CHAPTER IV

FINDING AND DISCUSSIONS

A. Research Results

1. Data Description

a. Biography of Mahrukh Bashir

Mahrukh Bashir, M.Ed. was born in Kashmir, India. She is a curriculum advisor and language teacher in Lazuardi GIS, Depok Indonesia.⁸⁵ She studied for Human Science/Mass Communications Honors at International Islamic University, Malaysia from 1994 to 1999. Then, in December 2003, she continued her studies for postgraduate and took Education/Guidance & Counselling at International Islamic University, Malaysia and graduated in August 2006. Currently, she lives in Depok with her husband and daughter.⁸⁶

Mahrukh Bashir is known as the iniator of design for change in Indonesia (Taman Gagasan Anak) and specializes in internationalization of educational is a TED (Technology, Mahrukh programs. Entertainment, Design) innovative educator with two decades international and communication. She is a Cambridge, Harvard, Microsoft, and Google certified educator. In addition, she has spoken at a number of educational conferences.⁸⁷ Besides that, she is a national author and has published several textbooks according to the Indonesian curriculum and followed by the Ministry of Education in Indonesia.⁸⁸ And one of the textbooks is Bahasa Inggris "Stop Bulliving Now" for XI Senior High School, which is currently being researched by the researcher.

⁸⁵ Mahrukh Bashir, *Bahasa Inggris: Stop Bullying Now* (Jakarta: Kementrian Pendidikan dan Kebudayaan, 2017), 167

⁸⁶ Mahrukh Bashir, Bahasa Inggris: Stop Bullying Now, 167

⁸⁷Climate Action, Mahrukh Bashir Indonesia, accessed on <u>www.climate-action.info/users/mahrukh-bashir</u>, May 30th 2021 at 11.30 am.

⁸⁸Climate Action, Mahrukh Bashir Indonesia, accessed on <u>www.climate-action.info/users/mahrukh-bashir</u>, May 30th 2021 at 11.30 am.

b. Textbook Bahasa Inggris "Stop Bulliying Now" for XI Senior High School

The textbook used by the researcher is English textbook "Stop Bullying Now" for XI grade of senior high school. This textbook was written by Mahrukh Bashir and published by the Ministry of Education and Culture of Indonesia. The last version is the 2017 revision edition.

There are 170 pages and two parts. In part one there are 8 chapters and in part two (Enrichment Part) there are 7 chapters. The special thing about this book is there is an enrichment part which focuses on reading session. This book uses the 2013 curriculum and represents the basic competence of the eleventh graders' senior high school syllabus. Mrs. Valuati Dewi, English teacher of SMAN 1 Welahan, revealed the reasons why she uses this English textbook. She states that this English textbook is dropped by the Ministry of Education of Indonesia, so this book is the most appropriate for the syllabus. And it has a wide variety of reading texts. Therefore, it is very suitable for learning reading comprehension.⁸⁹

In this study, the researcher focuses on reading session to analyze the lexical density and readability of the texts. There are 11 reading texts which consists of 4 analytical exposition texts entitled Global Warming, Banning of Motorbike is Necessary, Bullying, and Speech of President Sukarno. 2 explanation texts entitled Earthquakes and How Volcanos are Formed. 2 personal letters. 3 narrative texts (folklore and biography text) entitled The Enchanted Fish, The Last Leaf, and Life & Times of Ki Hajar Dewantara. The 11 texts of this textbook as the data of this research.

2. Analyzing Lexical Density of Reading Texts in English Textbook "Stop Bullying Now" by Mahrukh Bashir

⁸⁹ Valuati Dewi, Whatsapp message to researcher, July 25, 2021.

