Readability Level Analysis and the Usage of Complex Words on Grade 8 Students' Argumentative Essay

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ABSTRACT

Background: Writing as medium of communications has become the pivotal accomplishments of language learning objectives. It still becomes the challenging part especially for learners who come from non-English speaking country. Their hindrances to elaborate the sentences, lack vocabularies and use the right words in their essay make the essay difficult to understand.

Purpose: Therefore, the significance of the research is to identify the readability level of student's essay written by grade eight learners under Cambridge curriculum.

Design and methods: This readability is to define which level of readers is suitable to read the text and who will understand it. Then, one of the elements in analyzing the level of readability is the number of complex words the texts. Therefore, there are about 13 students' essays were examined using Flesh-Kincaid Ease Formula and SMOG index.

Results: The result found out the they have diverse readability level in between 7th grade to college level. By these results as well, it appears the number of complex words used in their essay which then being described of what kinds of complex sentences used in their essays.

Keywords: writing, essay, readability level, complex words

Introduction

Language as medium of communications encourages its user to acquire several skills in order to grasp the information. People deliver the message through oral communication or written text to their audience. Both spoken and written language have their own complexity in terms of the lexical words, sentence constructions and words syllabi (Thida, 2019). Writing, for instance, the structures of the language, the words choices and sentence types constitutes the foremost elements to convey the meaning easily to the target audience. Nevertheless, the written language gives more complex in terms of lexical density due to its characteristics to be readable and understandable (Halliday and Matthiessen, 2004).

In writing, language users determine their target audience. It has variety of ways and one of them is readability to tests the level of readers suitable for the text. Readability plays predominant role in written texts to provide the audience with quality of easy-to understand information. It includes the familiarity of words choices, lexical complexity, legibility, typography and sentence length (EssayMin, 2019). By these elements, the ideas are communicated clearly and the message is delivered well to the audience.

Meanwhile, writing still becomes one of the difficult tasks for language learners to accomplish especially for those who live in the non-English speaking country (Thida, 2019).

Thus, writing such texts are included as the aim of language learning under the national curriculum or other curriculum in Indonesia context.

Learners who enroll both national and international schools required to achieve the English language learning objectives with the use of language in written form by writing essays, stories or any other written forms according to the objectives. In Cambridge curriculum, for instance, by the end of each level of education from primary to high school, learners are encouraged to write several different kinds of texts such as story, letters, essay of expository texts and other types of texts in their Checkpoint, IGCSE and A Level exam. Besides, in national curriculum 2013 has the similar goals where learners have to be able to construct a text related to their aims of learning.

By these aims of writing texts, language learners still find it challenging especially for those do not have English as their first language (Thida, 2019). Less grammatical accuracy, the choices of familiar and interesting words as well as the limited vocabularies construct their writing with no in-depth explanations (Avila et all, 2020). In some cases, there are some incoherencies between the ideas with less elaborations in each sentence resulting their writing is strenuous to comprehend. Besides, lack of knowledge, vocabulary usages and the elaborations of the content still become hindrances and failing to reach the target in their writing.

Some characteristics such as lack of content development, the coherences in sentences and some irrelevant topics become detrimental of the text is undeveloped well (Gyasi, 2011). Therefore, readability analysis is conducted to decode in which level the students' written text is readable for the audience. The sentence lengths and word complexities are part of readability analysis which affecting the level of readability tests (Avila, et all, 2020). Furthermore, choices of words in writing constitute significance importance in identifying readability levels.

The study about readability of learners' essay has ever been conducted by some researchers. Avila et all (2020) had ever conducted to assess learner's essay in some freshmen students in Philippines. By using Flesch-Kincaid Reading Ease tools, the study found out that the students' writing did not meet the standard of the college students' level. The majority of the written levels was at range of 90% - 100% meaning that their structured writing is easy to understand and suitable for learners around 11-years old. Then, another study has also been conducted by Daw Thida (2018) to assess the readability using the similar methods of Flesch Kincaide Reading Ease tools to decode the level of graduate levels of English from Yadanabon University focusing on the lexical density. The result found out that learners' lexical density tended to be varied and the length of the essay did not reflect high lexical density in their essay.

