

CHAPTER IV

RESEARCH FINDINGS

This chapter presents the data presentation and research finding. In data presentation, the researcher presents all the data collected about the readability text by using Flesch Ease Scale Formula and Flesch Kincaid Grade Level Formula which has been stated in the previous chapter. While in research finding, the researcher presents the data based on the results of data analysis.

A. Research Finding

This research presents the results of the readability level of English reading texts tested by using *Flesch Reading Ease Scale formula* and *Flesch Kincaid Grade Level formula* for testing the textbook entitled “*Forward an English (Course for Vocational School Students Grade XI)*”. The textbook published by Erlanga in 2017 written by by Shyla K, Lande and Eka Mulya Astuti and printed by PT Gelora Aksara Pratama. The textbook consist of 170 pages and 9 chapters which the whole contents represent the basic competence of the syllabus for the eleventh grade of vocational school. In presenting the data, the first step that was done by the researcher was by counting the sentence, words, the syllables, and counting all of them by using *Flesch Reading Ease Scale formula* and *Flesch Kincaid Grade Level formula*.

In presenting of the data, there are some steps that must to do; (1) *counting the words, sentences, and syllable*, (2) *look for the Average Sentence Length (ASL) and the Average Number of Syllables*, and (3) *measuring the readability of text score based on Flesch Ease Readability Formula and Flesch Kincaid Grade Formula*.

1. The Words, Sentences, and Syllables

In this case, counting the words, sentence, and syllables is the reading text in the textbook to find the readability level. In counting words, sentence, and syllables, the researcher used <https://www.wordcalc.com> to make easier and accurate in counting them. The step to use the website is by copying then pasting the reading text into the website. After that, the result of counting the words, sentence and syllable will automatically appear. The results of counting them presented in table 4.1.

Table 2.2 The Interpretation of Calculating Words, Sentences and Syllables

The Tittle of Reading Text	Number of Words	Number of Sentence	Numer of Syllables
Fast Food	181	15	295
Smoking Ban in Public Places	228	13	378
Playing Extreme Sports	412	25	708
Why Do We Need Enough Sleep?	355	30	550
Public Transport is a Real Winner	260	17	376
Text A	237	12	371
Text B	304	15	602
Making Flat Glass	186	12	272
Text C	244	8	433
How Does the Water Cycle Work?	209	15	308
Should We Wear a Protection When We are Under the Sun?	446	31	737
Text D	260	12	382
Text E	146	9	210

2. The Average Sentence Length (ASL) and The Average Number Of Syllables (ASW)

Finding the result in counting the Average Sentence Length (ASL) and the Average Number of Syllables (ASW) is one of the steps to know the readability level of a text. The Average Sentence Length (ASL) is obtained by dividing the number of words with the number of sentences of the reading text, while the Average Number Of Syllables (ASW) is known by dividing the number of syllables with the number of words reading texts. The calculation of the Average Sentence Length (ASL) and the Average Number of Syllables (ASW) are presented in table 4.2.

Table 2.3 The Interpretation of Calculating the Average Sentence Length (ASL) and the Average Number of Syllables (ASW)

The Tittle of Reading Text	The Average Sentence Length (ASL)	The Average Number of Syllables (ASW)
Fast Food	12.07	1.62
Smoking Ban in Public Places	17.53	1.65
Playing Extreme Sports	16.48	1.71
Why Do We Need Enough Sleep?	11.83	1.54
Public Transport is a Real Winner	15.29	1.44
Text A	19.75	1.56
Text B	20.26	1.98
Making Flat Glass	15.5	1.46
Text C	30.5	1.77
How Does the Water Cycle Work?	13.93	1.47
Should We Wear a Protection When We are Under the Sun?	14.38	1.65
Text D	21.67	1.46
Text E	16.22	1.43

3. The Readability of Text Scores

In this part, the description about the counting of the readability scores by using Flesch reading ease scale formula and Flesch Kincaid grade formula. This data answer the research question proposed earlier.

a. Flesch Reading Ease Scale Formula

1) Fast Food

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.62) - (1.015 \times 12.07) \\
 &= 206.835 - (137.052) - (12.25) \\
 &= 57.533
 \end{aligned}$$

The finding of the result shows that the reading text entitled “**Fast Food**” categories into “**Fairly Difficult**” reading text level based on the 30-50 categories of reading ease scale of the Flesch formula.

2) Smoking Ban in Public Places

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.65) - (1.015 \times 17.53) \\
 &= 206.835 - (126.9) - (17.79) \\
 &= 62.145
 \end{aligned}$$

The finding of the result shows that the reading text entitled “**Smoking Ban in Public Places**” categories into “**standard**” reading text level based on the 60-70 categories of reading ease scale of the Flesch formula.

