An Analysis on Readability Level of English Reading Texts
for Eighth Grade Students

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Abstract

Selecting appropriate textbook for the students is important because textbook has dominant role in the success of foreign language teaching and learning. The purpose this article is to analyze the readability level of English reading texts with Flesch-Kincaid Readability Formula. There were eight reading texts that will be analyzed in this qualitative study. The data and source of data of this research were adopted from an English textbook entitled Pathway to English 2 Textbook for the Eighth Grade of Junior High School Students Published by Erlangga. The results reveal that only 1 text was appropriate for seven or eight grade of Junior High School students. There were 6 texts appropriate elementary students. And there was 1 text suitable for Senior High School students. Based on the result of calculating the readability level only one text from eight texts are relevant to the eighth grade students of Junior High School.

Key Words*: analysis, readability level, texts*

Analisis Tingkat Keterbacaan Teks Bahasa Inggris
untuk Siswa Kelas VIII

Abstrak

Memilih buku teks yang sesuai untuk siswa adalah penting karena buku teks memiliki peran dominan dalam keberhasilan pengajaran dan pembelajaran bahasa asing. Tujuan artikel ini adalah untuk menganalisis tingkat keterbacaan teks bahasa Inggris dengan Flesch-Kincaid Readability formula. Ada delapan teks bacaan yang akan dianalisis dalam penelitian kualitatif ini. Data dan sumber data penelitian ini diadopsi dari buku teks bahasa Inggris berjudul Pathway to English 2 Textbook untuk Siswa Kelas VIII SMP yang diterbitkan oleh Penerbit Erlangga. Hasilnya mengungkapkan bahwa hanya 1 teks yang sesuai untuk kelas tujuh atau delapan siswa SMP. Ada 6 teks yang sesuai untuk siswa sekolah dasar, dan ada 1 teks yang cocok untuk siswa SMA. Berdasarkan hasil penghitungan tingkat keterbacaan, hanya satu teks dari delapan teks yang relevan dengan siswa kelas delapan SMP.

Kata Kunci*: analisis, tingkat keterbacaan, teks*

1. INTORDUCTION

Textbooks are used principally because they are prepared according to a certain organization in compliance the Ministry of National Education's programme. They are one of the most important resources in planned and programmed education studies. The students' ability to follow textbooks is very important since textbooks play a significant role not only in determining the purpose and plan of a lesson, but also in assisting classroom activities by presenting and organizing the content in accordance with the curriculum, and in making the learning process more attractive for students. Due to this, it is important that textbooks used by students and teachers should be reviewed and analysed from several perspectives.

In Indonesia, many textbooks are produced to support English language teaching and learning. There are textbook that published by the Ministry of Education and Culture (*Kementerian Pendidikan dan Kebudayaan (Kemendikbud)*, there are also textbooks that are published by public or private publishers. These textbooks can be used as additional materials by the teachers. Teachers and schools need to choose and select suitable textbooks for their students in order to match the level and students' learning needs because the suitability of textbooks and students' reading level will help students in comprehending the reading texts well.

Furthermore, selecting textbooks carefully is important because textbooks have dominant role in the success of foreign language teaching and learning. Textbooks are used as a guideline by teachers to meet students' need, especially in reading

comprehension. Therefore, the effect of choosing unsuitable textbook can cause students' low achievement in reading comprehension because there is no suitability between the textbook and the students' reading level.

To support the selection of suitable textbook, teachers need to consider three points of view in selecting text for reading material. They are readability, suitability of content, and exploitability. Readability is the degree to which a text is matched to its intended and actual reader. Thus, readability becomes one of the points that make the selection of reading materials is important. This also deals with the statement that in the English language teaching and learning, teachers have a role as the ones who provide materials, not the ones who create them. Therefore, teachers have an important role in textbook selection.

In addition, readability of texts has to be analyzed in order to see their level of suitability. Many researchers believe that reading difficulty relates to the reading materials at the beginning of the readability study. This statement implies that students' assumption about the difficulty of a text relates to the text itself.

