

CHAPTER III

RESEARCH METHOD

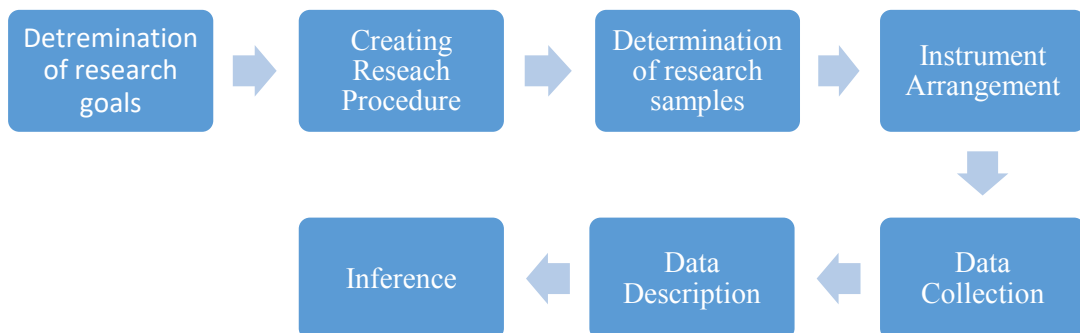
A. Research Type

This research entitled *The Readability Level of English Reading Text In The Senior High School Textbook* and it belongs to quantitative description research. According to Barelson as cited in Wimmer & Dominick (2005: 135), this research technique is to produce objective, systematic, and quantitative descriptions of the document. This method can also be used to investigate all documents, both printed and visual form, such as newspapers, radio, television, graffiti, advertisements, films, personal letters, books, holy books, and leaflets (Eriyanto, 2011: 1). For this research, the object to be analyzed is the texts in textbook that can be included as printed documents.

B. Research Design

The design of research shows the reserach procedure that will be done by the reseacher. The design is presented in the figure 1 below.

Figure 3. Research Design



This research is trying to reveal (1) the types of texts are contained in *Bahasa Inggris SMA for Grade X Semester 1* revised edition of 2017 published by the Ministry of Education and Culture. (2) The readability level

of reading text in the textbook using Cloze Test. (3) the readability level of reading text in the textbook using Fry Graphs and the SMOG Formula. (4) The differences of the readability level of reading text based on type of the texts in this textbook. (5) the factors affecting of the readability level based on the results of Cloze Test, Fry Graph and SMOG Formula. (6) The most suitable formula to the results of the Cloze Test.

The researcher has determined the research procedures in case of the subject and the object of this research and the next step is to determine the research sample. The sample will consists of two in which the samples of textbooks will be the research objects while the school samples are the subject of research. After the research samples have been set, the instruments is prepared in the form of Cloze Test in which the text that is arranged by the n-word formula. The instruments are then tested to students and the results are analyzed afterwards. The analysis is interpreted with the Cloze Test technique guidelines. Based on the interpretation, some conclusions are drawn as the answers to the research objectives.

C. Research Procedure

The procedures of this research consists of four steps. The following is the procedure for quantitative description research applied in this research. Krippendorff, (2004: 23).

1. Data Collection

Data are a unit of information recorded in media that can be distinguished by other data. It can be analyzed with existing techniques which is relevant to the research problem. Krippendorff as cited in Eriyanto (2011: 59) mentions the first procedure of quantitative description analysis is the unit

of analysis. Moreover, the unit of analysis according to Eriyanto can simply be described as part of the data that is examined and used to deduce the data of a text. The data is in the form of words, sentences, photos, scenes and paragraphs. In this research, the data are all the reading texts contained *Bahasa Inggris SMA for Grade X Semester 1* revised edition of 2017 published by the Ministry of Education and Culture.