3) **Playing Extreme Sports**

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.71) - (1.015 \times 16.48) \\
 &= 206.835 - (144.66) - (16.72) \\
 &= 44.62
 \end{aligned}$$

The finding of the result shows that the reading text entitled **“Playing Extreme Sports”** categories into **“Difficult”** reading text level based on the 30-50 categories of reading ease scale of the Flesch formula.

4) **Why Do We Need Enough Sleep?**

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.54) - (1.015 \times 11.83) \\
 &= 206.835 - (130.284) - (12.007) \\
 &= 64.544
 \end{aligned}$$

The finding of the result shows that the reading text entitled **“Why Do We Need Enough Sleep?”** categories into **“Standard”** reading text based on the 60-70 categories of reading ease scale of the Flesch formula.

5) **Public Transport is a Real Winner**

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.44) - (1.015 \times 15.29) \\
 &= 206.835 - (121.824) - (15.519) \\
 &= 69.492
 \end{aligned}$$

The finding of the result shows that the reading text entitled **“Public Transportation is a Real Winner”** categories into **“Standard”** reading text level based on the 60-70 categories of reading ease scale of the Flesch formula.

6) Text A

$$\begin{aligned} RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\ &= 206.835 - (84.6 \times 1.56) - (1.015 \times 19.75) \\ &= 206.835 - (131.976) - (20.046) \\ &= 54.813 \end{aligned}$$

The finding of the result shows that the reading text entitled **“Text A”** categories into **“Fairly Difficult”** reading text level based on the 50-60 categories of reading ease scale of the Flesch formula.

7) Text B

$$\begin{aligned} RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\ &= 206.835 - (84.6 \times 1.98) - (1.015 \times 20.26) \\ &= 206.835 - (167.508) - (20.563) \\ &= 18.764 \end{aligned}$$

The finding of the result shows that the reading text entitled **“Text B”** categories into **“Very Difficult”** reading text level based on the 0-30 categories of reading ease scale of the Flesch formula.

8) Making Flat Glass

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.46) - (1.015 \times 15.5) \\
 &= 206.835 - (123.516) - (15.732) \\
 &= 67.587
 \end{aligned}$$

The finding of the result shows that the reading text entitled “**Making Flat Glass**” categories into “**Standard**” reading text level based on the 60-70 categories of reading ease scale of the Flesch formula.

9) Text C

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.77) - (1.015 \times 30.5) \\
 &= 206.835 - (149.742) - (30.957) \\
 &= 26.136
 \end{aligned}$$

The finding of the result shows that the reading text entitled “**Text C**” categories into “**Very Difficult**” reading text level based on the 0-30 categories of reading ease scale of the Flesch formula.

10) How Does the Water Cycle Work?

$$\begin{aligned}
 RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\
 &= 206.835 - (84.6 \times 1.47) - (1.015 \times 13.93) \\
 &= 206.835 - (124.362) - (14.138) \\
 &= 68.335
 \end{aligned}$$

The finding of the result shows that the reading text entitled “**How Does the Cycle Work**” categories into “**Standard**” reading text level based on the 60-70 categories of reading ease scale of the Flesch formula.

11) Should We Wear a Protection When We are Under the Sun?

$$\begin{aligned} RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\ &= 206.835 - (84.6 \times 1.65) - (1.015 \times 14.38) \\ &= 206.835 - (139.59) - (14.59) \\ &= 52.655 \end{aligned}$$

The finding of the result shows that the reading text entitled “**Should We Wear a Protection When We are Under the Sun?**” categories into “**Fairly Difficult**” reading text level based on the 50-60 categories of reading ease scale of the Flesch formula.

12) Text D

$$\begin{aligned} RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\ &= 206.835 - (84.6 \times 1.46) - (1.015 \times 21.67) \\ &= 206.835 - (123.516) - (21.995) \\ &= 61.324 \end{aligned}$$

The finding of the result shows that the reading text entitled “**Text D**” categories into “**Standard**” reading text level based on the 60-70 categories of reading ease scale of the Flesch formula.

