
Text difficulty vs text readability: Students' voices

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Abstract

Reading is an essential skill to be mastered, especially by university students and it is the lecturers' responsibility to train their students to develop their reading skill. In order to do so, lecturers will have to develop materials or choose materials from existing books to be used in the teaching learning process. The text difficulty must be appropriate to the students' English proficiency level. This study was aimed at finding the students' perceptions of the difficulty of the texts used in the reading class and the corresponding text readability. This study utilized the survey design and the content analysis involving 141 second semester students of the English Language Education Department of a state university. Questionnaires were used to get data on students' perceptions of the text difficulty and the text readability was analysed with the help of <https://readabilityformulas.com>. The data on students' perceptions were analysed using percentage while the data on the text readability were analysed using the readability test. The findings showed that there was a difference in the students' perception of the difficulty of the text and the readability level as being calculated using different readability formulas.

Keywords: *Text difficulty; text readability*

INTRODUCTION

Reading is an essential skill and it can give a great impact on students' achievement. Different studies have been conducted in relation to the reading skill, focusing on different aspects, such as the correlation between students' reading anxiety and their reading comprehension (Mardianti et al., 2021), 2021), critical reading discourse to enhance critical thinking skills (Sari & Prasetyo, 2021), an analysis into reading index of prose forms (Gopal et al., 2021), the correlation between students' receptive vocabulary and their reading comprehension (Hartono & Prima, 2021), washback of the performance-based test of reading (Wiyaka, 2020), learners' reading learning in web-based instruction setting (Supriyono, 2018), and students' reading motivation and writing achievement (Ilahiyah et al., 2019).

Several studies have been conducted in relation to the readability of texts. For example, a study conducted by Eslami (2014) focusing on the effect of syntactic simplicity and complexity on the readability of the text. The study involved 257 senior Iranian EFL students divided into three proficiency levels

of high, mid, and low, each taking three different versions of the same text. The findings showed that syntactic complexity created problems for mid and low proficient students but not for high proficient ones.

Another study was conducted by Sultan et al. (2020). The objective was to investigate textbook discourse readability among junior high school students with poor reading ability based on gender, reading interest, and family socio-economic status. The findings showed that there was a significant difference in the textbook discourse readability among students with poor reading ability based on gender, reading interest, and family socio-economic status.

The next study was conducted by Gul (2021) who investigated the readability levels of the texts on the biology units in the science textbook prepared for the sixth grade. A total of 22 texts were randomly selected. The findings showed that the readability of the texts in Unit-2 was medium, while that of the texts in Unit-6 was difficult.

A study conducted by Harden (2018) investigated 30 narrative and 30 expository texts at each grade level (grades 1-5). He compared nine readability indices to analyze the readability levels of the texts. The findings showed that six indices (Flesch-Kincaid Grade Level, Fry Graph, Spache, Gunning Fog, Dale-Chall and Smog provide a construct which is equivalent to a grade level.

Yunita et al. (2017) conducted a study on the readability of report text taken from a textbook used in Senior High Schools entitled *Bahasa Inggris Kelas 11*. This was a qualitative study and the data were collected using observation, interview and documentation. One of the findings showed that the readability of the texts belonged to the difficult level.

Vajjala & Lucic (2019) conducted a study on the relationship between expert annotations of readability, reader's language proficiency, and different levels of reading comprehension. The study involved 100 participants who read texts of different reading levels and answered comprehension questions. The findings showed that the participants had difficulty in answering inferential questions.

Those previous studies focus on the syntactic simplicity and complexity, the textbook discourse readability among students with poor reading ability, the readability of texts in Biology, the comparison of readability indices, and the relationship between expert annotations of readability and different levels of reading comprehension. However, there is no study focusing on the readability level as calculated with the readability formulas and the perceptions of the students reading the texts, whether the texts determined as easy or difficult texts are also perceived the same by the students. Therefore, this study explored the readability of texts calculated with the readability formulas and the students' perceptions of the text difficulty level.

Although experts have different opinions about the term "readability" as stated before, they offer different definitions about readability. The definitions of "readability" is based on their understanding of what is meant by readability. Some experts proposed the definitions of readability as being

related to the ease or difficulty in comprehending texts (Ismail et al., 2016). Another expert, Pikulski (2002), relates readability to the purpose of reading.

One way of knowing whether texts developed or chosen by lecturers match the students' proficiency level is by analysing the text readability. In the last century, readability formulas have been developed by educators and researchers to quantify the degree of difficulty of texts (Benjamin, 2012). These formulas may not be the appropriate measures of the comprehensibility of texts, but these are objective to measure the complexity of texts. For example, the different formulas take into account the number of words, the word concreteness, syntax, coherent devices, word length, and sentence length. Of course, each formula has its own characteristics and it may include different linguistic aspects. From this explanation it is clear that the formulas may not result in the exact information about the comprehensibility of the texts.

