

## **CHAPTER III**

### **RESEARCH METHOD**

This chapter discusses the research design and the design strategies underpinning this research study. In addition, the chapter discusses the research design and approach which used in the study including data collecting procedure, instruments, data collection, data analysis while explaining the stages and processes involved in the study, and method for verification the research findings.

#### **A. Research Design and Approach**

The main purpose of the research design is to help to avoid the situation in which the evidence does not address the initial research questions.<sup>1</sup> This suggested a research design focuses on the methods with data were collected and analyzed to investigate a research question in the most logical manner.

According to Donald Ary, this study is qualitative research since this research seek to understand a phenomenon by focusing on analyzing the textbook.<sup>2</sup> The goal is a depth understanding rather than a numeric data analysis. Although the analysis process of readability use a mathematical pattern conducted by Rudolph Flesch, it supports the main data from the depth judgment of students who have been learnt the textbook. In short, the writer want to know and measure the readability of textbook by studying this document.

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<sup>1</sup> Yin, *Case Study Research: Design and Methods*, 3<sup>rd</sup> Edition, New Delhi: SAGE Publications, 2003, p.20-21.

<sup>2</sup> Ary, Donald. *Introduction to Reseachr in Education*. Eight Education. P.29

According to Donald Ary, there are many different types of qualitative research:<sup>3</sup> basic interpretative studies, case studies, document or content analysis studies, ethnographic study, grounded theory, historical research, narrative inquiry and phenomenological studies. In this study, the writer used content analysis design. This study need will analyse the written materials. The document is reading texts. It is refers to Ary stated that,

*“Content or document analysis is a research method applied to written or visual materials for the purpose of identifying specified characteristic of the material. The materials analyzed can be textbooks, news paper, web pages, speeches, television programs, advertisement, musical composition, or any of a host of other types of documents. Content analysis is widely used in education.”*<sup>4</sup>

The writer uses this research design because the writer will analyse the readability of the textbook. Thus, based on the problem of study, the researcher also comprehend what the meaning can be learned from the result of the study. Moreover, the textbook itself have stated that it need evaluation to improve the material comprehension quality most up-to-date, the appropriate content to the students' dynamic context and education changes.

The explanation of analysis process covered in descriptive approach. Because of that, the result of Reading Ease Formula will enrich the explanation of readability. From the statements above, it can be concluded that the study is categorized as descriptive content analysis since the study describes the readability of the textbook published by the Ministry of Education and Culture of

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<sup>3</sup> Ibid., P. 29

<sup>4</sup> Ibid., P. 457

Indonesia. It means that what will be described in this the study is the condition that exists without giving any treatment.

## **B. Research Subject**

Since the objective of the study tried to know the readability of textbook, the first subject is English textbook entitled *BAHASA INGGRIS SMA/MA/MAK FOR GRADE XI SEMESTER 1* published by the Ministry of Education and Culture of Indonesia. The second subject are the students in the senior high school at eleventh grade who used the textbook to explore what students think about the reading texts. The second subject is needed to support readability score while it is calculated by readability formula. The facts inside what happen in readability score only known by interviewing or asking the subject used the textbook. The writer believes those data has a realitionsip that support each other.

In this study, the writer focused on the reading skill that is broadened to five units of reading texts in this English textbook. The reading text from the first until the fifth unit are: unit 1 of the reading text is about *The Enchanted Fish*, unit 2 is *Bullying: A cancer that must be eradicated*, unit 3 is *Presiden Soekarno of Indonesia*, unit 4 is *Vanity and Pride*, and unit 5 is about *Letter to God*. Then the writer focused to asked the students by giving some open ended questionnaire. The questionnaire are given to 30 eleventh grade students of SMKN 2 Palangka Raya as the respondents.

## **C. Time and Place of the Research**

This research did at SMK Negeri 2 Palangkaraya. The writer planned the research for two months from September 3, 2015 until November 3, 2015. But,

actually the writer could finished this research only for a month from September 3, 2015 to October 3, 2015.

#### **D. Data Collecting Procedures**

The way to collect the data in this study is by using documentation. There are two data got from this research those are readability score and students' perception. The first data is gotten from analyzing the reading texts that available on English textbook entitled *BAHASA INGGRIS SMA/MA/MAK FOR GRADE XI SEMESTER 1*, and the procedure to collect the data of readability score as follows:

1. Determine the English textbook for Senior High School
2. Identify the texts on the *BAHASA INGGRIS SMA/MA/MAK FOR GRADE XI SEMESTER 11* published by the Ministry of Education and Culture of Indonesia.
3. Read the texts of *BAHASA INGGRIS SMA/MA/MAK FOR GRADE XI SEMESTER 11* published by the Ministry of Education and Culture of Indonesia.
4. Count the number of sentences, words, and syllables of each text.