13) Text E

$$\begin{aligned} RE &= 206.835 - (84.6 \times ASW) - (1.015 \times ASL) \\ &= 206.835 - (84.6 \times 1.43) - (1.015 \times 16.22) \end{aligned}$$

$$= 206.835 - (120.978) - (16.463)$$

$$= 69.394$$

The finding of the result shows that the reading text entitled “**Text E**” categories into “**Standard**” reading text level based on the 60-70 categories of reading ease scale of the Flesch formula.

b. Flesch Kincaid Grade Formula

1) Fast Food

$$FKGL = (11.8 \times ASW) + (0.39 \times ASL) - 15.59$$

$$= (11.8 \times 1.62) + (0.39 \times 12.07) - 15.59$$

$$= (19.116) + (4.707) - 15.59$$

$$= 8.233$$

Based on the result by using Flesch Kincaid grade formula, the score of “**fast Food**” reading text was 8.233, which means that it was suitable for the “**8th - 9th grade students**”.

2) Smoking Ban in Public Area

$$FKGL = (11.8 \times ASW) + (0.39 \times ASL) - 15.59$$

$$= (11.8 \times 1.65) + (0.39 \times 17.53) - 15.59$$

$$= (19.47) + (6.836) - 15.59$$

$$= 10.716$$

Based on the result by using Flesch Kincaid grade formula, the score of “**Smoking Ban in Public Area**” reading text was 10.716, which means that it was suitable for the “**10th - 11th grade students**”.

3) **Playing Extreme Sports**

$$\begin{aligned}
 FKGL &= (11.8 \times ASW) + (0.39 \times ASL) - 15.59 \\
 &= (11.8 \times 1.71) + (0.39 \times 16.48) - 15.59 \\
 &= (20.178) + (6.427) - 15.59 \\
 &= 11.015
 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“Playing Extreme Sports”** reading text was 11.015, which means that it was suitable for the **“11th - 12th grade students”**.

4) **Why Do We Need Enough Sleep?**

$$\begin{aligned}
 FKGL &= (11.8 \times ASW) + (0.39 \times ASL) - 15.59 \\
 &= (11.8 \times 1.54) + (0.39 \times 11.83) - 15.59 \\
 &= (18.172) + (4.613) - 15.59 \\
 &= 7.195
 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“Why Do We Need Enough Sleep?”** reading text was 7.195, which means that it was suitable for the **“7th - 8th grade students”**.

5) **Public Transport is a Real Winner**

$$\begin{aligned}
 FKGL &= (11.8 \times ASW) + (0.39 \times ASL) - 15.59 \\
 &= (11.8 \times 1.44) + (0.39 \times 15.29) - 15.59 \\
 &= (16.992) + (5.963) - 15.59 \\
 &= 7.365
 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“Publis Transport is a Real Winner”** reading text was 7.365, which means that it was suitable for the **“7th - 8th grade students”**.

6) Text A

$$\begin{aligned} \text{FKGL} &= (11.8 \times \text{ASW}) + (0.39 \times \text{ASL}) - 15.59 \\ &= (11.8 \times 1.56) + (0.39 \times 19.75) - 15.59 \\ &= (18.408) + (7.702) - 15.59 \\ &= 10.52 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“Text A”** reading text was 10.52, which means that it was suitable for the **“10th - 11th grade students”**.

7) Text B

$$\begin{aligned} \text{FKGL} &= (11.8 \times \text{ASW}) + (0.39 \times \text{ASL}) - 15.59 \\ &= (11.8 \times 1.98) + (0.39 \times 20.26) - 15.59 \\ &= (23.364) + (7.901) - 15.59 \\ &= 15.675 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“Text B”** reading text was 15.675, which means that it was suitable for the **“College Students”**.

8) Making Flat Glass

$$\begin{aligned}
 FKGL &= (11.8 \times ASW) + (0.39 \times ASL) - 15.59 \\
 &= (11.8 \times 1.46) + (0.39 \times 15.5) - 15.59 \\
 &= (17.228) + (6.045) - 15.59 \\
 &= 7.683
 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“Making Flat Glass”** reading text was 7.683, which means that it was suitable for the **“7th - 8th grade students”**.

9) Text C

$$\begin{aligned}
 FKGL &= (11.8 \times ASW) + (0.39 \times ASL) - 15.59 \\
 &= (11.8 \times 1.77) + (0.39 \times 30.5) - 15.59 \\
 &= (20.886) + (11.895) - 15.59 \\
 &= 17.191
 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“Text C”** reading text was 17.191, which means that it was suitable for the **“College students”**.

10) How Does the Water Cycle Work?

$$\begin{aligned}
 FKGL &= (11.8 \times ASW) + (0.39 \times ASL) - 15.59 \\
 &= (11.8 \times 1.47) + (0.39 \times 13.93) - 15.59 \\
 &= (17.346) + (5.432) - 15.59 \\
 &= 7.188
 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of **“How Does the Water Cycle Work?”** reading text

was 7.188, which means that it was suitable for the “7th - 8th grade students”.