Lexical density is used to find how informative the text is. The first step of analyzing lexical density was identified between lexical items and grammatical items of the text. And then counting the number of lexical items such as noun, verb, adjective, and adverb. To identify those lexical items the resaercher used parts-of-speech.info.⁹⁰ There were 11 texts in the English textbook of the second grade of senior high school. The data result was displayed below.

| No | Text | Noun | Verb | Adjective | Adverb | Total lexical items |
|----|--------------------------------------|------|------|-----------|--------|---------------------------|
| 1. | Glob <mark>al</mark> Warming | 80 | 27 | 29 | 11 | 147 |
| 2. | Banning of Motorbikes | 102 | 29 | 28 | 19 | 178 |
| 3. | Personal Letter | 48 | 26 | 14 | 17 | 105 |
| 4. | Earthquakes | 60 | 19 | 24 | 10 | 113 |
| 5. | How volcanos are formed? | 45 | 20 | 5 | 3 | 73 |
| 6. | The Enchanted Fish | 178 | 173 | 65 | 61 | 477 |
| 7. | Bullying | 164 | 118 | 66 | 41 | 389 |
| 8. | President Sukarno of Indonesia | 124 | 53 | 45 | 30 | 252 |

Table 4. 1 Data Display of Lexical Items

⁹⁰ Parts-of-speech.info, POS tagging online, <u>https://parts-of-speech.info/</u> accessed on 5 May 2021.

| 9. | Letter to God | 254 | 197 | 59 | 52 | 562 |
|-----|-----------------------|-----|-----|----|----|-----|
| 10. | The Last Leaf | 242 | 160 | 69 | 68 | 539 |
| 11. | Ki Hajar Dewantara | 223 | 62 | 51 | 14 | 350 |

The second step was counting the lexical density using Ure's formula.91

Number of Lexical Items

X 100

Total Number of Words

The results were presented in these calculations.

Text 1, chapter 4, page 46 a.

Lexical density =

Text 1 was Global Warming. This text had 147 lexical items and 125 grammatical items. The total number of words was 272.

| | Number of Lexical Items | X 100 |
|--|-------------------------------|-------|
| <i>Lexical density</i> = | Total Number of Words | |
| Lexical density = Lexical density = | 147 272 54,04% X 100 | |

Because text 1 had 54,04% so this text was categorized as quite lexical density.

Text 2, chapter 4, page 50 b.

> Text 2 was Banning of Motorbikes is Necessary in Housing Area. This text had 178 lexical items and 147 grammatical items. The total number of words was 325. Number of Lexical Items

> > *Lexical density* =

X 100

Total Number of Words

⁹¹ Michael Stubbs, Words and Phrases: Corpus Studies of Lexical Semantics (Oxford: Blackwell Publishing, 2002), 41.

| | 178 | ¥7 100 |
|--------------------------|--------|--------|
| <i>Lexical density</i> = | 325 | X 100 |
| Lexical density = | 54,77% | |

Because text 2 had 54,77% so this text was categorized as quite lexical density.

c. Text 3, chapter 5, page 62

Text 3 was Personal Letter. This text had 105 lexical items and 109 grammatical items. The total number of words was 214.

| | Number of Lexical Items | V 100 |
|-------------------|-------------------------------------|-------|
| Lexical density = | Tota <mark>l</mark> Number of Words | X 100 |
| Lexical density = | $\frac{105}{214}$ X 100 | |
| Lexical density = | 49,07% | |

Because text 3 had 49,07% so this text was categorized as low lexical density.

d. Text 4, chapter 8, page 100

Text 4 was Earthquakes. This text had 113 lexical items and 83 grammatical items. The total number of words was 196.

| Lexical density = | Number of Lexical ItemsTotal Number of Words | X 100 |
|-------------------|--|-------|
| Lexical density = | $\frac{113}{196}$ X 100 | |
| Lexical density = | 57,65% | |

Because text 4 had 57,65% so this text was categorized as quite lexical density.

e. Text 5, chapter 8, page 106 Text 5 was How Volcanos are Formed. This text had 73 lexical items and 68 grammatical items. The total number of words was 141.

| Lexical density = | Number | X 100 | |
|-------------------|----------|-------|--|
| | Total Ni | | |
| Lexical density = | 73 | X 100 | |
| Lexical density = | 51,77% | | |

Because text 5 had 51,77% so this text was categorized as quite lexical density.

f. Text 6, enrichment part, page 117-119 Text 6 was The Enchanted Fish. This text had 477 lexical items and 548 grammatical items. The total number of words was 1025.