Based on the writer and her friends' experience in doing teaching and learning process, they found that there were many students who gained low score in reading. It was caused by their low understanding of the reading texts. In many classes, they found that there were some students who understood the reading texts while others did not. Thus, students' low score might be caused by their low understanding of the reading texts.

In relation to the students' understanding of texts, one of the

factors determining students' understanding of a text is text readability. Thus, this becomes the reason that the writer decided to conduct this study on analyzing the readability level of English reading texts in *Pathway to English 2 Te*xtbook for the Eighth Grade of Junior High School Students Published by Erlangga".

The readability of a book depends on whether it is comprehensible and legible for the reader. Readability level depends on the length of the sentences and the complexity of the language used in the book (Soyibo, 1996). Readers use their past knowledge and experiences to generate meaning from a text (Alvermann, 1989). Readability can be expressed both as speed reading and reading comprehension level of the students with respect to the material they are reading. In measuring the readability level of texts in English textbook can be measured by using Flesch-Kincaid formula. The readability of a text depends upon how easily it can be understood by the reader (Fry, 2002).

Since reading became crucial skill, the selection of a good passage became an important thing. Selecting a good passage is not an easy matter. There are some aspects should be considered. Nuttall (1982:25-31) mentions there are three points of view in selecting a text as follow:

a. Readability, namely the combination of structural and lexical (i.e. vocabulary) difficult,
b. Suitability of content that a text should be able to interest the greatest number of students and will not actually bore them,
c. Exploitability, it means facilitation of learning. When a teacher exploits a text, s/he makes competence as readers.

It can be synthesized that criteria of good text can be seen from the readability, not only structural and lexical difficult but also on the interestingness of the text for the readers. An exciting text will carry the readers to read it more and more than a dull text will carry the readers to read it more than a dull text that is not likely to contribute them to the development of reading competence.

In the selection of text one should not only pay attention to the degree of L2 proficiency the learners have already attained, and their interests, but also to the degree of difficulty of texts. Selecting a text also need to play attention to student the in appropriate text to them. Several factors that affect the degree of difficulty of texts include words, structures, approaches, and precious knowledge of students. Moreover, Guthrie (2008:10) point out that "the procedure for selecting effective test is simple : identity the reading level of students via standardized reading tests, readable books based on a readability formula or judgments by teacher teams, and match the books with the students".

The concept of readability has been defined in various ways. Dubay (2004:3) defines that "Readability is what makes some texts easier to read that others." It refers to how easy a written text is to read and understand. The readability of a text is a measure of how well and hoe easily a text conveys the intended meaning to a reader. This implies that when a text cannot be well read and not easily understood it is unreadable. Good

writing should be highly readable in order to be clearly understood by a wide audience. Readability has the interaction between writers and readers as its central concern as well, in fact, readability research looks exclusively and specially at how readers and writers interact in a text, and it examines ways to enhance and improve factors which connect reader and writer in a text.

In addition, Harjasujana and Vismaia S. Damianti cited from sri Handayani (2014) said that readability is a measurement of the suitability of a particular reading for readers to rank certain readers. In means that readability is an attempt to match the reading with understanding level of the reader. The purpose of readability itself is to find out the right fit between students reading ability determine the successful of learners to get a good comprehension in reading and it also determines the students' ability to understanding and obtain meaning from the textbooks.

Furthermore, according to George Klare cited in Dubay (2004:3), stated that readability is "the ease of understanding or comprehension due to style, in contrast to factors like format, features of organization and content. The basic process in these readability tests involves counting the number of some combination of syllables, words, sentences and paragraphs to estimate the difficulty of the language level used. The average length of sentence and the average syllables per word are the most important variables to determine readability levels.

Daniel Kasule (2011) also added that "textbook readability implies assessing readability chapter by chapter." It means that readability determine the quality of a textbook

itself. Knowing readability level of a particular text helps us to predict how much suitable the texts are for the readers. It is a concept associated with every written text.

Thus, form the definitions above can be concluded that the readability of the text relates to how easily human readers can process and understand a text as the writer of the text intended. In other words, readability refers to the general difficulty level of written material which can affect readers' comprehension. Therefore, it is one of the factors that determine the understanding of a subject by the students.