11) Should We Wear a Protection When We are Under the Sun?

$$\begin{aligned} \text{FKGL} &= (11.8 \times \text{ASW}) + (0.39 \times \text{ASL}) - 15.59 \\ &= (11.8 \times 1.65) + (0.39 \times 14.38) - 15.59 \\ &= (19.47) + (5.608) - 15.59 \\ &= 9.488 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of “**Should We Wear a Protection When We are Under the Sun?**” reading text was 9.488, which means that it was suitable for the “9th - 10th grade students”.

12) Text D

$$\begin{aligned} \text{FKGL} &= (11.8 \times \text{ASW}) + (0.39 \times \text{ASL}) - 15.59 \\ &= (11.8 \times 1.46) + (0.39 \times 21.67) - 15.59 \\ &= (17.228) + (8.451) - 15.59 \\ &= 10.089 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of “**Text D**” reading text was 10.089, which means that it was suitable for the “10th - 11th grade students”.

13) Text E

$$\begin{aligned} \text{FKGL} &= (11.8 \times \text{ASW}) + (0.39 \times \text{ASL}) - 15.59 \\ &= (11.8 \times 1.43) + (0.39 \times 16.22) - 15.59 \\ &= (16.874) + (6.325) - 15.59 \\ &= 7.609 \end{aligned}$$

Based on the result by using Flesch Kincaid grade formula, the score of “Text E” reading text was 7.609, which means that it was suitable for the “7th - 8th grade students”.

B. Finding of the Data

To make easier in interpret the finding of the data, the researcher summarized the calculating readability of reading text in the English textbook entitled “*Forward an English (Course for Vocational School Students Grade XI)*” by using Flesch ease scale formula and Flesch kincaid grade formula in the form of table and categories into several level.

Table 4.3 The Interpretation of Calculating the Readability Level by Using Flesch Ease Scale Formula

The Tittle of Reading Text	The Readability Score	Score Level	Categories Level	Estimated Reading Grade
Text B	18.764	0 – 30	Very Difficult	College Graduate
Text C	26.136			
Playing Extreme Sports	44.62	30 – 50	Difficult	13 th – 16 th grade (College)
Fast Food	57.533	50 – 60	Fairly Difficult	10 th – 12 th
Text A	54.813			
Should We Wear a Protection When We are Under the Sun?	52.655			
Smoking Ban in Public Places	62.145	60 – 70	Standard	8 th - 9 th Grade
Why Do We Need Enough Sleep?	64.544			
Public Transport is a Real Winner	69.492			
Making Flat Glass	67.587			
How Does the Water Cycle Work?	68.335			
Text D	61.324			
Text E	69.394			

Based on the table 4.3, there are four categories that the researcher found based on the readability level by using Flesch ease scale formula. The description as follows:

1. There are 2 texts categories into “Very Difficult” reading text in the level score 0 – 30 which score are “*Text B*” has result 18.7 and “*Text C*” has 26.1.
2. “*Playing extreme Sports*” categories into “Difficult” reading text in the level 30 – 50 and the readability score is 44.6
3. There are 3 texts in the reading ease score of 50 – 60 that categories into “Fairly Difficult”, those are “*Fast food, Text A and Should We Wear a Protection When We are Under the Sun?*”. The result of *Fast food* reading text has 57.5, *Text A* has 54.8, and *Should We Wear a Protection When We are Under the Sun?* has 52.6
4. There are 7 reading text in the average score 60-70 and categories into “Standars” reading text. The reading text itself those are *Smoking Ban in Public Places* that has 62.1, *Why Do We Need Enough Sleep?* has 64.5, *Public Transport is a Real Winner* has 69.4, *Making Flat Glass* has 67.5, *How Does the Water Cycle Work?* has 68.3, *Text D* has 61.3, and *Text E* has 69.3.

**Table 4.4 The Interpretation of Calculating the Readability Level
by Using Flesch Kincaid Grade Formula**

The Tittle of Reading Text	The Readability Score	Estimated Reading Grade
Why Do We Need Enough Sleep?	7.1	7 th – 8 th
Public Transport is a Real Winner	7.3	
Making Flat Glass	7.6	
How Does the Water Cycle Work?	7.1	
Text E	7.6	
Fast Food	8.2	8 th – 9 th
Should We Wear a Protection When We are Under the Sun?	9.4	9 th – 10 th
Smoking Ban in Publis Places	10.7	10 th – 11 th
Text A	10.5	
Text D	10.08	
Playing Extreme Sports	11.01	11 th – 12 th
Text B	15.6	College
Text C	17.1	