 $Lexical density = \frac{Number of Lexical Items}{Total Number of Words} \times 100$ $Lexical density = \frac{477}{1025} \times 100$ Lexical density = 46,54%

Because text 6 had 46,54% so this text was categorized as low lexical density.

g. Text 7, enrichment part, page 124-126 Text 7 was Bullying. This text had 389 lexical items and 383 grammatical items. The total number of words was 772.

| T 1 1 1 | Number of Lexical Items | X 100 |
|-------------------|-------------------------|-------|
| Lexical density = | Total Number of Words | |
| Lexical density = | 389 772 X 100 | |
| Lexical density = | 50,39% | |

Because text 7 had 50,39% so this text was categorized as quite lexical density.

h. Text 8, enrichment part, page 130-131

Text 8 was President Sukarno of Indonesia. This text had 252 lexical items and 250 grammatical items. The total number of words was 502.

| | Number of Lexical Items | V 100 |
|--------------------------|-------------------------|--------------|
| <i>Lexical density</i> = | Total Number of Words | А 100 |
| Lexical density = | 252 502 X 100 | |
| Lexical density = | 50,20% | |

Because text 8 had 50,20% so this text was categorized as quite lexical density.

i. Text 9, enrichment part, page 146-149 Text 9 was Letter to God. This text had 562 lexical items and 585 grammatical items. The total number of words was 1147.

| Lexical density = | Number of Lexical Items | | | | |
|--|--------------------------------|-------|--|--|--|
| | Total Number of Words | X 100 | | | |
| Lexical density = Lexical density = | 562 1147 48,99% X 100 | | | | |

Because text 9 had 48,99% so this text was categorized as low lexical density.

j. Text 10, enrichment part, page 154-156 Text 10 was The Last Leaf. This text had 539 lexical items and 482 grammatical items. The total number of words was 1021.

| Lexical density = Lexical density = | Number of Lexical Items | X 100 |
|--|--------------------------|-------|
| | Total Number of Words | |
| Lexical density = | $\frac{539}{1021}$ X 100 | |
| Lexical density = | 52,79% | |

Because text 10 had 52,79% so this text was categorized as quite lexical density.

k. Text 11, enrichment part, page 161-162
Text 11 was Life and Times of Ki Hajar Dewantara. This text had 350 lexical items and 319 grammatical items. The total number of words was 669.



Because text 11 had 52,32% so this text was categorized as quite lexical density.

Based on these calsculations, the result of lexical density score in the reading texts of the English textbook Eleventh Grade Senior High School can be seen in the following table.

| No | Text | Lexical Items | Gramm atical Items | Word | Lexical Density | Level LD |
|----|-------------------------|------------------|--------------------------|------|--------------------|-------------|
| 1. | Global Warming | 147 | 125 | 272 | 54, 04 | Quite |
| 2. | Banning of Motorbike | 178 | 147 | 325 | 54, 77 | Quite |
| 3. | Personal Letter | 105 | 109 | 214 | 49,07 | Low |
| 4. | Earthquakes | 113 | 83 | 196 | 57, 65 | Quite |

 Table 4. 2 Data Result of Lexical Density

| 5. | How Volcanos Are Formed? | 73 | 68 | 141 | 51, 77 | Quite |
|-----|------------------------------------|---------|-------|------|--------|-------|
| 6. | The Enchanted Fish | 477 | 548 | 1025 | 46, 54 | Low |
| 7. | Bullying | 389 | 383 | 772 | 50, 39 | Quite |
| 8. | President Suk <mark>arno</mark> | 252 | 250 | 502 | 50, 20 | Quite |
| 9. | Lett <mark>er</mark> to God | 562 | 585 | 1147 | 48, 99 | Low |
| 10. | The Last Leaf | 539 | 482 | 1021 | 52, 79 | Quite |
| 11. | Ki Hajar Dewantara | 350 | 319 | 669 | 52, 32 | Quite |
| | A | 51, 68% | Quite | | | |

According to the table above, eight of the eleven reading texts were classified as high lexical density, while three others were classified as low lexical density. There were no texts classified as having high lexical density because the score was less than 60%. And the average score of lexical density was 51, 68%. It means these reading texts are quite lexical density and quite informative for eleventh grade of senior high school.

