified as either experimental or non-experimental. Experimental research involves a study of the effect of the systematic manipulation of one variable(s) on another variable.\textsuperscript{56} The manipulated variable is called the experimental treatment or the independent variable. The observed and measured variable is called the dependent variable. In non-experimental quantitative research, the writer identifies variables and may look for relationships among them but does not manipulate the variables.\textsuperscript{57} Major forms of non-experimental research are relationship studies including ex post facto research, correlation research and survey research (also called descriptive research). In this study the writer uses non-experimental quantitative research. In this case, the study is done descriptive by collecting the data through the students answer sheet. The writer uses content analysis as a design in this study.

\textsuperscript{56}Ibid., p. 26.
\textsuperscript{57}Ibid., p. 26.
B. Research Design

The design of this study is content analysis research. In this study the writer focuses on quantitative approach by using deductive content analysis. The aim of using this approach is to replace a written data become a numeric data. In addition, it is to test a previous theory in different situation or to compare categories at different time periods. Meanwhile, content analysis is used as a research method. According to Nueman in Prasetyo and Jannah “content analysis is a technique for gathering and analyzing the content of text.” In addition, Krippendorff states content analysis is a research technique to make inferences the replicable and validity of data by paying attention to the context.

According to Ary, content analysis is widely used in education. The following are some of the purposes of content analysis in educational research:

1. To identify bias, prejudice, or propaganda in textbooks. For example, a researcher might analyze high school history texts in a particular school district to determine how often women are mentioned and how much discussion is given in each mention.

2. To analyze types of errors in students’ writings. For example, you could look at students’ written work to classify spelling or grammatical errors and their nature and frequency.

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60Donald Ary, Lucy Cheser Jacobs, Chris Sorenson, Asghar Razavieh, Research in Education 8th ed, p. 457.
3. *To describe prevailing practices.* For example, you could identify the entrance requirements of Big Ten universities by analyzing their bulletins.

4. *To discover the level of difficulty of material in textbooks or other publications.* For example, you could ask, “What is the vocabulary level of the fourth-grade social studies textbooks in this district?”

5. *To discover the relative importance of, or interest in, certain topics.* For example, you might analyze popular educational research textbooks to see the coverage given to qualitative research and changes in that coverage over time.

The study here is a content analysis research. Content analysis focuses on the characteristics of materials and asks “What meaning is reflected in these?” Content or document analysis is a research method applied to written or visual materials for the purpose of identifying specified characteristics of the material. The materials analyzed can be textbooks, newspapers, web pages, speeches, television programs, advertisements, musical compositions, or any of a host of other types of documents. To get the empirical data for this study, the writer administered a question test. The test is given to the TBI students at STAIN Palangka Raya on Academic Year 2011/2012. They are supposed to do the test to show the advancement in grammar.

Content analyses may be done in an emergent design framework, or they may be done in a quantitative research framework with variables that are specified a priori and numbers that are generated to enable the researcher to draw conclusions about these specified variables.
The preceding study illustrates the steps involved in a content analysis.\textsuperscript{61}

1. \textit{Specifying the phenomenon to be investigated} (such as gender role stereotyping).

2. \textit{Selecting the media from which the observations are to be made} (such as the Caldecott Medal books for specified time periods).

3. \textit{Formulating exhaustive and mutually exclusive coding categories} so that the verbal or symbolic content can be counted (such as the categories in which gender role stereotyping could occur).

4. \textit{Deciding on the sampling plan to be used} in order to obtain a representative sample of the documents (such as the sample consisting of all the Caldecott winners for two 2-year periods).

5. \textit{Training the coders} so that they can consistently apply the coding scheme that has been developed and thus contribute to the reliability of the content analysis. Some coding is not so straightforward but may require inferences about whether a minority group, for example, is being portrayed positively or negatively. Several coders should be able to code the documents using the scheme and obtain consistent results. If the interpreter reliability is satisfactory, you can proceed to the next step. If it is less than satisfactory, the coders may be useful in revising the category definitions to make them clearer and more complete.

