

READABILITY OF TEXTBOOK VS LINUS SCREENING TEXT: IMPLICATION ON YEAR 4 POST LINUS PUPILS

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Abstract

Reading is one of the most important skills that need to be acquired. Due to this the Malaysian government implemented the LINUS programme in school to help pupils master the basic skill involved English. The problems for most LINUS pupils come after they pass their LINUS screening. They were not able to read most materials in the text and read with difficulty. It is hoped that by finding the readability level of the texts in the textbook and the LINUS screening it will shed a light on how teacher could handle the problems. For this study 6 texts; 3 from each the Textbook and LINUS screening respectively was chosen randomly. The texts were calculated using the SMOG, FOG, Flesch-Kincaid and Spache formula to obtain their readability level. Spearman correlation test was conducted to see the consistency between the readability formulas in predicting the difficulty level. It is found that the texts in the textbook is more difficult compared to the LINUS texts.

Keywords: Post LINUS, Textbook, Readability

1. INTRODUCTION

There are four main skills in acquiring a language. These skills are divided into receptive skills and productive skills. Receptive skills are reading and listening while productive skills are writing and speaking. Reading is one of the basic skills that all students need to master. Without reading most of the productive skill will not be able to be used properly. Yunus and Chun (2016) also highlight reading as an important and complex skills. They mentioned that reading is a complex process as it involves processing language messages in written or printed form. They also stress that reading comprehension is crucial for academic success and an important teaching objectives in preschool and primary grades.

In Malaysia emphasized were put on mastering English. It is compulsory for all students to learn English throughout their 11 years of formal schooling. As an added measure to ensure that all students have basic command of English, LINUS programme were introduced for year 1 to year 3 pupils. All pupils in year 1 to year 3 are required to be screened. The subjects involved in the LINUS programme are Bahasa

Malaysia (LBM), Bahasa Inggeris(LBI) and Mathematic. The Screening is held twice a year. The first screening is conducted in the first quarter of the year and the second screening in the fourth quarter. The result of the first screening will used to determine which students needed more guidance in mastering the skills required in the respective subjects. For both LBM and LBI the skills that will be screened were reading, listening and writing. In 2016, LINUS 2.0 were introduced. This programme is specifically for LBI which includes year 4 pupils that did not pass the LBI screening after year 3.

This study aims to explore whether there are any correlation between the readability formulas. Then it will also compare the difficulty level of the texts found in the textbook with the LINUS screening texts. Then the implications of the difference in difficulty level will be discussed in terms of the post LINUS pupils ease in transitioning to mainstream class.

2. LITERATURE REVIEWS

Readability refers to the difficulty of a text. A readable text will greatly influence the readers understanding of the text and comprehend the meaning that the author is trying to convey. There are many definitions for the terms readability. Dale and Chall (1949) refer to it as how far can a reader understand a texts while reading at an ideal pace and still find the materials interesting. Klare (1963) said that readability means how easily readers can comprehend or understand printed materials. Park (1977) refers to the readers' ability to make and confirm their prediction about the meaning of sentences they read. The more successful they are the easier the readability level of the text.

The earliest readability formulae were produced between 1921 and 1934, including examples from Thorndike (1921) and Vogel and Washburne (1928) as stated by Janan & Wray (2014). At that time, primary attention was given to vocabulary as the basis for predicting readability, and emphasis was placed on Thorndike's Teacher's Word Book as the basis for judging vocabulary difficulties and unfamiliarity (Klare, 1963). More formulas were developed in spite of their reliability such as McLaughlin's (1969) SMOG. Then computerized formulas were developed, such as Lexile Framework (Lennon & Burdick, 2004) which applies the use of average sentence length and word frequency as its main predictor. ATOS (Milone,2008) uses word per sentence, average difficulty level of words and characters per words.

A lot researchers have engage in research relating to readability. Woo (2005) conduct a research for the readability between Middle School English 3 and High School English 1 textbooks. In the research he uses Flesch's Reading Ease (RE) Formula. The result of the study shows that English textbooks are generally well-organized in terms of readability, text length and vocabulary difficulty. This is supported by Lee (2008) where she carried out a study to compare the readability of the English textbooks and nationwide achievement test for first year high school students by using the Flesch Formula and Dale-Chall Formula. She found out that there was no significant difference in terms of readability, which shows that the school education and nationwide achievement test were consistence with each other. Both these study found that the readability levels of the main texts source for their class were indeed coherent.