The purpose of this study was to find out the students' perception of the difficulty of the texts used in their reading class and the text readability. It is very important to know whether the texts provided to improve students' reading skills actually match the students' proficiency level. Students' reading skills cannot be improved unless the texts used in their reading class are not too far from their proficiency level. Reading cannot take place unless readers can understand what they read (Oakhill & Cain, 2012). The materials for reading must provide an appropriately challenging level for students in order for them to be able to gain meaning from the texts and continue developing their reading skills (Adams, 2009). When the texts are too difficult or too challenging, the students will not be able to comprehend the meaning and it will be difficult for them to develop their reading skill (Allington, 2007).

The questions which were answered through this study were as follows:

1. What is the students' perception of the difficulty of the texts they read in their reading class?
2. What is the readability level of the texts read by students in their reading class?
3. Is there any difference between the students' perception of the difficulty of a text and the result of the readability level as being calculated using different readability formulas?

Reading, learn to read, and reading texts

Reading is a great human achievement. Through reading, people can communicate with others across both time and space. Reading can also be used for gaining new knowledge (Watkins, 2017). Reading is also essential to be successful in school and life (Greany & Neuman, 1990). Students who can read complex texts are more likely to be successful in their academic life or in their career (Moss et al., 2015). Moss et al. use the term "college texts" to refer to texts students typically read as part of college course work.

Reading in universities is often characterized by reading texts included in the coursebooks (Vrastilova, 2018). They are chosen not because they are appropriate to the students' reading ability but because they are related to the

topics in the coursebooks. The topics themselves may also be chosen artificially. That is why some say that reading activities in universities and schools are sometimes not considered as real reading but artificial reading (Duffy, 2009). The students are asked to read a text and then they will have to answer questions related to the text. The questions are not those related to questions readers try to answer in real reading. The weakness of comprehension questions is that a simple question form can ask many things (Nation, 2009). The question can check students' understanding of a word, a phrase, an expression, the main idea, the supporting details, and the reference.

Reading is a skill which cannot be taught only in several meetings in courses (West, 2018). It is not enough for students to develop their reading skill only by reading texts in the reading classes. Lecturers must try to encourage students to go beyond the class time to develop their reading skill. This is sometimes called extensive reading. They can do this, for example, by creating a reading community.

Learning to read is like to learn weightlifting. Learners must start from what they can do comfortably for some time and then they are encouraged to improve their level. In the case of reading, learners learn to read texts which they can read comfortably and then they move to more complex texts until they can comprehend the texts easily (Witter, 2013). Reading is a constantly developing skill (Johnson, 2008). Students can develop their reading skill only by practising. Without practising, it is impossible for them to develop their reading skill. The lecturers provide learners with texts they can read comfortably, guide them with texts which are a little harder, and push their reading ability.

When someone reads a text, he or she does not only try to understand the meaning of each word but he or she will have to understand or comprehend the message as found in the text. Comprehending a text is a great challenge, especially for language learners (Bouchard, 2005). The technical vocabulary found in the text, the different concepts presented in the text, and the structure of the text can be a real challenge for them. The challenge is even greater for second language learners because they are also faced with language barriers. The lack of vocabulary mastery and grammar mastery may be great problems for comprehending texts.

The ability to comprehend a text is not only dependent on the vocabulary mastery and grammar mastery. When a reader reads a text, he or she brings his or her own feelings, personality, and experience to the text (Moreillon, 2007). That is why it is possible for a reader to have different feeling, for example, when he or she reads the same text again and again. It is also possible for someone not to be interested in reading a certain text because he or she does not have any background knowledge about the topic before.

Another point which must be taken into account in learning reading is that there are some goals to be achieved in learning reading, for example developing positive attitudes toward reading and developing personal interest and tastes in reading (Sadoski, 2004). Another goal is that students are not only trained to read texts they have in the reading courses, it is expected that

they will be able to use their reading skill in their future life (Nation, 2009). Therefore, reading is not only trying to comprehend a text but also trying to develop the enjoyment and happiness to do reading.

In addition, the reading activities in reading courses must resemble the activities readers do in real reading. Learners must be provided with tasks which real readers do in life (Duffy, 2009). For example, when real readers want to use a new video game, they read the directions, when real readers want to find information about current events, they read newspapers or magazines.

In order that students are successful in their reading comprehension, teachers will also have to provide them with the materials which match the students' reading abilities. Reading materials which are appropriate with the their reading abilities will provide them with useful practice and they are not too difficult for them, making them frustrated (Chall et al., 1991). That is why it is important for teachers to be able to select materials and evaluate materials related to their readability.