3. Analyzing Readability of Reading Texts in English Textbook "Stop Bullying Now" by Mahrukh Bashir

A readability test is used to determine the level of difficulty of the text in the English textbook, and to know how readable the text is. The first step to measure the readability was counting the text's words, the sentences, and the syllables. And then counting the ASL (Average Sentence Length) and ASW (Average Syllable per Word). To found these, the researcher used online-utility.org to find the total of words and the sentences and howmanysyllables.com to find the total of syllables.^{92 93} The step to use these two websites just copy paste the texts and the result will automatically appear. And the results can be seen in the table below.

| N o | Text | Total of words | Total of senten ces | Total of syllabl es | ASL (total of words / total of sentences) | ASW (total of syllables / total of words) |
|--------|--------------------------------|----------------------|------------------------------|------------------------------|---|---|
| 1. | Global Warming | 272 | 16 | 455 | 17, 00 | 1, 67 |
| 2. | Banning of Motorbike | 325 | 21 | 530 | 15, 48 | 1, 63 |
| 3. | Personal Letter | 214 | 19 | 306 | 11, 26 | 1, 43 |
| 4. | Earthquakes | 196 | 12 | 316 | 16, 33 | 1, 61 |
| 5. | How Volcanos are Formed? | 141 | 8 | 195 | 17, 63 | 1, 38 |
| 6. | The Enchanted Fish | 1025 | 81 | 1248 | 12, 65 | 1, 22 |
| 7. | Bullying | 772 | 45 | 1212 | 17, 16 | 1, 57 |

Table 4. 3 Data Display of Readability

⁹²Online utility.org, Text Analyzer, https://www.online-utility.org/text/analyzer.jsp, accessed on 20 May 2021.

⁹³How Many Syllables, Wokshop Syllables Counter, https://www.howmanysyllables.com/syllable_counter/, accessed on 20 May 2021.

a.

| 8. | President Sukarno | 502 | 34 | 788 | 14, 76 | 1, 57 |
|-----|-----------------------|------|----|------|--------|-------|
| 9. | Letter to God | 1147 | 92 | 1548 | 12, 47 | 1, 35 |
| 10. | The Last Leaf | 1021 | 99 | 1338 | 10, 31 | 1, 31 |
| 11. | Ki Hajar Dewantara | 669 | 35 | 1210 | 19, 11 | 1, 81 |

The next step was counting the readability text using Flesch Reading Ease Formula.⁹⁴

RE : (206.835 - (1.015 x ASL) - (84.6 x ASW))

The results were presented in the calculation below. Text 1, chapter 4, page 46

In text 1 there were 272 words, 16 sentences, and 455 syllables. The average sentence length was 17, 00, and the average syllable per word was 1, 67.

RE :
$$(206.835 - (1.015 \text{ x ASL}) - (84.6 \text{ x ASW})$$

(206.835 - (1.015 x 17.00) - (84.6 x 1.67)
(206.835 - 17.255 - 141.282)
= 48.30

The readability of text 1 was 48,30. Based on the description of the Flesch Reading Ease Score this text had a difficult level.

b. Text 2, chapter 4, page 50
In text 2 there were 325 words, 21 sentences, and 530 syllables. The average sentence length was 15, 48, and the average syllable per word was 1, 63.

⁹⁴ William H. DuBay, *The Principles of Readability* (California: Costa Mesa, 2004), 21.

RE : (206.835 - (1.015 x ASL) - (84.6 x ASW)(206.835 - (1.015 x 15.48) - (84.6 x 1, 63)(206.835 - 15.712 - 137.898)= 53,22

The readability of text 2 was 53,22. Based on the description of the Flesch Reading Ease Score this text had a fairly difficult level.

c. Text 3, chapter 5, page 62

In text 3 there were 214 words, 19 sentences, and 306 syllables. The average sentence length was 11, 26 and the average syllable per word was 1, 43.