6. \textit{Analyzing the data}, this may involve just the frequencies and percentages.

\textsuperscript{61}\textit{Ibid.}, p. 458.
C. Place and Time of the Study

The place of the study is English Department of STAIN Palangka Raya, G. Obos IX street Complex Islamic Center Palangka Raya Kalimantan Tengah 73111. This study conducted in Academic Year 2011/2012. In this study the writer needed two month from 27 August – 27 October 2014 to collect the data accurately and briefly.

D. Population of the Study

Ary stated that population is defined as all members of any well-defined class of people, events or objects.\textsuperscript{62} The population in the present study is TBI students of STAIN Palangka Raya Academic Year 2011/2012. There are 80 students that divided in three classes. In this study, the writer used whole of population, because students at Academic Year 2011/2012 less than 100 students. Arikunto stated if the subject of the study is less than one hundred it is better to take all of the subjects. All of the populations become the sample or it is called population of the study.\textsuperscript{63} The usual goal of such samples is to represent the population. The writer chooses nine semester students as the sample because in this semester English Morphology subject has been being taught. Then, the students have enough learnt about writing.

E. Source of The Data

The sources of the data in this study from the students’ answer sheets. The data was analyzed in this present study are the process of derivational affixes

\textsuperscript{62}Ibid., p. 148.
(prefix and/orsuffix) in completing the essay faced by TBI students at STAIN Palangka Raya on Academic Year 2011/2012.

F. Research Instrument

1. Test

A test is asset of stimuli presented to an individual in order to elicit response on the basis of which a numerical score can be assigned. The utility of these scores as indicators of the construct of the interest is in large part a function of the objectivity, validity and reliability of the tests. Some test, such as multiple-choice and true-false tests are described as objective because the scoring is done by comparing students’ answers with the scoring key, and scorers need make no decisions.

The main data of this study is the students’ works which shown their problems in derivational chance processes in essay. The test should also enable the teacher to ascertain which parts of the language program have been difficulties by the class. Related to the study, the test used to collect the data is in the form of the essay test. The test was focused on analysis of derivational affixes (prefix and/or suffix) in essay. The essay that was given based on syllabi that used at TBI STAIN of Palangka Raya.

2. Instrument Validity and Reliability

a. Validity

Validity refers to the appropriateness of the interpretation made from test scores and other evaluation results, with regard of a

\[\text{prefix and/or suffix}\]
particular use. Validity is always concerned with the specific use to be made of the result and with the truthfulness of our proposed interpretations.\(^6\)

The validity of a test is the extent to which it measures what is supposed to measure and nothing else.\(^7\) An instrument is considered being a good one if it meets some requirement. One of them is validity. Every test, whether it is a short, informal classroom test or a public examination, should be a valid the constructor can make it. The test must aim to provide a true measure of a particular skill that it is intended to measure, to the extent that is measures external knowledge and other skills at the same time, it will not be a valid test. To make instrument valid in conducting test the writer uses some of the kinds of validity, they are:

**a) Face validity**

According Heaton, the test or instrument has face validity if a test items looks right to other testers.\(^8\) The type of the test items used in this study can be suitable to other at the same level of sixth semester students faced by TBI at STAIN of Palangka Raya. The face validity of the test as follows:

1) Type of test is completing descriptive essay.

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\(^7\)J.B.Heaton, *Writing English Language Test*, p.153.

\(^8\)Ibid., p. 153.
2) The kinds of test consist of derivational change processes.

3) Language that used in source language is English.

