

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. Research Method

Research methodology is a scientific way to get data to answer the problem. Basically, this research is based on library research, where the researcher tries to collect data from the literatures from books, journals, or other documents as sources of data.<sup>72</sup> Library research used to obtain written sources as the basis of the research by reading and analyzing. It means that data will be displayed and explained without hypothesis.

In conducting this study, the researcher uses descriptive qualitative approach because it focuses on the analysis or interpretation of reading material in textbook. The qualitative research generally describes the social phenomena in natural context.<sup>73</sup> It aims to drive the significant meaning from a specific event, fact, occurrence, reality or issue.<sup>74</sup> To get the significant meaning the data of this study were analyzed by describing, identifying, and analyzing the text then the data will be explained.

#### B. Research Subject

The subject of this research is obtained from the English textbook “Stop Bullying Now” for second grade of senior high school by Mahrukh Bashir published by the Ministry of Education and Culture in 2017. The researcher refers to reading texts from the textbook as the data source for this study. There are 11 reading texts. Five texts in eight units and six ones in the enrichment part which are classified as different types of text. They are exposition text, personal letter, explanation text, and narrative text.

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<sup>72</sup> Abdurrahmat Fathoni, *Metodologi Penelitian dan Tehnik Penyusunan Skripsi* (Jakarta: Rineka Cipta, 2006), 95.

<sup>73</sup> Donald Ary, et.al., *Introduction to Research in Education 8<sup>th</sup> Edition* (Belmont: Wadsworth Cengage Learning, 2010), 22.

<sup>74</sup> Conny R. Semiawan, *Metode Penelitian Kualitatif: Jenis, Karakteristik, dan Keunggulannya* (Jakarta: PT Grasindo, 2010), 106.

### C. Data Source

The data source according to Arikunto is the subject that provides information which the data can be found.<sup>75</sup> The data of this research relate to reading text in the English textbook grade XI by Mahrukh Bashir, especially focus on the lexical density and readability of the reading text. The data sources are listed below:

#### 1. Primary Data Source

Primary data sources are data sources that provide information to researcher directly.<sup>76</sup> In this research the English textbook “Stop Bullying Now” by Mahrukh Bashir as a primary data source. It was released in 2017 by the Ministry of Education and Culture. In this study the researcher focuses on reading texts. There are 8 chapters with 5 reading texts, and enrichment part with 6 reading texts.

#### 2. Secondary Data Source

Secondary data source is the source that provides indirect information as data.<sup>77</sup> The secondary data used by researcher to support the theories of this study. It takes from books and journals. For lexical density theory the researcher uses books from Michael Stubbs, *Words and Phrases: Corpus Studies of Lexical Semantics* and M. A. K. Halliday entitled *Language and Education*. The researcher also takes from journal articles entitled *Lexical Diversity and Lexical Density in Speech and Writing: A Developmental Perspective* by Johansson and the article from Dian Sari entitled *Measuring Quality of Reading Materials in English Textbook*. For readability theory the researcher uses *The Principle of Readability* by William H. DuBay and book from Alan Bailin and Ann Grafstein entitled *Readability: Text and Contexts*. The secondary data are used to support and to make convince the research.

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<sup>75</sup> Arikunto Suharsimi, *Prosedur Penelitian: Suatu Pendekatan Praktik* (Jakarta: Rineka Cipta, 2006), 129.

<sup>76</sup> Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D* (Bandung: ALFABETA, 2010), 308.

<sup>77</sup> Sugiyono, *Metode Penelitian Pendidikan*..... 309.

#### D. Instrument and Data Collection Technique

Data collection technique is the main step in conducting research. To collect data, researcher used documentation study, which is a data collection by collecting, reviewing, and analyzing the document.<sup>78</sup> Documents are materials used to explain some of the attributes of an object, system, or procedure.<sup>79</sup> In this case, the documents take from the reading texts in the English textbook grade XI by Mahrukh Bashir. It focuses on the reading text to get the percentage of lexical density and the readability in each text.