RE : (206.835 - (1.015 x ASL) - (84.6 x ASW)(206.835 - (1.015 x 11.26) - (84.6 x 1.43) (206.835 - 11.429 - 120.978) = 74.43

The readability of text 3 was 74,43. Based on the description of the Flesch Reading Ease Score this text had a fairly easy level.

d. Text 4, chapter 8, page 100

In text 4 there were 196 words, 12 sentences, and 316 syllables. The average sentence length was 16, 33 and the average syllable per word was 1, 61.

RE : (206.835 - (1.015 x ASL) - (84.6 x ASW)(206.835 - (1.015 x 16.33) - (84.6 x 1.61)(206.835 - 16.575 - 136.206)= 54.05

The readability of text 4 was 54,05. Based on the description of the Flesch Reading Ease Score this text had a fairly difficult level.

e. Text 5, chapter 8, page 106 In text 5 there were 141 words, 8 sentences, and 195 syllables. The average sentence length was 17, 63 and the average syllable per word was 1, 38.

RE : (206.835 - (1.015 x ASL) - (84.6 x ASW))

(206.835 – (1.015 x 17.63) – (84.6 x 1.38) (206.835 – 17.894 – 116.748) = 72,19

The readability of text 5 was 72,19. Based on the description of the Flesch Reading Ease Score this text had a fairly easy level.

f. Text 6, enrichment part, page 117-119 In text 6 there were 1025 words, 81 sentences, and 1248 syllables. The average sentence length was 12, 65 and the average syllable per word was 1, 22.

> RE : $(206.835 - (1.015 \times ASL) - (84.6 \times ASW)$ $(206.835 - (1.015 \times 12.65) - (84.6 \times 1.22)$ (206.835 - 12.840 - 103.212)= 90.78

The readability of text 6 was 90,78. Based on the description of the Flesch Reading Ease Score this text had a very easy level.

g. Text 7, enrichment part, page 124-126 In text 7 there were 772 words, 45 sentences, and 1212 syllables. The average sentence length was 17, 16 and the average syllable per word was 1, 57.

> RE : (206.835 - (1.015 x ASL) - (84.6 x ASW)(206.835 - (1.015 x 17.16) - (84.6 x 1.57) (206.835 - 17.417 - 132.822) = 56.60

The readability of text 7 was 56,60. Based on the description of the Flesch Reading Ease Score this text had a fairly difficult level.

- h. Text 8, enrichment part, page 130-131 In text 8 there were 502 words, 34 sentences, and 788 syllables. The average sentence length was 14, 76 and the average syllable per word was 1, 57.
 - RE : (206.835 (1.015 x ASL) (84.6 x ASW) (206.835 – (1.015 x 14.76) – (84.6 x 1.57)

(206.835 - 14.981 - 132.822) = 59,03

The readability of text 8 was 59,03. Based on the description of the Flesch Reading Ease Score this text had a fairly difficult level.

i. Text 9, enrichment part, page 146-149 In text 9 there were 1147 words, 92 sentences, and 1548 syllables. The average sentence length was 12, 47 and the average syllable per word was 1, 35.

> RE : (206.835 - (1.015 x ASL) - (84.6 x ASW)(206.835 - (1.015 x 12.47) - (84.6 x 1.35) (206.835 - 12.657 - 114.21) = 79.97

The readability of text 9 was 79,97. Based on the description of the Flesch Reading Ease Score this text had a fairly easy level.

- j. Text 10, enrichment part, page 154-156 In text 10 there were 1021 words, 99 sentences, and 1338 syllables. The average sentence length was 10, 31 and the average syllable per word was 1, 31.
 - RE : (206.835 (1.015 x ASL) (84.6 x ASW)(206.835 - (1.015 x 10.31) - (84.6 x 1.31) (206.835 - 10.465 - 110,826) = 85,54

The readability of text 10 was 85,54 Based on the description of the Flesch Reading Ease Score this text had an easy level.