Gray and Leary, cited in Dubay (2004:18) identify four factors that affect readability. Firstly, content. In content, there are some aspects that should be considered. They are propositions, organization, and coherence. A good content should have a good proposition, organization and coherence in a text to make a reader easier to understand the meaning of a text. Secondly, style. Dubay (2004) showed that the best predictors of textual difficulty were two aspect of style, namely: semantic content (e.g. of vocabulary) and syntactic structure (e.g. sentence length). Syntactic structure can be determined using readability formulas which are strictly text-based. The view of reading is not as an author-based factors regarding readability. Not all these factors are quantifiable; for example factors related to communicating meaning such as legibility are non-quantifiable. Thirdly, design. In design including typography, format, and illustrations of a text, they are very determining the readability of a textbook. There are some factors influence to make a good

design, that is : selecting the right typeface, choose a legible a type size, emphasizing text, consider the suitable layout like think carefully about white space, column width, line spacing, and paragraph length, etc. The last is structure. Readability considers a structure in a text, such as chapters, heading, and also navigation. There is a standard to make a good test so that easier student to get a meaning and avoid misunderstanding. Because a reader will more interest to read a passage if it is fulfills a standard structure in the chapter, heading, and navigation.

There are many readability formulas used to measure the readability level of the written material, but some of them are better known and more popular. One of them is Flesch Readability Formula.

A Flesch readability formula is considered one of most accurate readability formulas. It was developed by Rudolph Flesch in 1948. This formula is a simple approach to assess the grade level of the reader. It is also one of the few accurate measures around that we can rely on without too much scrutiny. There are two kind of readability formula, namely Flesch Reading Ease and Flesch Kincaid.

According to Chall and Klare cited from Dubay (1990:58) Flesch's Reading Ease formula became the most tested and reliable. The computation involves only the counting of syllables, words, and sentence. The formula is the best combination of simplicity and meaningfulness. Moreover, Flesch readability formula is the best and appropriate on school text of reading passage written in English, whereas the other formulas are practical and can be used for other written form, for

example newspaper, articles, and journalism.

Another formula of Flesch is Flesch Kincaid. It is a modification formula from Reading Ease formula. In 1976, a study commissioned by the U.S. navy modified the Reading Ease formula to produce a grade-level score.

1.1 Flesch Reading Ease

Flesch Reading Ease is a simple formula to assess the grade level of the reader. It is one of the few accurate measures around that we can rely on without too much scrutiny. This formula developed by the pioneering Rudolf Flesch. It was recalculated to give a grade-level score. In the Flesch Reading Ease test, higher scores indicate material that's easier to read, lower scores more difficult.

Flesch readability formula measures length: the longer the words and sentence, the harder the passage to read. Like most of readability formulas, it involves the sampling of 100-word sample. Based on the Flesch, there are three direction to measure the readability. The first step is count the sentence. Second is count the words, hyphenated words, abbreviation, figure, symbols, and either combination are count as single words. Then, measure with the Fesch readability formula and find the readability level.

1.2 Flesch Kincaid Grade Level

Assessment of text readability is useful to know whether a text is written at level suitable for the target audience. One of the assessments to assess the text is readability formula. Readability formula provide in adjective and easy to calculate means

of quantifying readability (Advaith Siddharthan, 2013 : 137). A readability formula can predict the comprehension, interest aspects. Therefore, there are many readability formula used nowadays, one of them is the Flesch-Kincaid Readability formula. It is one of the most famous readability formulas so far in the history of readability studies. It is calculated by using sentence and word length as variable.

The Flesch Reading Ease Formula is a simple approach to assess the grade-level of the reader. It's also one of the few accurate measures around that we can rely on without too much scrutiny. This formula is best used on school text. It has since become a standard readability formula used by many US Government Agencies, including the US Department of Defense. However, primarily, we use the formula to assess the difficulty of a reading passage written in English.