Based on those data, three main components are formulated, namely the unit, the sample and the recording.

a. Unit

It is an activity to separate data into the analyzed parts. There are five ways to limit and identify units, namely physical units, syntactic units, referential units, proportional units, and semantic units. This research uses a physical unit. i.e a unit that is physically separated. This unit is chosen because the subject is the text in the textbook with physically difference of one another.

b. Sample

The sample units are selected units to be studied. The sample unit provides strict limit whether the aspects is examined or not (Eriyanto, 2011: 53-64). The sample units in this research are two, i.e the textbook samples and the respondents' samples.

The sample textbook unit is taken from the textbooks published by the Ministry of Education and Culture and samples respondents was the high school in Yogyakarta.

c. Recording

The data is in printed materials, so there is no requirement for recording or printing process. It already exists and can be taken directly for analysis.

2. Data reduction

Data reduction can be done by forming available data into one needed form by removing irrelevant data. This process is carried out during the selection of text samples for trial on the students.

3. Analysis

This process focuses on identifying and displaying some important patterns which are statistically significant or providing beneficial information. The analysis, in this research, is conducted on the results of the Cloze Test, Fry Graph and SMOG Formula.

4. Inference

Inference is a crucial part of quantitative description analysis. Therefore, The knowledge on the data context will greatly influence the success of inferences making or the meaning of the data analysis results. So, the results of the obtained data are then described based on the interpretation criteria.

D. Research Setting and Time

This research was conducted in three high schools in Yogyakarta starting from March 2018 until May 2019.

E. Research Subject

1. Population

Population refers to the entire research subject (Arikunto, 2010: 173). The population of this research is two, i.e the schools and the text type. The

school population includes high school students in Yogyakarta as the user of the textbook *Bahasa Inggris SMA for Grade X Semester 1* revised edition of 2017 published by the Ministry of Education and Culture.

Table 4. The List of Senior High Schools (SMA) In Yogyakarta

| No. | Name of Schools | Number of Student |
|-------|--|-------------------|
| 1 | State Senior High School 1 Yogyakarta | 291 Students |
| 2 | State Senior High School 2 Yogyakarta | 284 Students |
| 3 | State Senior High School 3 Yogyakarta | 223 Students |
| 4 | State Senior High School 4 Yogyakarta | 257 Students |
| 5 | State Senior High School 5 Yogyakarta | 259 Students |
| 6 | State Senior High School 6 Yogyakarta | 254 Students |
| 7 | State Senior High School 7 Yogyakarta | 250 Students |
| 8 | State Senior High School 8 Yogyakarta | 257 Students |
| 9 | State Senior High School 9 Yogyakarta | 192 Students |
| 10 | State Senior High School 10 Yogyakarta | 175 Students |
| 11 | State Senior High School 11 Yogyakarta | 274 Students |
| Total | | 2716 Students |

Furthermore, the text type contained in English textbook for X grade of SMA in Semester 1 compresses sixteen English reading texts as follows:

Table 5. The Text Titles In English Textbook SMA For X Grade

| No. | Text Titles | Text Type |
|-----|---|--------------------|
| 1 | An email from Hannah | Transactional Text |
| 2 | A letter from Saidah | Transactional Text |
| 3 | Congratulating and Complimenting Others | Transactional Text |
| 4 | Dialog: Expressing Intention | Transactional Text |
| 5 | Tanjung Puting National Park | Descriptive Text |
| 6 | Taj Mahal | Descriptive Text |
| 7 | Visiting Niagara Falls | Descriptive Text |
| 8 | An Announcement about Concert | Announcement |

| | | |
|----|--|----------------|
| | Cancellation | |
| 9 | An Announcement about McMaster Mini-Med School | Announcement |
| 10 | Interview With The Wright Brothers | Recount Text |
| 11 | Meeting My Idol | Recount Text |
| 12 | Heroes Days | Recount Text |
| 13 | B.J. Habibie | Recount Text |
| 14 | Cut Nyak Dhien | Narrative Text |
| 15 | Issumboshi | Narrative Text |
| 16 | The Legend of Malin Kundang | Narrative Text |

2. Reserach sample

The sample of this research is part or representative of the research population (Arikunto, 2010: 174). The school samples that will be taken in this research are three schools in Yogyakarta with three categories, such as superior, medium and lower category. This categorization is based on the results of National Examination ranking from 2016, 2017 and 2018. It is retrieved from the page of <https://puspendik.kemdikbud.go.id/hasil-un/>.