This is in contrast to research by Kim & Ma (2012) and Mirshojaee and Sahragard (2015). Both research show differences in readability levels between the textbook used and the exams. Kim and Ma (2012) found that the textbook were more readable compared to the CSAT. This shows that there is no

continuity between the textbook and the CSAT thus resulting in the students preferring to study using CSAT prep books instead of the textbook. Mirshojaee and Sahragard (2015) also come up with the same conclusion. They carried out a study where they took six Iranian general English university textbook's reading comprehension passages and compare it with reading passages taken from the reading section of the MA exams. The study shows that the MA reading passages were more linguistically complex and complicated for readers to understand. Thus giving the MA exams passages a higher readability indexes compared to the textbook.

Some researchers such as Owu-Ewie (2014) and Varzaneh and Darhani (2018) found no correlation between the readability levels with difficulty of the texts. Owu-Ewie (2014) researched the readability of comprehension passage in Junior High School (JHS) English language textbooks being used in Ghana. 48 passages from four English textbooks were ran through six readability formula. His research shows that the nature of sentences, unknown background of passage were some factors that could influence readability. Based on the study, the ease of reading can be enhance by using simple, precise and unambiguous sentences. The presence of a well structured text and using well-known and cultural friendly texts can also help facilitate readability among readers.

Varzaneh and Darhani (2018) conducted a study that aimed to investigate the relationship between readability and vocabulary profile. Reading passages from the EFL textbooks were analysed with the Flesh-Kincaid readability test. The academic wordlist for the texts were calculated using Cobb's vocabulary profiler test. Form the result of their study they concluded that there was no significant correlation between the readability level and the vocabulary profile of a text. They found that readability was not influenced by the academic wordlist. They attributed readability to other factors such as sentence length; syntax complexity and learners background knowledge.

There appear many research focusing on English textbook and its readability. However the researcher found that there were limited studies conducted to compare readability with exams especially in the local setting. For this reason, this study aims to compare the readability level for Year 4 English Textbook and the Oral LINUS Screening Text and to find out whether any differences on readability or text difficulty exists between them.

3. METHODOLOGY

In this study the five readability formula via Word Count website (<http://www.wordscount.info/>) which provides automated readability indices using FOG, Spache, SMOG and Flesh-Kincaid. First the texts chosen from the textbook will be analysed with the online readability calculator tools. Then the texts chosen from the LINUS screening test will be analysed using the same tools. The texts were randomly chosen. The consistency between the readability tools was analysed using the Spearman's rank order coefficient for texts from both sources. This is to ensure that the readability tools used shows consistent result regarding the readability level of text used.

4. RESULT & DISCUSSION

4.1 Correlation of the Formulas

From Table 1, the correlation test shows that SMOG, FOG and Flesh-Kincaid have high correlation. As for Spache, the formula shows a weak correlation with the other formula especially SMOG and FOG. With Flesh-Kincaid it shows a relatively high correlation factors. The reasons for this disparity will be discussed in length after the discussion on the result for the Textbook. From the result we can conclude that for LINUS texts the readability formulas more or less predicted the same level of difficulties for all the texts.

Table 1. Spearman's Rank Order Coefficient for LINUS texts.

Formula	FOG	Flesch-Kincaid	Spache
SMOG	0.99	0.85	0.37
FOG		0.82	0.31
Flesch- Kincaid			0.80

For the Textbook texts, the formulas SMOG and FOG also shows a high correlation factors as found in Table 2. As for Flesh-Kincaid it shows a very weak correlation factors compared to the results for LINUS. This could be attributed to the factors Flesh-Kincaid used to establish the readability level of a text. Spache on the other hand consistently show very weak correlation with the other readability formulas. For Textbook compared to LINUS only SMOG and FOG are able to predict the same level of readability for the texts.