1.3 The Formula of Flesch Kincaid Readability Test

1.3.1 Flesch Reading Ease Readability Formula

In the Flesch Reading Ease test, highest score indicate material that is easier to read; lower number mark passages that are more difficult to read. The formula of Flesch Reading Ease is:

$RE = 206.835 – (1.015 \times ASL) – (84.6 \times ASW)$

RE = Readability Ease

ASL = Average Sentence Length (i.e., the number of words divided by the number of sentences)

ASW = Average number of syllables per word (i.e., the number of syllables divided by the number of words)

The output, i.e., RE is a number ranging from 0 to 100. The higher the number, the easier the text is to read.

a. Scores between 90.0 and 100.0 are considered easily understandable by an average 5th grader.
b. Scores between 60.0 and 70.0 are considered easily understood by 8th and 9th graders.
c. Scores between 0.0 and 30.0 are considered easily understood by college graduates.

If we were to draw a conclusion from the Flesch Reading Ease Formula, then the best text should contain shorter sentences and words. The score between 60 and 70 is largely considered acceptable. The following range is also helpful to assess the ease of readability in a document:

90 – 100   : Very Easy
80 – 89   : Easy
70 – 79   : Fairly Easy
60 – 69   : Standard
50 – 59   : Fairly Difficult
30 – 49   : Difficult
0 – 29   : Very Confusing

1.3.2 Flesch Kincaid Grade Level

Flesch Grade Level Readability Formula improves upon the Flesch Reading Ease Readability Formula. Rudolph Flesch, an author, writing consultant, and the supporter of Plain English Movement, is the co-author of this formula along with John P. Kincaid. That's why it is also

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called *Flesch-Kincaid Grade Level Readability Test*. Raised in Austria, Flesch studied law and earned a Ph.D. in English from the Columbia University. Flesch, through his writings and speeches, advocated a return to phonics.

The Flesch-Kincaid Grade Level Readability Formula

The following are steps of using Flesch-Kincaid grade level readability formula.

Step 1: Calculate the average number of words used per sentence.
Step 2: Calculate the average number of syllables per word.
Step 3: Multiply the average number of words by 0.39 and add it to the average
number of syllables per word multiplied by 11.8.
Step 4: Subtract 15.59 from the result.

The specific mathematical formula is:

FKRA = (0.39 x ASL) + (11.8 x ASW) - 15.59

Where,

FKRA = Flesch-Kincaid Reading Age
ASL = Average Sentence Length (i.e., the number of words divided by the number of sentences)
ASW = Average number of Syllable per Word (i.e., the number of syllables divided by the number of words)

Analyzing the results is a simple exercise. For instance, a score of 5.0 indicates a grade-school level; i.e., a score of 9.3 means that a ninth grader would be able to read the document. This score makes it easier for teachers, parents, librarians, and others to judge the readability level of various books and texts for the students.

2. METHOD

The writer used descriptive qualitative analysis method in doing his research, in which he tried to describe, elaborate, an analyze the readability level of reading texts in Pathway to English 2 textbook published by Erlangga.

The data and source of data of this research is adopted from an English textbook entitled Pathway to English 2 Textbook for the Eighth Grade of Junior High School Students Published by Erlangga. This textbook consists of eight units and each unit has reading texts.

In this study, the researcher needs tool to be flexible in collecting data; the main instrument in this research is documentation. The writer used documentation to analyze the readability level of text in the English textbook and the document itself is the sources that are taken from written forms.

The document in this study was an English textbook entitled *Pathway to English 2 T*extbook for the Eighth Grade of Junior High School Students Published by Erlangga, and this study analyzed the readability level of reading text in the English textbook.

The technique to collect the data in this study is by using documentation, and the reading texts available on an English textbook entitle *Pathway to English 2 T*extbook for the Eighth Grade of Junior High School Students Published by

Erlangga . And the steps of collecting data are as follows:

1. Determined the English textbook for Junior high school
2. Identified the reading text on English textbook entitle *Pathway to English 2 Textbook* for the Eighth Grade of Junior High School Students Published by Erlangga.
3. Read the text carefully
4. Counted the number of sentence, words, and syllables in each text.