Through this categorization, the sample is expected to represent the readability level among the reading text of the senior high school textbook in Yogyakarta. The following are the three schools as the sample of the research.

Table 6. Schools sample

| No. | Name of school | Number of Students |
|-------|---------------------------------------|--------------------|
| 1 | State Senior High School 3 Yogyakarta | 223 Students |
| 2 | State Senior High School 6 Yogyakarta | 256 Students |
| 3 | State Senior High School 7 Yogyakarta | 250 Students |
| Total | | 729 Students |

Furthermore, selecting of the sample text. In this research, there is no sample was chosen by the researcher but the researcher will use all of the population of the text as an instrument of the research. This is done with some considering. One of them is it expected to really be able to describe the level of readability of the text as a whole in a high school textbook.

F. Data Collection Technique

The data collection technique used in this research is the test method. It is a series of questions or exercises to measure skills, intelligence knowledge, abilities or talents possessed by individuals or groups (Arikunto, 2010: 193). The test method is carried out by giving tests to students as research samples. The students are asked to complete the Cloze Test according to the instructions given by the researcher.

The data collection is carried out in three high schools (SMA) in Yogyakarta. Those are Firstly, State Senior High School 3 Yogyakarta located at Yos Sudarso street No. 7, Kotabaru, Gondokusuman, Yogyakarta - Postal Code 55224. Secondly, State Senior High School 6 Yogyakarta located at C. Simanjuntak street No. 2, Gondokusuman, Yogyakarta - Postal Code 55223 and the third is State Senior High School 7 Yogyakarta located at MT. Haryono street No. 47 Suryodiningratan, Mantrijeron, Yogyakarta - Postal Code 55141.

Furthermore, data collection techniques for Fry Graph and the SMOG Formula. In this research there are no data collection techniques for these two instruments, it because the data in the form of texts are already available in textbooks. Furthermore, there is no process of selecting research samples

because the entire text population in the textbook has been made as subjects and objects of research.

G. Research Instruments

The instrument is the tool used by researchers in collecting data to make the works easier and to guarantee better results. It means the process can be effective, and the results are accurate, complete, and systematic (Arikunto, 2010: 203). As mention earlier, the instrument used in this research is Cloze Test and the number of Cloze Test is similar to the sample of reading text, i.e three tests .

The research instrument based on the Cloze Test procedure from Wilson Taylor (1953) as cited in Lisnawati, Y, (2017). They has proposed a standard procedure for constructing cloze text, as follows.

1. Choosing a suitable text that does not require information the previous section.
2. Making omission on every n-word, regardless of the meaning and function of the omitted words.
3. Replacing the omitted parts with certain signs such as horizontal lines (----) with similar length of the word.
4. Giving a reproduced copy of all parts to students or test takers.
5. Instructing test takers to fill in the blank space by asking questions about the text, paying attention to the context and the remaining words.
6. Providing sufficient time to give the students opportunity to complete the exercises.

John Haskal has improves the construction with some variations as follows.

1. Choosing the texts with approximately 250 words.
2. Keeping the first and last sentences remains complete.
3. Starting the omission on the second sentence in every fifth word. The omission is indicated by a straight horizontal line with the same length of the omitted word.
4. If the fifth word is in the form of number, then the omission is done in the fifth word for the next sentence.

The instruments for the Fry Graph and SMOG Formula are the researcher himself who become the research instruments. That is, researcher conducted all stages of research starting from the planner, implementing data collection, analysis, interpreting data, and ultimately became the reporter of the results of his research, Moleong (2007: 168).