- k. Text 11, enrichment part, page 161-162
 In text 11 there were 669 words, 35 sentences, and 1210 syllables. The average sentence length was 19, 11 and the average syllable per word was 1, 81.
 - $\begin{array}{rl} \text{RE} & : (206.835 (1.015 \text{ x ASL}) (84.6 \text{ x ASW}) \\ & (206.835 (1.015 \text{ x } 19.11) (84.6 \text{ x } 1.81) \\ & (206.835 19.397 153.126) \end{array}$

= 34,31

The readability of text 11 was 34,31. Based on the descripyion of the Flesch Reading Ease Score this text had a difficult level.

4. The Relevance of Lexical Density and Readability to the Grade Level of Reading Texts in English Textbook "Stop Bullying Now" by Mahrukh Bashir

The results of the lexical density and readability test above were then related to the grade-level text. The following data was discovered as a result of this study.

| No | Text | Lexical Density | Reada bility | Level LD | Level Text | Grade Level |
|-----|-------|--------------------|----------------------|-------------|---------------------|----------------|
| 1. | GW | 54, 04 | 4 <mark>8, 30</mark> | Quite | Difficult | 13th-16th |
| 2. | BoF | 54, 77 | 53, 22 | Quite | Fairly difficult | 10th-12th |
| 3. | PL | 49,07 | 74, 43 | Low | Fairly easy | 7th |
| 4. | EQ | 57, 65 | 54, 05 | Quite | Fairly difficult | 10th-12th |
| 5. | VOL | 51, 77 | 72, 19 | Quite | Fairly easy | 7th |
| б. | TEF | 46, 54 | 90, 78 | Low | Very easy | 5th |
| 7. | BLYNG | 50, 39 | 56, 60 | Quite | Fairly difficult | 10th-12th |
| 8. | PSoI | 50, 20 | 59, 03 | Quite | Fairly difficult | 10th-12th |
| 9. | LtG | 48, 99 | 79, 97 | Low | Fairly easy | 7th |
| 10. | TLL | 52, 79 | 85, 54 | Quite | Easy | 6th |

Table 4. 4 Data Display of Grade Level of Texts

| 11. | KHD | 52, 32 | 34, 31 | Quite | Difficult | 13th-16th |
|---------------|-----|--------|--------|-------|-----------|-----------|
| Average score | | 51, 68 | 64, 40 | Quite | Standard | 8th-9th |

After knowing the score of lexical density and readability of the texts, the grade level in each text can be determined. From the table above, it can be seen there were 4 texts that were categorized as fairly difficult level. So these 4 texts were appropriate for eleventh grade in senior high school. Those texts were text 2 (Banning of Motorbike) with a readability score of 53.22, text 4 (Earthquakes) with a readability score of 54.05, text 7 (Bullying) with a readability score of 56.60, and text 8 (President Sukarno of Indonesia) with a readability score of 59.03. And the score of lexical density from the four texts at the same level, which was categorized as quite lexical density.

B. Discussion

Lexical density is used to determine the density of a text and to find how informative the text is. From this research, it can be concluded that from 11 texts in the English textbook grade eleventh, no one text was categorized as high lexical density. There were three texts with low lexical density and eight texts with quite lexical density.

Solichatun said that a text with low lexical density is a text that has a score between 40-50% and when the number of grammatical items is higher than lexical items.⁹⁵ In this case, there were 3 texts categorized as low lexical density. They were text 3, text 6, and text 9. As for text that had a lexical density between 50-60%, it can be categorized as quite lexical density. These texts such as text 1, text 2, text 4, text 5, text 7, text 8, text 10, and text 11. These texts had varied vocabulary in conveying the contents of the text so that there were more lexical items than the grammatical items.