Table 2. Spearman's Rank Order Coefficient for texts from the Textbook

Formula	FOG	Flesch-Kincaid	Spache
SMOG	0.99	0.36	0.44
FOG		0.37	0.42
Flesch- Kincaid			-0.67

From Table 1 the findings shows there are high correlation factor between SMOG and FOG in terms of assessing readability level for the LINUS texts. There is also the same correlation factor for readability in Table 2 for the textbook texts. These formulas predicted more or less the same result on the difficulty level for a text to be read. These high correlations were attained despite not having the same predictor variable for each of the formula. This is especially true in the correlation between the SMOG and FOG formula with ($\rho=0.99$). The same result was obtained by Janan & Wray (2014) when SMOG and FOG show very high correlation value in their study. Janan & Wray (2014) further elaborate that, the SMOG and FOG formulae produced virtually the same results in ranking the 64 texts in order of reading difficulty. The only common predictor variable to these two formulae is the use of the number of polysyllabic words in a text.

Based on Table 1 and Table 2 the result shows that Flesch-Kincaid produced high correlation factor when it comes to LINUS texts but not a very high correlation value for the Textbook texts. This could be attributed

to the random texts chosen from the textbook having different sentence length and words length which are important predictor for the Flesch-Kincaid formula. The LINUS texts opposed to the Textbook texts have a more consistent sentence and word length. This contributed to the high correlation factor between the formulas.

The Spache formula showed a low correlation with the other formulas. This means that the Spache formula predict whether a text is easy or hard differently compared to the other formulas. It uses sentence length and unfamiliar words as predictor. None of the other formulas uses unfamiliar words as their predictor. This could be the contributing factor for the low level of correlation.

The present study aim to explore the correlation between the readability formulas used to assess the texts chosen. There were some formulas that produced high correlation factors such as SMOG and FOG formula. In some instances, formula that show high correlation in difference types of texts like the Flesch-Kincaid where the correlation show different level when applied to different texts from two different sources. In terms predicting the difficulty level of each text the formulas were able to predict almost the same level of difficulty. Teachers can use these readability formulas to help choose and assign appropriate reading materials to readers in their classrooms.

4.2 Comparison of Difficulty Level

Table 3. Average readability level for LINUS screening texts and Textbook.

Formula	Average Readability Level (LINUS)	Average Readability Level (Textbook)
SMOG	7.69	7.48
FOG	6.52	6.28
Flesch-Kincaid	4.21	4.67
Spache	5.40	4.37

The table show the average readability level of all the texts according to the formulas used. For the SMOG, FOG, and Spache formula the lower the number the harder the readability level. The average level shows a difference of .21 to more than 1.0. This shows that there are considerable distinction between the readability levels of the texts with the Textbook being harder to read. The Flesh-Kincaid formula on the other hand, groups their reading level by basic, average and skilled. For basic the score will be between 0 to 6; average will be 6 to 12; and finally skilled 12 to 18. Even though both LINUS and Textbook produced the average in the basic range, the Textbook texts is closer to the average range compare to the LINUS texts. Thus, by comparing the average level of the texts we could conclude that the textbook were more difficult to read compared to the LINUS texts.

As for the different level of difficulties of the LINUS and Textbook texts, these could greatly impacted the post LINUS pupils ease to transition into a more independent reading situation in a normal classroom. This is especially applied to year 4 pupils where there were more independent reading tasks that required them to read longer texts. The post LINUS pupils will be struggling to cope with the learning styles that required

them to be more independent. Teachers can help ease the pupils' burden by providing more support to the pupils. A reading buddy or simplifying their tasks could be done in order to help them.

These situations could also make post LINUS pupils lose interest in reading. As they find that reading is something frustrating as they cannot understand more complicated texts compared to easier ones that they need to master for the LINUS screening. Their reading motivation will also decrease as they were not able to read independently anymore. It could also interfere with their self esteem as they will feel inferior compared to their other peers that were able to read fluently and independently. Their interest in reading could also be depleted when they encounter texts that are beyond their current reading level. Interest has a significant role in reading. Without interest, it is impossible to promote reading and try to comprehend the text (Chen, Maarof & Yunus, 2016).