In this study, the writer used flesch readability formula because the formula is the easier to analyze the English texts, the writer conducted four steps in analyzing the data are as follow:

1. Firstly, the writer selected the text in the textbooks at least 100 words long, then input them to computer in the Microsoft Word
2. After that, analyzed and counted the sentences, words and syllables in each text of reading texts.
3. Measured the readability of each text based on the Flesch readability formula.
4. Described and gave further explanation related to the readability
5. Determined the grade of each of reading text by comparing the result of the score to the other criteria as shown in the readability table, which ones are relevant to junior high school level.

In addition, there is simple way to measure the readability level by using a website of readability formula, namely *www.redabilityformula.com* Below are these steps in using website of readability formula as follows:

1. Open the website namely *www.redabilityformula.com*
2. After that, choose one of readability formulas that you want. There are six kinds of readability formulas, such as the Flesch Reading Ease formula, the Flesch-Kincaid Grade Level, Fog Scale (Gunning FOG Formula), the SMOG index, the Coleman-Liau Index, Automated Readability Index, Linsear Write Formula.
3. Then, click the calculator of each formula. After click the area, will be there is a direction to copy paste the text.
4. After copying paste the text, click check the readability and the formula will work and also showing the text readability automatically, including the number of sentence, words, syllables and characters.
5. Analyze the readability level of texts based on The Grade-level Scores
and The Flesch Reading Ease Score

3. FINDINGS AND DISCUSSION

In analyzing the data, the first step was counting the sentences, the second was by counting the words, the third was by counting the syllables, and counting all of them by using Flesch readability formula.

Findings

Reading text 1 entitled *The Muse Live Concert* has 16 sentences, 119 words, and 162 syllables. Then, reading text 2 has *Alimudin, a Local Footballer* has 19 sentences, 126 words, and 168 syllables. Reading text 3 entitled *Daily activities* has 12 sentences, 106 words, and 141 syllables. The result counting of 15 sentences, 210 words, and 361 syllables belongs to reading text 4 entitled *Louis Pasteur*. Next, reading text 5 entitled *The stingy and the generous* has 20 sentences, 214 words, and 304 syllables. While, in text 6 entitled *The cowardly lion* consist of 21 sentences, 246 words, 314 syllables. In the text 7 entitled *Thomas Alva Edison* consists of 18 sentences, 171 words, 255 syllables. Next, in the 8 entitled *Cats* has 13 sentences, 127 words, 164 syllables.

The following table is the summary of the sentences, words, and syllables counting:

Table 2. Table of Sentences, Words and Syllables Counting

Number of Text	Sentences	Words	Syllables
Text 1	16	119	162
Text 2	19	126	168
Text 3	12	106	141
Text 4	15	210	361
Text 5	20	214	304
Text 6	21	246	314
Text 7	18	171	255
Text 8	13	127	164

From the table 2 above, it can be seen and concluded that all the texts (text 1 up to text 8) have more than 100 words as basic requirement of testing readability level of texts. It means that Flesch-Kincaid readability formula can be used to measure the readability level of texts.

Discussion

The purpose of this research is to analyze the readability level of texts used in teaching reading for VIII grade students of Junior High School. The writer employed a widely used and valid measure to assess the reading grade level of texts used in teaching reading for VII grade students, which is Flesch-Kincaid readability formula.

The result finding of reading text 1 is 81.93 for reading Ease; it means that the text Easy for the description of style because it is in 80 – 90 reading score. And the result finding for Flesch-Kincaid Reading

Age is 3.786. The estimated reading grade is 4 grade and below.

The end result discovering of analyzing text 2 is 87.359 for Reading Ease; it potential that the text is Easy for the description of style because it is in 80 – 89 studying score. And the result finding for Flesch-Kincaid Reading Age is 2.724. The estimated reading grade is 4 grade and below.

The result finding of reading text 3 is 110.044 for Reading Ease; it means that the text is Very Easy for the description of style because it is in 80 – 89 reading score. And the result finding for Flesch-Kincaid Reading Age is 0.44. The estimated reading grade is 4 grade and below.

The result finding of studying text 4 is 45.588 for Reading Ease; it ability that the text is Difficult for the description of style due to the fact it is in 40 – 50 analyzing score. And the end result finding for Flesch-Kincaid Reading Age is 10.59. The estimated analyzing grade is sixteen and above (college graduate).