Johansson stated the concept of lexical density refers to the way information is packaged; a text with higher lexical

⁹⁵ Siti Solichatun, "Content Analysis of Reading Materials in English on Sky Textbook for Junior High School" (publish dissertation, UIN Walisongo, 2011), 25.

items than grammatical items contains more information.⁹⁶ So that text with a high lexical item can be more difficult to understand because there is more information and vice versa⁹⁷ In addition, the great written text has a simple sentence structures with high lexical item. Because if the text has a complex sentence structure will be increased grammatical items and decreased lexical items (spoken text).⁹⁸ Therefore, although the number of words was high, it did not mean the score of lexical density also increased.

It can be seen in table 4.2, The Enchanted Fish (Text 6) had 1025 words but it was categorized as the lowest lexical density, which was 46.54% because the grammatical item was higher than the lexical item. Meanwhile, Earthquakes (Text 4) had 196 words but it was categorized as the highest lexical density with a score of 57.65% because had a simple sentence structure and the lexical item was higher than the grammatical item. It can be concluded that the lexical density of a text does not depend on the length of the text.

In general, the average lexical density score on reading text in English textbook grade eleventh was 51.68% which was categorized as less dense (quite lexical density). This is in line with Dian Sari, which stated that generally senior high school textbooks have a lexical density of an average index of 51% (quite lexical density).⁹⁹ Based on the theory of Ure, it was predicted that students could understand the texts.

After analyzing lexical density of the text, then the researcher analyzed the readability and the grade level of the reading texts using Flesch Reading Ease Formula by Rudolf

⁹⁶ Victoria Johansson, *Lexical Diversity and Lexical Density in Speech and Writing: a Developmental Perspective* (Lund University, Dept. of Linguistic and Phonetics, Working Papers 53, 2008), 65.

⁹⁷ Dian Sari, "Measuring Quality of Reading Materials in English Textbook: the Use of Lexical Density Method in Assessing Complexity of Reading Materials of Indonesias's Curriculum-13 (K13) English Textbook," *Journal of Applied Linguistics and Literature* 2, No. 2 (2016), 31.

⁹⁸ M. A. K. Halliday, *Language and Education, ed. Jonathan J. Webster* (New York: Continuum, 2007), 77.

⁹⁹ Dian Sari, "Measuring Quality of Reading Materials in English Textbook....," 35.

Flesch. The researcher found that there were five levels of text. The results can be seen as below:

1. 5th Grade (Very Easy Level)

In the 11th grade English textbook, there was only one text which was categorized as very easy level. The text was text 6 (The Enchanted Fish) with a readability score of 90,78. Based on the Flesch Reading Ease Score, text with a range score of 90-100 was categorized as very easy text, and it was created for 5th grade in elementary school.¹⁰⁰ Moreover, text 6 had a lexical density score of 46.54% or low lexical density. It can be assumed that this text is easily understood by students in senior high school.

2. 6th Grade (Easy Level)

In the 11th grade English textbook, there was only one text which was categorized as easy level. The text was text 10 (The Last Leaf) with a readability score of 85,54. Based on the Flesch Reading Ease Score, text with a range score of 80-89 was categorized as easy text, and it was created for 6th grade in elementary school.¹⁰¹ Furthermore, text 10 had a lexical density score of 52,79%, indicating that it was quite lexical dense. It can be assumed that this text is easily understood by students in senior high school.

3. 7th Grade (Fairly Easy Level)

In the 11th grade English textbook, there were 3 texts which were categorized as fairly easy level. These texts were text 3, text 5, and text 9. Text 3 (Personal Letter) which had a readability score of 74,43 and a lexical density of 49,07% or low lexical density. Text 5 (How Volcanos are Formed) had a readability score of 72,19 and a lexical density of 51,77% or quite lexical density. And text 9 (Letter to God) had a readability

¹⁰⁰ William H. DuBay, *The Principles of Readability* (California: Costa Mesa, 2004), 21.

¹⁰¹ William H. DuBay, *The Principles of Readability*, 21.

score of 79,97 and a lexical density of 48,99% or low lexical density. Based on the Flesch Reading Ease Score, text that had a readability range score of 70-79, was categorized as a fairly easy text and created for 7th grade in junior high school.¹⁰² It was predicted that students in grade 11th senior high school would understand these texts quite easily.