Another study was also come from Indian university students who wrote essays about "Ways of Conserving Electric Energy in Various Halls in residencies of the University of Cape Coast". The study that was conducted by Gyasi (2011) found out that most of the readability texts were difficult to comprehend. More than 91% of the analysis found out the readability analysis scored at 50 – 59 making the text is fairly difficult to understand.

Furthermore, since most of previous studies focus on the essays from university students and analyzed by Flesch-Kincaid Readability Ease Formula, this paper is trying to decode the readability analysis of students' essay from Junior High School. They went to a Cambridge school which required learners to write argumentative essays. It is one of the text types where they have to convey strong arguments and opinions related to the topic and they have to stand in one position (Bauske, 2021). Therefore, several analyses were conducted to see the levels of audience is suitable to read the text.

Methods

There are about 13 students who have written essays and submitted as partial of Cambridge Checkpoint examination preparations. They are about 14 – 15 years old who currently enroll Junior High School grade 8 who learned English under Cambridge curriculum. Their English level are varied at the range of A2 – B2 level according to Common European Framework of Reference (CEFR) which they have acquired good English for communications. They have ability in understanding the main points of the speech productions, texts and explain the conditions according to the situations and context (Trim, 2011). Besides, they are able to use the language in daily communications, describe simple terms or objects as well as use expression in their relevance situation (Trim, 2011). Therefore, each of them was asked to write 250-words argumentative essay where they have to express ideas through their writing.

This case study involved two methods of readability analysis from Flesch-Kincaid Reading Ease Formula and Simple Measure of Gobbledygook index (SMOG). WebFX readability analysis is run to assess the students' readability to be interpreted at which level that learners' readability index. Afterwards, the average grade level was counted to see the result of which level was students' readability levels are.

Findings & Discussion

Flesch-Kincaid Ease Readability Analysis

Readability analysis was developed by Rudolf Flesch in 1942 to score the complexity of the reading texts. The analysis involves the length of the sentences and words in calculating the readability score. The longer sentences and the words, it will get the lower score whilst the shorter the words and the sentences will get the higher score (Miller, 2017). These define that the higher score of the text is considered as the easy-to-understand text and vice versa. Besides, Flesch-Kincaid readability classify several grade levels to determine the texts are suitable to different age-group or students' level based on education context. The table 1 determines the classifications of grade level of the readability.

Table 1 Flesch-Kincaid Readability Grade Level

Score	School level	Notes
100.0 – 90.0	5th grade	Very easy to read and fairly suitable for average of 11-year-old reader
90.0 – 80.0	6th grade	Easy to read. Conversational English for consumers
80.0 – 70.0	7th grade	Fairly easy to read and suitable for newspaper article.
70.0 – 60.0	8th – 9th grade	Plan English. Fairly understandable by 13-year-old readers.
60.0 – 50.0	10th – 12th grade	Fairly difficult to read and suitable for reader in average of 16 – 18-year-old.
50.0 – 30.0	University	Difficult to read
30.0 – 0.0	University graduates	Very hard to understand and most suitable is for university graduates.

Simple Measure of Goobledygook (SMOG) Index

The second method of readability is applying SMOG index which is more valid and reliable in assessing the readability. At the first glance, this analysis seems to be simple but it gives more accurate result and valid (Laughlin, 1969). The analysis involves the mathematical equations focusing on the calculations of polysyllabic in sentences and words. SMOG index

provides several steps in testing readability. Starting from counting 10 consecutive sentences in the beginning, middle and end with the total of 30 sentences. Afterwards, based on the selected sentences, count the number of syllables of words for two, three and more syllables words and after that find out the square root of the words. Next, add three to find out the grade level index (Laughlin, 1969). On the other hand, the calculation can now be analyzed digitally using some readability tools or websites.