Then second data, the students' perception, collected as follows:

1. Determine the respondents used the textbook
2. Grouping the respondents into a class and Explain what they have to do with questionnaire
3. Giving the questionnaire to answer
4. Analyzing the students' sheet questionnaire into a descriptive data

## E. Research Instrument

The instrument of the research is the equipment that is used by the writer to collect the data, in which is important to get the accurate data.<sup>5</sup> It means that instrument is very important to arrange the data.

According to Schuldz in Ainiyah as mentioned in chapter II page 25 that there are three ways to measure the readability of reading materials: instructors' judgment, comprehension testing by cloze procedure, and statistical readability formula. In this case, the writer takes only two ways, readability formula and judgment, as the way to know the readability score and students' perception. The readability formula used to predict the readability of textbook by calculating the reading text. The result is readability score. While questionnaire is used to measure the readability score by investigate the book user. The investigation do by some questionnaire arranged to open ended question form which allow the respondents to write freely what is happen along they learnt the textbook. The writer have an assumption that these instruments showed different result. But, he believes they have a relationship and will support each other.

There are two data collected In this study, the writer used two instruments are Flesch Reading Ease Formula and Open-Ended Questionnaire. First, Flesch Reading Ease Formula used to analyze the readability level English textbook entitled *BAHASA INGGRIS SMA/MA/MAK FOR GRADE XI SEMESTER 11* published by the Ministry of Education and Culture of Indonesia. The result of

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<sup>5</sup> Suharsimi Arikunto, *Prosedur Penelitian.*, Yogyakarta: Rineka Cipta, 2006., p.158

formula calculation will be answered what is the level of reading texts in the textbook.

Second, the writer employs some questionnaire to the some students who have learned the textbook of entitled *BAHASA INGGRIS SMA/MA/MAK FOR GRADE XI SEMESTER 11* published by the Ministry of Education and Culture of Indonesia. The questionnaires measure what eleventh grade students opinion about textbook of *Bahasa Inggris SMA/MA/MAK” for Grade XI Semester 1*. The writer used open-ended questions to know the simple reason of that the writer did not know the range of possible answers.<sup>6</sup> The result of this questionnaire perhaps can support the result of analyzing Flesch Reading Ease Formula analysis. The writer hopes this analysis give a direction for the teachers and publishers to measure reading texts based on the readability

#### **F. Population and sample**

Broadly speaking, the *sample* is the group of people whom researchers actually examine and the *population* is the group of people whom the survey is about.<sup>7</sup> This study took a random sampling in order to minimize the effects of any extraneous or subjective variables that might affect the outcome of the study. Zoltan illustrated that in the survey research literature a range of between 1%-10% of the population is usually mentioned as the 'magic sampling fraction,' depending on how careful the selection has been (*i.e.* the more scientific the sampling procedures applied, the smaller the sample size can be, which is why opinion polls

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<sup>6</sup> Dornyei, Zoltan. 2003. *Questionnaires in Second Language Research: Construction, Administration and Processing*. Lawrence Erlbaum Associates. Mahwah, New Jersey. P.47

<sup>7</sup> Ibid P.74

can produce accurate predictions from samples as small as 0.1% of the population)<sup>8</sup>

In this study, the respondents are the eleventh grade students of Senior High School. The writer took the respondents from the eleventh grade students of SMKN-2 Palangkaraya who have learnt this textbook. The population of eleventh grade students of SMKN-2 Palangkaraya has grouped as the table below:

**Table 3.4 The Number of Eleventh Grade Students of SMKN-2 Palangka Raya**

NO.	CLASS	NUMBER OF STUDENTS
1.	XI SAR (PEMASARAN)	59 students
2.	XI AKT (AKUTANSI)	97 students
3.	XI APK (ADMINISTRASI PERKANTORAN)	102 students
TOTAL		258 students

According to Zoltan, the writer take random sampling between 1-10% of the number of the students So, the writer set 10 students each class, 10 for APK, 10 for AKT, 10 for SAR class. Total respondents are 30 students. It is very much 11% of total respondents. The writer assumed that 11% is close enough to 10%. It is only 1% higher than 10% as the minimum limit to assess accurate predictions.

#### **G. Data Analysis Procedures**

Reffe, Lacy and Fico clarify about the content analysis, like most research method; content analysis is comparable to detective word. Content analyses

examine evidence to solve problems and answer questions.<sup>9</sup> From the statement, the data analysis is an activity to search and analyze the problems to found the relevant evidence.