4. 10-12 Grade (Fairly Difficult Level)

In the 11th grade English textbook, there were 4 texts which were categorized as fairly difficult level. These texts were text 2, text 4, text 7, and text 8. Text 2 (Banning of Motorbikes) which had a readability score of 53,22 and a lexical density of 54,77% or quite lexical density. Text 4 (Earthquakes) had a readability score of 54,05 and a lexical density of 57,65% or quite lexical density. Text 7 (Bullying) had a readability score of 56,60 and a lexical density of 50.39% or guite lexical density. And text 8 (President Sukarno) with a readability score of 59,03 and a lexical density of 50,20% or quite lexical density. Based on the Flesch Reading Ease Score, text that had a readability range score of 50-59, was categorized as a fairly difficult text and created for 10th-12th grade in senior high school.¹⁰³ It could be concluded that these texts were readable and match for senior high school grade eleventh.

5. Collage (Difficult Level)

In the 11th grade English textbook, there were 2 texts which were categorized as difficult level. These texts were text 1 and text 11. Text 1 (Global Warming) which had a readability score of 48,30 and a lexical density of 54,04% or quite lexical density. And text 11 (Life and Times of Ki Hajar Dewantara) had a readability score of 34,31 and a lexical density of 52,32% or quite lexical density. Based on the Flesch Reading Ease Score, text that had a readability range

¹⁰² William H. DuBay, The Principles of Readability, 21.

¹⁰³ William H. DuBay, *The Principles of Readability*, 21.

score of 30-49 was categorized as difficult text and suggested for college students.¹⁰⁴ Therefore, it was predicted that these texts were difficult but also challenging for students in grade eleventh to understand the texts.

It can be interpreted that the higher text with a lower readability score than others will make the text more difficult to understand. On the other hand, a text with a higher readability score than others would be easier for students to understand. Because a piece of writing with a higher score (on a scale of 0-100) is more readable.¹⁰⁵

According to the Rudolf Flesch's theory, the researcher found that of the 11 texts in the English textbook grade eleventh, there were only 4 texts, they were text 2, text 4, text 7, and text 8, which correspond to the grade level for senior high school level. If we look at table 4.4, the average readability score was 64,40 or in the standard level category. And the average lexical density score was 51,68% or quite lexical density. Therefore, it can be said that the reading texts in this textbook were appropriated for 8th-9th grade junior high school and these reading texts should be easy enough to understand for students in grade 11 senior high school.

However, this can be a problem for students because the readability of the text is not suitable for them. There are some texts that are too easy for students in grade eleven and some texts are too difficult for them. Therefore, the role of the teacher is very important in determining the right strategy and method to help students comprehend the reading texts. The teacher has to be creative if the material is not readable and not suitable for students.

From the results of the analysis above, it was known that the lexical density index did not really match the level of readability. Lexical density can be varied in each readability score range. For example, text 3 and text 5 had the same level in the fairly easy categories and were suggested for 7th grade

¹⁰⁴ William H. DuBay, The Principles of Readability, 21.

¹⁰⁵ Alan Bailin and Ann Grafstein, *Readability: Text and Context* (Macmillan: Hofstra University, 2016), 36.

junior high school. However, text 3 was classified as having a low lexical density, while text 5 was classified as quite lexical density (Table 4.4). Furthermore, text 4 had the highest lexical density score with 57.65%, while the most difficult text was found in text 11 with a 34.31 readability score. Therefore, it can be said that the higher text levels did not always drive up lexical density scores. In general, lexical density and readability did not significantly change as text levels increased in this study's corpus.

This is also supported by Vinh To's study. The lexical density index in their analysis did not match the text level of readability. They stated that lexical density does not always change according to the difficult level of the text set.¹⁰⁶



¹⁰⁶ Vinh to et.al, "Lexical Density and Readability: A Case Study of English Textbooks," *Internet Journal of Language, Culture and Society* 37(2013), page. 66.