SMOG readability grade levels are arranged based on the total of polysyllabic words. It defines the age level from the reader who are able to read it. Therefore, the approximate SMOG Grade levels can be seen at the following table.

Table 2 SMOG Index Grade Level

Total polysyllabic word counts	Grade level
0 – 2	4
3 – 6	5
7 – 12	6
13 – 20	7
21 – 30	8
21 – 42	9
43 - 56	10
57 – 72	11
73 – 90	12
91 – 110	13
111 – 132	14
133 – 156	15
157 – 182	16
183 – 210	17
210 – 240	18

Complex Words

In morphology, the structure of the words involves the morpheme as the smallest part of the words which has meaning when the words itself is dissected into several parts (Nordquist, 2020). This morpheme is the simplest form of a word which can be either the root word or the words that has its own meaning. Subsequently, when this morpheme is assembled again with some affixes that can change the meaning of a word, it becomes a complex word (Nordquish, 2019). These affixes are of words or phrases that is added at the beginning or at the end of a root word that can change the meaning and the types of words.

The structure of the complex words may vary which each word can have the root words, then follow with the suffix or prefix, or it can have the compound words followed with other affixes to construct different meaning (Nordquish, 2019). In a word readable, for instance, this word is made up a root word which is *read* - the meaning is looking at and comprehend the meaning of written text – and add the suffix *-able* at the end of the word constructing a different meaning which is becomes easy to read. In terms of readability, the longer the structures of the words, the harder the readability is (Miller, 2017). Therefore, the amount of the complex words is one of the significant sources of readability texts.

Findings

After all the essays were analyzed using WebFX Readability tools, it has obtained the result as follows:

Table 3 Result of readability analysis

Student No.	Flesch-Kinkaid Reading Ease Formula	SMOG Index	Complex Words	Percentage of Complex words
1	47.2	10.7	89	17.55%
2	45.3	11.4	27	10.93%
3	60.2	8.5	19	12.67%
4	54.1	10.4	35	12.73%
5	74.1	7.2	6	7.79%
6	56.1	9.9	46	12.07%
7	55	9.4	34	8.65%
8	45.3	10.7	27	11.25%
9	54.1	8.9	23	8.71%
10	54.4	9.3	33	7.02%
11	46.7	12	56	19.72%
12	65	8.3	10	10.31%
13	65.9	7.5	13	9.49%
Average	55.6	9.6	32.2	11.50%

The result found that there are about 4 students whose readability analysis was at the range of 60 – 70 which means these students have written the essay based on their age level according to Flesch-Kincaid Readability level. These essays were still quite easy to read and easily to understand to the audience who are between 14 – 15 years old which they are about 8th or 9th grade level of students. Besides, there are 6 students whose essay readability score at range of 50 – 60. These essays were suitable for readers in 10 – 12 grade level or at range of 17 – 18 years old. Nevertheless, the remaining students' essays scored at range between 50 – 30 which categorized for college students or age 19 -21 years old.

Secondly, according to SMOG Index data shows different grade level as well. Some students have shown that the range of the polysyllabic words at their essays were varied. Starting at level 7 to 12 of SMOG Index appears as the result. There are about students whose readability result was at range 7 – 9 levels. Besides, the remaining students show the SMOG Index level was at 10 – 12 grade levels.

The average readability of students' essay above was about 55.6 at Flesch-Kincaid readability level and 9.6 for SMOG Index. It defines the ability of leaners' writing levels can reach the audience who are at 10 – 12 grade students or age 17 – 18 years old. People who are below this age has difficulty in understanding the text. Therefore, it indicates that their essay writing was quite hard to understand and is not readable for all levels.

This study is also calculated the number of complex words used in students' essays. The number were varied which the least complex words used only 10 words while the widest range of complex words one was about 89 words in their essays. Complex words are the combinations between the root words and some affixes (Kassem, 2013). Besides, the average use of complex words in the essay shows about 32 words which means it is only 11.50% that learners are able to add complex words in their essays. The following figure shows complex words were used in students' essay.