#### E. Data Analysis Technique

Data analysis is the process of organizing, selecting and classifying data, finding patterns and making general findings.<sup>80</sup> In this study, the researcher needs to understand and interpret the data deeply to get answer the problems. Therefore, she uses content analysis as a method to analyzing data. It is a form of research method that aims to identify particular features of information related to written or visual material.<sup>81</sup> After collecting the data then they are classified and analyzed within three steps according to Miles and Huberman steps:<sup>82</sup>

1. Data reduction. Reducing data means the process of selecting the important things, focusing, and categorizing data. This process helps the researcher to find the further data easier.
2. Data display. By this process data can be structured and organized well. So that it will make information easier to understand.
3. Conclusion / verification is the last step. In making conclusion it takes from data reduction and data

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<sup>78</sup> Bowen Glen A, "Document Analysis as a Qualitative Research Method," *Qualitative Research Journal* 9, no 2, (2009), 27.

<sup>79</sup> Arikunto Suharsimi, *Prosedur Penelitian.....*, 129.

<sup>80</sup> Lexy J. Moleong, *Metodologi Penelitian Kualitatif* (Bandung: PT Remaja Rosdakarya, 2017), 248.

<sup>81</sup> Donald Ary, et.al., *Introduction to Research in Education.....*457.

<sup>82</sup> Miles et.al., *Qualitative Data Analysis: a Methods Sourcebook* (London: Sage Publication, 2014), 31-33.

display, all of these are interrelated. But this conclusion is preliminary and provisional.

From these steps, the researcher starts to analyze the data as follows:

1. Analyzing lexical density
  - a. Data reduction  
This process starting from reading and then identifying the data, selecting which one the lexical items and which one grammatical items in a sentence. Focusing and calculating the number of lexical items and grammatical items.
  - b. Data display  
In presenting the data, the researcher makes the table below.

**Table 3. 1 Data Display of Lexical Items**

No	Text	Noun	Verb	Adjective	Adverb	Total lexical items

- c. Conclusion/verification  
Making conclusion using the Ure’s formula to count the portion or ratio of the lexical density.<sup>83</sup>

**Table 3. 2 The Formula of Lexical Density**

$$Lexical\ density = \frac{Number\ of\ Lexical\ Items}{Total\ Number\ of\ Words} \times 100$$

There are some criteria in classifying the lexical density. If the percentage 60-70 % is high lexical

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<sup>83</sup> Michael Stubbs, Words and Phrases: Corpus Studies of Lexical Semantics, 41.

density. 50-60% is quite lexical density. And 40-50% is low lexical density. The percentage of lexical density in the text will affect the level of difficulty of the text.

2. Analyzing readability

a. Data reduction

Selecting the reading text that need to be analyzed by using the automatically online test online-utility.org and howmanysyllables.com. Insert the text on the web. Focus on the number of sentences, words, and syllable of the text.

b. Data display

The results of data reduction can be seen in the table below

**Table 3. 3 Data Display of Readability**

No	Text	Total of words	Total of sentences	Total of syllables	ASL (total of words / total of sentences)	ASW (total of syllables / total of words)

c. Conclusion/verification

The way to get the result of readability test, first calculate the ASL (Average Sentence Length) and ASW (Average Syllable per Word).

ASL : total of words / total of sentences

ASW : total of syllable / total of word

After that calculates using Flesch Reading Ease formula.<sup>84</sup>

**Table 3. 4 The Formula of Readability**

$$RE : (206.835 - (1.015 \times ASL)) - (84.6 \times ASW)$$

(William H. DuBay, 2004)

**Table 3. 5 The Level of Readability Test by Flesch Reading Ease Scale**

Reading Ease Score	Description	Reading Grade
0 – 29	Very Difficult	College Graduate
30 – 49	Difficult	13 <sup>th</sup> – 16 <sup>th</sup> grade
50 – 59	Fairly Difficult	10 <sup>th</sup> – 12 <sup>th</sup> grade
60 – 69	Standard	8 <sup>th</sup> – 9 <sup>th</sup> grade
70 – 79	Fairly Easy	7 <sup>th</sup> grade
80 – 89	Easy	6 <sup>th</sup> grade
90 – 100	Very Easy	5 <sup>th</sup> grade

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<sup>84</sup> William H. DuBay, *The Principles of Readability* (California: Costa Mesa, 2004), 21.