The end result discovering of studying text 5 is 75.156 for Reading Ease; it capability that the text is Fairly Easy for the description of fashion due to the fact it is in 70 – 80 analyzing score. And the result finding for Flesch-Kincaid Reading Age is 5.56. The estimated reading grade is grade 5-6.

The result finding of reading text 6 is 85.268 for Reading Ease; it means that the text is Easy for the description of style because it is in 80 – 90 reading score. And the result finding for Flesch-Kincaid Reading Age is 4.409. The estimated reading grade is grade 4 and below.

The result finding of reading text 7 is 67.369 for Reading Ease; it means that the text is standard for the description of style because it is in 60 – 70 reading score. And the result finding for Flesch-Kincaid Reading Age is 6.314. The estimated reading grade is grade 7-8.

The result finding of reading text 8 is 85.437 for Reading Ease; it means that the text is Easy for the description of style because it is in 80 – 90 reading score. And the result finding for Flesch-Kincaid Reading Age is 3.951. The estimated reading grade is grade 4 and below.

Overall, the result findings of reading texts from text 1 up to text 8 only one text that suitable for seventh and eighth grade students. It means that 7 texts irrelevant to the students of Junior High School of eighth grade.

4. CONCLUSION

Based on the findings and discussion of the readability level of reading texts in Pathway to English 2 textbook published by Erlangga, it can be concluded that the readability level of reading texts are vary from one text to another. From eight reading texts, there are six texts are easy and appropriate for Elementary School and below. Only one text is appropriate for the seven – eight grade of Junior, and one text is appropriate for Senior High School Students.

In accordance with the conclusion, the suggestions can be given of the following: The readability should be one of the top concerns when teacher use reading texts as teaching material. Readability is the ease with which a reader can understand a written text. It should appropriate to the students level. Teacher should like a tool to check if a given text would be readable by its

intended readers or students. For the writer of English textbooks for eighth grade are suggested to be aware of readability of texts they included into textbook they write; and other researcher are suggested to conduct further research related to findings of this research by employing other readability formula, or other method of readability analysis.

REFERENCES

Alvermann, D. E. 1989. *Teacher-student mediation of content area text*. Theory into Practice, 28(2), 142–147.

Buffett, W. E. 1998. *A Plain English handbook: How to create clear SEC disclosure document.* Washington: Office of Investor Education and Assistance.

C, Umoke C and Dr.Mrs. E, Nwafor C. 2015 *Examination of The Readability Level of Some Approved Science Textbooks in Use in Junior Secondary Schools in Ebonyi State of Nigeria*: British Journal of Education.3 (11). Pp.26-31

Dubay, William H. 2004. *The Principles of Readability*, Costa Mesa: Impact Information

Ernawati, Deni 2013 *An analysis Of The Readability Level Of Reading Texts In Passport To The World 2 Textbook By Using Cloze Test*

Flesch, Rudolf. 1949. The Art of Readable Writing: Harper and Row.

Fry, E. 2002. *Readability versus leveling*. The Reading Teacher, 56, 286–291.

Guthrie, T John. 2008. *Engaging Adolescents in Reading*, California: Corwin Press

Harmer, J. 1991. *The Practice of English Language Teaching*, London: Longman

Handayani, S. 2014. *The Readability of Science: Student's Book for Student's Book for Junior High School Year VIII Viewed From The Lexical and Grammatical Aspects* (A Content Analysis of Science Lesson of Junior High Schools of Surakarta) : International Journal of Linguistics.6 (1). p.12-25

Harrison, C. 2004. *Understanding Reading Development*. London: SAGE Publications Ltd

Langebord, L 2010. *An Analysis of English Textbooks for Swedish School Years 7-9*: English Linguistics.

Keith, B. et al 2014. *Readability of PTA Textbooks and Reading Comprehension Rates of PTA Students*: LARTEM e-Journal.6(1).p.37-47

Nuttal, C.(2000. *Teaching Reading Skills in A Foreign Language* (New Edition). McMillan Heinemann.

Soyibo, K. 1996. *A comparison of communication strategies among three Caribbean high school biology textbooks*. Journal of Biological Education, 30(3), 190–194.