Text evaluation has been a major concern especially in relation to teaching reading. Some efforts have been made about how to evaluate texts and what aspects must be taken into account in evaluating texts. One way of evaluating texts is through the analysis of the readability of the texts. Although the term used is "readability", some experts distinguish it from "comprehensibility". They use the term text complexity (Moss et al., 2015).

Readability formulas

There are some formulas developed by experts to find the readability of texts. The formulas use number of words per sentence, number of letters per word, number of syllables per word, and number of words containing three or more syllables as the main aspect of the evaluation of the readability. Here are some common readability formulas: a) Flesch Reading Ease Formula, b) Fog Readability Formula, c) SMOG Readability Formula, d) Flesch-Kincaid Readability Formula, e) The Coleman-Liau Readability Formula, f) The Automated Readability Formula, and g) The Lensear Write Readability Formula.

METHOD

This study employed the survey design and content analysis. Epistemologically, this study used the interpretive approach as it tries to interpret the data concerning the students' perception of the text difficulty and the readability levels as resulted from the calculation using different readability formulas.

Procedures

The procedures of the study are as follows:

1. The researchers decided to take five lecturers out of eight lecturers to be the sample in the study.

2. The researchers took one text randomly from each lecturer to be analysed.
3. The researchers distributed the questionnaires in the form of google form to the students. They had to provide their perception in relation to the text chosen by the researchers.
4. The researchers collected and analysed the data.
5. The researchers analysed the readability of the texts with the help of <https://readabilityformulas.com>.
6. The researchers compared the data from the students and the result of the analysis using the readability formulas.

Respondents

The respondents of this study included 141 students. They are the students who filled in the google form. They are the second semester students taking the reading course. Here is the number of the students reading each text.

Table 1. Number of students reading each text

No	Title of the text	Number of students reading this text
1	Survival at Sea	15
2	A Young Blind Whiz	33
3	Signs of Ancient Surgery in Ancient Egypt	43
4	Bill Smith - Biography	25
5	Banda Aceh	25

Instruments

The instruments are in the form of questionnaires. These questionnaires were distributed to the students using the google form. There are three questions asked to the students, they are:

1. whether the text they read is easy or difficult
2. whether the text they read is simple or complex
3. whether there are few or many unfamiliar words in the text they read

In addition, the researchers also used the readability formulas as found in <https://readabilityformulas.com>.

Data analysis

There are data from the students and from the texts. The data from the students were analysed using the descriptive statistics while the data from the texts were analysed using the readability formulas.

RESULTS AND DISCUSSION

This study tried to answer three questions, one related to the students' perceptions, another one related to the readability levels of the texts, and one related to the difference between the students' perception of the difficulty of the text and the readability level. In this section, the researchers present the findings of the study.

Students’ perception of the difficulty of the texts they read

Table 2 below presents the percentage of the students’ responses to the question of whether the text they read is difficult or easy.

Tabel 2. The percentage of students’ responses

No	Response	The percentage of students’ responses				
		Text 1	Text 2	Text 3	Text 4	Text 5
1	Difficult		9	4		16
2	Somewhat difficult	36	72	56	33	76
3	Easy	64	19	40	67	8

The percentage of the students’ responses to the question of whether the text they read is complex or simple is presented in Tabel 2 below.

Tabel 3. The percentage of students’ responses

No	Response	The percentage of students’ responses				
		Text 1	Text 2	Text 3	Text 4	Text 5
1	Complex		23	8	7	8
2	Somewhat complex	42	68	76	33	28
3	Simple	58	9	16	60	60
4	Very simple					4

The next question is related to the number of difficult words students find in the text they read. Table 3 below presents the percentage of the students’ responses to this question.

Tabel 4. The percentage of students’ responses

No	Response	The percentage of students’ responses				
		Text 1	Text 2	Text 3	Text 4	Text 5
1	Too many difficult words		9	24		
2	Many difficult words	3	60	44	53	40
3	Some difficult words	42	31	28	47	48
4	A few difficult words	55		4		12

From the data presented in the three tables it can be concluded that texts 2 and 3 were considered as difficult and complex texts and most students found many difficult words in these two texts. The other two texts were considered as easy and simple texts and students did not find many difficult words.

The readability levels of the texts as calculated using the readability formulas

Several readability formulas were used to calculate the readability levels of the texts. The following figure provides a sample of the result of the calculation of one of the texts.