In this study, the writer uses Flesch readability formula (Reading Ease Formula) because this formula is the easiest one to measure the readability of reading texts. To make the analyzing easier. The writer conduct the ways to analyze the data as follow:

1. Analyze the sentence of full units of speech marked by a period, colon, semicolon, dash, question mark, or exclamation point as one sentence.
2. Analyze each word in the up to 100. Its process before count, than determine as one word for numbers, symbols, contractions, hyphenated words, abbreviations, figures, and their combination that are surrounded by one space.
3. Analyze the syllables as the pronounced, for example: *here* has one syllable, *number* consists of two, and *combination* consists of four syllables.

Then the writer also measure the readability score by analyzing the students' perception as the second data. The procedure as follow:

1. The writer read the students' questionnaire sheet answer briefly.
2. The writer resume the respondents' answer
3. The writer describe the judgment points of the respondent into a descriptive analysis.

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<sup>9</sup> Daniel Rfee, et. Al, *Analyzing Media Messages*, New Jersey: Lawrebce Erlbaum Associates, Publisher Mahwah. Page. 177



## H. Method for Verification of the Research Findings

The validity of the data is the most important in the research in this study, to find and make the verification of the research findings, the writer held some verification of the data. The data collected in this study is suitable in reality. It is to keep the data collected are true data and responsible.

The validity of the data is the condition that fulfill :<sup>10</sup>

1. Explaining the right value,
2. Presenting a base that be applied,
3. Permitting other opinion that made consistency.

In acquiring the data, in this writer uses triangulation.<sup>11</sup> The triangulation used is theory triangulation which involves consideration of how the phenomenon under study might be explained by multiple theories. There are four techniques to determine the validity of data, namely credibility, transferability, dependability and conformability.<sup>12</sup> To test the validity of data the writer uses them, as follow:

1. Credibility

Credibility is the same as validity in quantitative research. The integrity of qualitative research depends on attending to the issue of validity. Validity concerns the accuracy or truthfulness of the findings. The term most frequently used by qualitative researchers to refer to this characteristic is credibility. Credibility in qualitative research concerns the truthfulness of the

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<sup>10</sup> Lexy J. Moleong, *Metodologi Penelitian Kualitatif*, Bandung : PT. Remaja Rosdakarya, p. 320-321.

<sup>11</sup> Imam Gunawan, *Metode Penelitian Kualitatif Teori dan Praktik*, Jakarta : PT. Bumi Aksara, 2013, p.288-289.

<sup>12</sup> Sugiono, *Memahami Penelitian Kualitatif Dilengkapi contoh proposal dan laporan Penelitian*, Bandung: Alfabeta, 2010, p. 366.

inquiry's findings.<sup>13</sup> In test of data credibility or internal validity, the data must be admitted and received the truth by information source from the field of the study. To effort in order that the truth of result of the students believed, it is supported by some ways as follow:

i. Extension Reading

The extension of reading to test the credibility of data research focused on the examination of the data has been obtained. If after rechecking the data that has been obtained found the right data then its mean the data is credible. In this study the writer done the extension of reading for one month for rechecking of data that have been found and analyzed.

ii. Increased Persistence

Increased persistence means to observe more closely and continuously. By increased persistence then the researcher can check to be sure that the data that has been found is wrong or not. The researcher can also provide an accurate description of the data about what is observed. In this study the writer increased her persistence by reading the variety of books reference and documentation related to the findings that have been studied.

iii. Use reference material

Reference material here means to prove the existence of supporting data that has been discovered by researcher.

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<sup>13</sup>Donald Ary, *Introduction to Research in Education Eight Edition*, Canada: Wadsworth, 2006, p. 500.

## 2. Transferability

Transferability relate to the questions, how far the result of the study might be applied by the other people in other context. Transferability is the external factor. Therefore, the writer demanded to report the data conclusion clearly, systematically and acceptably. To the result of the study could transfer to the similar classes.

## 3. Dependability

The technique is done by reporting of interim report or ending report that get of discussion with colleague. Discussing the data and information that have been collected from the others source. The technique has purpose, they are: The writer gift the true report of the research. The result and process must be balanced.

## 4. Confiamiability

A term used in qualitative research, equivalent to validity in quantitative research, related to the degree to which findings in a study can be corroborated by others investigating the same situation.<sup>14</sup> Conformability in qualitative research is the same as the quantitative researcher's concept of objectivity. Both deal with the idea of neutrality or the extent to which the research is free of bias in the procedures and the interpretation of results. Because it may be impossible to achieve the levels of objectivity that quantitative studies strive for, qualitative researchers are concerned with whether the data they collect and the conclusions they draw would be

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<sup>14</sup>Donald Ary, *Introduction to Research in Education Eight Edition*, Canada: Wadsworth, 2006, p. 638.

confirmed by others investigating the same situation. Thus, in qualitative studies, the focus shifts from the neutrality of the researcher to the confirmability of the data and interpretations.<sup>15</sup> In the present study, to reach the conformability the researcher followed the procedure of the study scientifically.

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<sup>15</sup>*Ibid.*, p. 504.