Although music does a little to improve differences between age groups, it does help culture relate through universal and human perspective.

Music definitely uses its universality together with different cultures. What I mean by this is that even though people may not understand other cultures, they can still understand the music. One of great examples is the music of Bob Marley, he's from a small Caribbean country called Jamaica, he expressed universal feelings of love, empathy and positivity in his song, against the backdrop of political and economic upheaval of his country. His music becomes infectious music which means that it is a music that you can't get out of your head, and has translated across cultural divides. People who might not have any experiences with different races or cultures can still listen and enjoy Bob Marley's music. This is one of examples that music brings people from different cultures together.

I also believe that music is not a really good unifier in terms of generation disparity that people tend to enjoy the music from their formative years and disdain whatever is currently relevant. Example, my mom always wanted to listen to the 90s slow rock songs. Well I also love 90s slow rock songs like Bryan Adams, Air supply, Saigon kick, etc but I sometimes also wanted to hear the latest music on the radio, but my mom doesn't want to change the radio then we started to debate over the music genre. Then when I change the radio, mostly, my mom doesn't like the music I listen to. Most people would recognise the most accurate stereotype of an old person complaining about the music that youth listen to nowadays. Older people refer to what they used to listen to. The differences between the generations are reflected and augmented rather than mediated due to the different personalities and styles of modern music.

Figure 1 Student's essay 1

The words such as universal, upheaval and infectious are some examples of complex sentences appear in this essay. When dissecting the words of universal, for instance, it has the root word of universe and the suffix -al that has the meaning of affecting or done to almost all people. Secondly, the word upheaval was also one of the complex words used in the essay. The word is constructed from the prefix *up* + heave and suffix -al. It has a transparent meaning to giving the disruptions to make a change on something. Then, the next word appears to be infectious comprising of the root word of infect and add the suffix of *ious.*

Music is important to me because it can boost my mood and make me think positively. And I can express myself. It can bring people together whether they sing together or enjoy a song. Music can also bond people together like when people go to concerts.

We can hear music when we are sad and turn our mood around. Going to concerts can make a bond stronger. And hearing new genre of music is also very exciting

Can music bring people together? Yes it can, we can sing together with our friends, go to concerts and. And we can also sing karaoke with our friends or family

Figure 2 Student's essay 12

Some complex words above appear to be less frequent compare to figure 4.1. It can be seen that the words ending with suffix *-ing* or *-er* were the several complex words that mostly appear. The words such as exciting, hearing and also stronger are the words used in this text. Therefore, it shows that the uses of complex words have not been developed yet in the essay.

Conclusion

Writing becomes the learning objectives of language learners and has included to be the examined for Cambridge examinations Checkpoint. They are expected to have written several different kinds of essays to meet the criteria of achieving the learning objectives. Therefore, readability tests on their essay is conducted to assess in which levels their writing is readable for. By examining its readability, it is found that learners tend to have different level of audience for their essays. The average readability level was determined that the essays was suitable for year 7 and above audience. It is categorized that their essay is not easy to understand for all levels. Even some learners achieve the readability level score for grade 12 and above defining that their essays was difficult to understand. Besides, each student is also able to add complex words in their essays which shows different range of complex words use. At current research, there were only 13 students who are tested for their readability levels and expect the further research to gain more participants in testing readability levels. Besides, assessing more complex words for more than just the additional of affixes is strongly recommended.

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Biography

| Lisana Rahmati Marzan | Lisana Rahmati Marzan is an experienced language teacher and educator for almost 5 years. She began her career as primary teacher to teach English under Cambridge Curriculum. Then, she expands her experiences in teaching Junior High School as well as the adult learners to acquire better English. In her experiences, she always finds novel things and triggers her to record them in form of research paper. In 2020, she became the speaker in International Conference on Natural and Social Science Education 2020. Then, starting 2021, she contributed to publish her study in educational journal. |