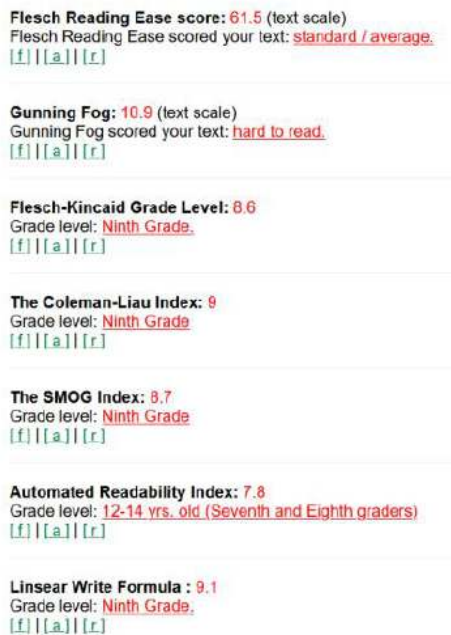


Figure 1. A sample of the result of the calculation using different formulas

Based on the result of the calculation using different formulas, a summary or “consensus” is presented. Here is a sample of the summary or consensus.

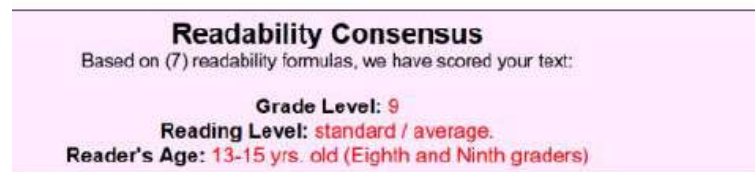


Figure 2. The summary or consensus of the readability level

Table 5 below presents the readability consensus related to the five texts.

Table 5. The readability consensus

No	Remark	Text 1	Text 2	Text 3	Text 4	Text 5
1	Appropriate for grade	8	9	12	7	10
2	Readability level	Relatively easy to read	Standard/average	Difficult to read	Very easy to read	Standard/average

It is interesting to find out that the data presented in Table 5 show that only one text is categorized as a difficult text, that is, text 3. If this is compared with the students' perceptions, this text was perceived as a not-

difficult text by students. It is true that many students perceived this text as containing many difficult words and it was a somewhat complex text. It seems that this finding supports Moss et al. (2015)'s idea that 'readability' is different from 'comprehensibility'. Readers may not be able to comprehend a text that is considered as easily readable. This finding also further supports Eslami (2014)'s finding related to the comprehensibility of the texts by different students of different proficiency levels. Unfortunately, the data in this study did not include the proficiency level of the students so it is not known whether they perceive this text as a not-difficult text because of their high proficiency level or because of some other factors.

Another interesting finding is related to text 5. Students perceived this text as a simple text. Yet, most of the students perceived this text as a difficult text. This is contrary to the findings of the study carried out by Eslami (2014) that complexity created problems for low and medium proficiency level students but not for high proficiency level students.

Another possible explanation of this finding is the relationship between the students' ability to comprehend a text and their experience. Students also bring their experience to the text (Moreillon, 2007). That is why it possible that there can be a difference between the students' perception on the difficulty of the text and the readability level of the same text calculated using different readability formulas. This can be a kind of a reminder for lecturers when they have to select texts to be used in their reading class as simple texts may be considered as difficult texts by their students.

Another important point to discuss is the information about the appropriateness of a certain text with the grade level. The finding of the study conducted by Harden (2018) showed that different readability formulas provide a construct which is equivalent to a grade level. The finding related to text 2 showed that this text is appropriate for students of grade 9. The students involved in this study were the second semester university students. Yet, they perceived the text as a difficult text. A question which can be studied in further research is what factors make the students perceive such a text as a difficult text. Is it because the students reading this text belong to the poor readers as supported by the finding of the study conducted by Sultan et al. (2020)?

Studies by Gul (2021) and Yunita et al. (2017) further support that the readability formulas can be used for determining the readability levels of texts. However, the finding of this study showed that the readability levels of texts as calculated by the readability formulas may be different from the perception of the students reading the texts. Texts which are said to be of the easy readability level by the readability formulas can be perceived as difficult texts by students or texts which are said to be of the difficult readability level can be perceived as easy texts by students.

Further research may also be related to finding out the exact students' comprehension as shown by their ability to answer questions related to the texts. This can further reveal whether the difficulty is related to the text itself or to the questions to reveal the students' ability to comprehend the text. This

is related to the study conducted by Vajjala and Lucic (2019) whose finding showed that participants had difficulty in answering inferential questions.

CONCLUSION

Based on the data presented as the findings of this study, it can be concluded that there can be a difference between the students' perception of the difficulty of a text and the readability level of the text. This is because the formulas used for calculating the readability level do not include aspects within the students such as the students' experience, their familiarity with text or the topic of the text, their grammar mastery, and their vocabulary mastery. The implication of this finding is that lecturers cannot depend solely on the result of the analysis of the readability level. Some other factors need to be taken into account when selecting texts to be used in their reading class.

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