H. Validity and Reliability

Validity is a measure of the accuracy of an instrument used as a measurement tool (Arikunto, 2010: 144). The validity used in this research is content validity and construct validity. The content validity was chosen because the subject of this research was content or textbook. Content validity means the tests are developed based on the materials given to the grade X Students of SMA 6 Yogyakarta. For the grade X students, the materials or genre of texts are descriptive, recount, and narrative, transactional, announcement. Whereas construct validity is chosen because the purpose of making an instrument is measuring readability level of text in in *Bahasa Inggris SMA for Grade X Semester 1* revised edition of 2017 published by the Ministry of Education and Culture . The validity of the instrument was developed based on the standard Cloze Test of Wilson Taylor as cited in

Lisnawati, Y (2017). Furthermore, the instrument was validated by two expert judgments.

Reliability instrument is an instrument that is trusted for used as a data collection tool (Arikunto, 2010: 146). Reliability Cloze Test instrument According to Harisson as cited in Sulistyorini (2006) states that the Cloze Test has the following characteristics: (1) Form the Cloze Test is the same. (2) Readings taken are original readings from textbooks that do not need to be changed except word removal for question stuffing. (3) This test is not requires analysis of test items. (4) The Cloze Test has high reliability. In addition, Mariotti and Homan (2001) states that the Cloze test is the best test way to measure readability. Therefore, the researcher did not conduct a reliability test for this instrument.

5. Data Analysis Technique

The data in the form of Cloze Test sheets filled by the students as respondents are then corrected based on the answers key. The results are recorded and summarized in the form of tables for further analysis. As mentioned in the sub-chapter of the research instrument, this research uses the criteria of Cloze Test technique to measure text readability. One of them is on Cloze Test evaluation. Based on these criteria, the answer that exactly matches to the anwer key considered correct. These evaluation criteria become the guidelines in investigating the students' works.

The assessment result from the student's answer sheets are then presented in percentage scores. For this process, Earl F Rankin and Joseph W Culhane as cited in Viny, C. (2017) has established the results interpretation for the Cloze Test as follows:

1. The readability score less than 40% indicates the reading material is difficult to understand. It means the reading material is inappropriate for the reader.
2. The readability score ranging from 41 to 60% indicates that the reading material is at the instructional level. It means the reading material is appropriate for the reader but they need some assistances to guide them in understanding the materials.
3. The readability score more than 60% indicates the reading material is at the independent or free level. It means the material is easy to understand and the reader can use it independently.

Furthermore, data analysis techniques for Fry Graph are as follows.;

1. Choosing a representative text of the text that have been collected.
2. Counting the number of sentences in each text piece of one hundred words.
3. Counting the number of syllables in each one hundred word piece.
4. Paying attention to the Fry Graph formula. The vertical line (column) shows the number of sentences per hundred words and the horizontal line (line) shows the number of syllables per hundred words. (Harjasujana as cited in Nuryani, 2016).

The zone where the two coordinates meet will indicate the level of the reader (Dubay, 2007).

The last, the data analysis technique for the instrument of SMOG Formula McLaughlin, G. (1969), as follows:

1. Counting 10 consecutive sentences at the beginning, middle and end (total of 30 sentences).
2. Counting each word consist of three or more syllables in 30 sentences, even if the same word appears more than once.
3. Adding the calculated number of words. Then, use the Table SMOG Conversion to find grade levels.
4. If the discourse or text is less than 30 sentences but not less than 10 sentences then do the following steps:
 1. Counting the total number of sentences in the reading.
 2. Counting the number of words with 3 or more syllables.
 3. Finding the appropriate number of sentences and number of conversions in the SMOG II Conversion Table.
 4. Adding up the number of words with 3 or more syllables with the conversion number. Then, use the number of words to find the correct value level from Table SMOG I.