4) Language that used in target language is Indonesian.

b) **Content validity**

The procedure involves writing test specification that define a domain of instructionally relevant tasks and then constructing or selecting test items that provide a representative and relevant measure of the tasks. Content validation is also important in selecting published achievement tests, here, crucial question is how well the test measures the content and objective of the local instructional program.\(^{69}\)

Content validity refers to whether or not the content of the manifest variables (e.g. items of a test or questions of a questionnaire) is right to measure the latent concept (self-esteem, achievement, attitudes) that we are trying to measure.\(^{70}\)

If a test actually samples the subject matter about which concluding are to be drawn, if it requires the test-taker to perform the behavior that is being measured, it can claim content validity. In the present study, the writer prepares for descriptive essay that can be used by the students. The writer asked the students to complete the descriptive essay by using

\(^{69}\)Ibid, p. 83.

the words given of the certain topic. Then, the students change the word by using affixes (prefix and/or affix) to show the process of derivational. The test item in this research is to know the students’ problem in derivational chance processes in completing descriptive essay faced by Educational English Program at State Islamic College of Palangka Raya.

c) **Construct Validity**

   Construct validity is a slightly more complex issue relating to the internal structure of an instrument and the concept it is measuring.\(^1\) Construct validity introduce the question of whether or not a test was a worthy construct of the ability or trait being measured.\(^2\) So, in making the test the writer tries to match each of the items test with the syllabi that is used by lecturers of TBI at STAIN of Palangka Raya, especially syllabi of English Morphology and English Writing subject. The purpose is to make the test is appropriate with the lesson that the students accepted in the moment when the research is done.

b. **Reliability**

   Reliability is the extent to which the test measures accurately and consistently.\(^3\) Reliability of measuring instrument is the degree of consistency with which it measures whatever it is measuring.

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\(^1\)Ibid, p. 68.
\(^3\)Daniel Muihs, *Doing Quantitative Research in Education*, p. 201.
Related to instrument reliability, the writer argues if this kind of test is reliable to be used when we want to measure the problems in completing essay based on derivational process, because the instrument is constructed based on the measurement criteria to measure the problems. Because of that, this kind of test is reliable to be used in the further study.

3. Documentation

This technique used to support the data. Documentation is applied to get the needed information at, such as the number of students, classes, and the students’ name list. All those data is collected from the documents available at STAIN Palangka Raya.

G. Data Collecting Procedures

In the study, the writer used some procedures to collect the data. The procedures consist of some steps as follow:

1. Choose the place of the study.
2. Ask permission to carry out this study.
3. create the research instrument
4. The writer gives the students a test.
5. The writer asks the students to complete an essay based on the topic given.
6. The writer checks the students answer and gives the score.
7. Analyzing the data.
H. Data Analysis Procedures

Content analysis is used to analyze the data of the research finding. According to Ary, there are six steps to illustrate the steps involved in a content analysis. They are:

1. Specifying the phenomenon to be investigated.

   This step is used to specify the phenomenon being investigated of the study. They are the problems of the students in derivational change processes on essay.

2. Selecting the media from which the observations are to be made.

   After specifying the phenomenon, the next step is selecting the media from which the observations are to be made. The media being used in this study is test.

3. Formulating exhaustive and mutually exclusive coding categories.

   In this step, the problems of the students are separated to be some categories based on the indicator of test. They are derivational affixes (prefix and/or suffix).

4. Deciding on the sampling plan to be used.

   The samplings to be plan in this study consists of two, derivational prefix and/or suffix. For example, verb derived from noun like in deforest (de-forest), the bound morpheme de- that precede the root (forest) are called prefix. Noun derived from adjective like equality

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74Donald Ary, Lucy Cheser Jacobs, Chris Sorenson, Asghar Razavieh, Research in Education, p. 458.
(equal –*ity), the bound morpheme –*ity that follow the root (equal) are called suffix.

5. Training the coders.

The instrument test is tried out to the students (coders) for seeking the frequencies and percentage of the students in completing essay on derivational process. In giving the score, the writer used formula:

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\text{Scores} = \frac{B}{N} \times 100
\]

Where:

- \(B\) = Frequency of the correct answer
- \(N\) = Total of items

To find out the percentage, the writer uses the formula of Sudijono:75

\[
\text{Scoring} = P = \frac{f}{N} \times 100\%
\]

Where:

- \(P\) = percentage of data
- \(F\) = frequency of answer
- \(N\) = number of cases (Number of students)

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