Taking the readability into account, it shows that there should be a sense of continuation of the reading level for the LINUS texts and the Textbook. The pupils should be able to transition with ease and find the texts in the textbook to be somewhat challenging but readable. The differences in the readability scores should not be too great. This supported by Mirshojaee & Sahragard (2015) where they feel that reading materials should bridge relationship from one text types to another especially in the academic setting. The general English books' reading passages which may show the writers' efforts to produce an easy and reader-friendly book but the point is that the purpose of university general reading courses is to bridge the relationship between academic free reading practices and the comprehension of high level texts.

5. IMPLICATION & CONCLUSION

Based on the result of the study, teachers should be more careful when choosing their materials in class. This is supported by Chen, Maarof and Yunus (2016) teachers need to find best method of teaching based on the students' ability, background and previous knowledge, interest, motivation and vocabulary knowledge to help increase their comprehension of a passage. This could help increase the pupils reading motivation, the pupils would be more willing to try reading more difficult texts if it revolves around a topic that they like and familiar with.

Policy makers should provide teaches with more support in order to provide support to post LINUS pupils as there were more programme target for the LINUS pupils rather than post LINUS. The LINUS program should also be revised especially in the implementation steps of the programme where the ease of transitioning the post LINUS pupils into a more mainstream class can be done easily.

This study was limited in its scope to only the post LINUS pupils. It also only focuses on the types of texts they use like the textbook and the screening texts. This study would be far reaching if the texts and pupils were of a wider range. The small number of texts chosen from both sources could influence the outcome of the research. This research had to use only three texts from both sources due to the limited amount of official texts available for the LINUS texts. Due to this factors the amount of texts chosen from the textbook have to match the LINUS texts. In addition to that, the inclusion of how the target reader; the post LINUS pupils interact with the texts would also contribute to the versatility of this study.

Future researcher can make use of either questionnaire or interview to find out how post LINUS pupils really interact with the texts. Surveys on how teachers feel about the transition for post LINUS pupils to the texts found in the textbook could also be conducted to get more in depth information. Other suitable area to further research on is the readability level of the textbook itself. By applying the readability formulas on all the texts in the textbook information on the overall readability level of the textbook can be gauged more accurately.

6. REFERENCES

- Chen L.L., Maarof N. & Yunus M.M. (2016). Factors Affecting ESL Reading Comprehension of Malaysian Secondary School Students. *International Conference on Education. Education in the 21 Century: Responding to Current Issues* 542-547
- Dale, E., & Chall, J. S. (1949). The concept of readability. *Elementary English*, 26, 19-26.
- Janan, D & Wray D (2014). Reassessing the accuracy and use of readability formula. *Malaysian Journal of Learning and Instruction*, Vol 11, 127- 145
- Kim Y. & Ma J.H. (2012). Text Readability of the College Scholastic Ability Test and High School English II Textbooks. *English Teaching*, Vol. 67 (4), 195 – 218
- Klare, G. R. (1963). *The measurement of readability*. Ames: Iowa State University Press.
- Lee, Yu-Min. (2008). *A comparative analysis of readability in the English textbooks and nationwide achievement test for first-year High School students*. Hanyang University, Seoul
- Mirshojaee, S. B. & Sahragard, R. (2015). Reading comprehension passages of Iranian general English books and MA. *English Language Teaching*, 2(2), 77-98. *Nation*
- Owu-Ewie,. (2014). Readability of comprehension passages in junior high school (JHS) English textbooks in Ghana. *Ghana Journal of Linguistics*, 3(2), 35-68
- Park, N. S. (1977) *Variables in sentential readability with special reference to EFL/EFL for Korean learners*. Unpublished doctoral dissertation, Georgetown University, 1. Washington D.C.
- Varzaneh M.M & Darani L.H(2018). EFL Textbook Evaluation: An Analysis of Readability and Vocabulary Profiler of Four Corners Book Series *International Journal of Foreign Language Teaching & Research* , 6(22), 47-57
- Yunus M.M & Chun J. Z. (2016). Teachers' Perspective on the Reading Behaviour of Primary ESL Learners in SJKC Chung Hua Semera Sarawak. *International Seminar on Generating Knowledge Through Research. Proceeding of ICECRS*, (1) 493-498