

AN ANALYSIS OF LEXICAL DENSITY AND READABILITY IN READING TEXT ON ENGLISH TEXTBOOK USED BY FORM 4 LEVEL OF SECONDARY SCHOOL STUDENTS IN SMKBSB MALAYSIA

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Abstract

English is one of the compulsory subject in Malaysian educational system. The main focus of Standar Based English Curriculum in Malaysia is focusing on the ability of students in facing the real world. The development of information also influences the students' readiness to face the real world. The information can be obtained from any source of knowledge, such as textbook. Textbook contains many authentic materials called text. The problems arise in Sekolah Menengah Kebangsaan Bandar Sungai Buaya that the students get difficulties in reading because they have limitation on vocabulary mastery. Moreover, they also feel bored and confuse when reading a text because they do not understand the meaning of the text caused by the limitation of vocabulary and the text is too long. The objectives of this research are to analyze the number of lexical density especially lexical items and the level of readability that are found in 16 reading texts of English textbook, entitled English Form 4 that used by form 4 level of students in SMKBSB Malaysia. In conducting this research, the writer uses Lexical Density and Flesch Reading Ease

Keywords – Textbook, Reading Text, Lexical Density, Readability.

Introduction

English is the second language that is used in Malaysia and it is taught in all schools throughout the countries in Malaysia. Although there are varieties of English used, the standard British English is considered as the official standard of reference for English. It becomes the compulsory subject in its educational system and SPM (Sijil Pelajaran Malaysia). SPM (Sijil Pelajaran Malaysia) is similar with National Exam in Indonesia. It is for the secondary school students in order to graduate and continue to the university.

Standard-Based English Language Curriculum for secondary school is based on the six strands which are: communication, spirituality, attitude and values, humanities, personal competence, physical development and aesthetic and science and technology. In the SBELC (Standard Based English Language Curriculum) knowledge, skills and good values are elements integrated each strand. These elements are woven into every lesson to calculate awareness, understanding and respect for the diversity (Kurikulum Standard Sekolah Menengah:2017:2)

The 21st century learning method has been applied in Malaysia. In preparing students to meet the challenges of 21st century due emphasis is given to developing perseverance, critical, creative, and innovative thinking and current information and community technology (ICT) skills. This is an effort from Malaysian Education Ministry to improve the quality of teaching and learning process. It also applies the HOT (High Order Thinking) skill in the teaching and learning process in order to give the positive atmosphere for the students and improve an ability to apply knowledge, skills and values in reasoning, reflecting, problem-solving, decision-making, innovating and creating. This learning method gives an opportunity for the students to explore deeply about themselves.

As the compulsory subject at school, the students have to know that there are four skills in English that have to be mastered. They are listening, reading, speaking, and writing. Starting with the listening and speaking followed by reading and writing. Those skills are important to be mastered without ignoring each other. Then the main goal in mastering language will be achieve.

Reading is clearly one of important language skills to be master by the students. It is one of compulsory subjects at school because by reading they can get new knowledge and achieve the goal of learning reading. One of the components that have to be considered in learning

reading is the vocabulary mastery. Vocabulary mastery is related to the lexical density of the words based on its part of speech. Whether the word belongs to noun, verb, adverb, adjective, etc. Lexical density also has closest relation to the level of readability.

Based on the observation, students get difficulties in reading because they have limitation on vocabulary mastery. Moreover, they also feel bored and confuse when reading a text because they are not understand the meaning of the text caused by the limitation of vocabulary and the text is too long. One of the things that can support the successful criteria of learning reading is a reading material. The materials can be authentic materials, for example from newspaper, magazine, recipe, etc. Sometimes the teacher also uses a textbook as a source of learning process.

The use of textbook also can support the learning process because textbook contains the collection of texts taken from the authentic materials, for example newspaper, magazine, etc. Textbooks are important for students to prepare and fulfill experiences in the good process. Basically the teacher's job is conveying or guiding the students to gain some important knowledge and get meaning from written text. The English teacher should be able to decide whether the contents of the textbook are suitable with the current curriculum or not.

In relation with the textbook, the Malaysian Education Ministry has been managed a standardized textbook which must be used in teaching English to the students. The government provides English textbook for each level. In secondary school, English textbook is provided from the first level until the fifth level. The book contains many chapters, each linked to the themes stipulated in the syllabus. Each chapter provides teaching points and practice in the four basic language skills of listening, speaking, reading and writing.

There are several reasons why the writer chooses the book. First, English form 4 textbook is used for teaching English as a second language to the form 4 level of secondary school students in Sekolah Menengah Kebangsaan Bandar Sungai Buaya because it is important to know whether the reading text are appropriate with the students' need or no. Second, the writer uses the book to know the level of lexical density and the level of readability of reading text based on the 4th grade level of Secondary school.

The objectives of the study can be stated as follows:

- 1) To analyze the lexical density especially the lexical items formed in the reading text on English Form 4 text book published by Kementrian Pendidikan Malaysia.

2) To measure the level of readability in reading text found in English Form 4 text book published by Kementerian Pendidikan Malaysia.

National curriculum is an educational programme that includes curriculum and co-curricular activities which encompasses all the knowledge, skills, norms, values, cultural elements and beliefs to help students develop a full respect to the physical, spiritual, mental and emotional aspects as well as to inculcate and develop desirable moral values and to transmit knowledge. The curriculum that is used in Malaysia is called as Kurikulum Standard Sekolah Menengah (KSSM).

English language is the future of communication within the local and global context as it transcends across cultural and linguistic boundaries. In Malaysia, English is the second language and taught in all schools throughout the country as English is an International language and widely used on the internet. It is reaching in terms of lifelong knowledge acquisition, forging cultural understanding and preparing students for real world situation.

The 21st century learning method has been applied in Malaysia. In preparing students to meet the challenges of 21st century due emphasis is given to developing perseverance, critical, creative, and innovative thinking and current information and community technology (ICT) skills. The principles of curriculum is following the five guiding principles that meet the challenges and demands of the 21st century such as preparing for the real world, sustaining the language, acquiring the global competencies, acknowledging students differences, and developing confident and competent communicators.

The 21st century learning also has closest relation to higher order thinking skills (HOTS). Higher Order Thinking Skills (HOTS) is the ability to apply knowledge, skills and values in reasoning, reflecting, problem-solving, decision-making, innovating and creating. In standard based English curriculum on HOTS refer to the four cognitive levels namely application, analysis, evaluation and creation.

The Standard Based English Language Curriculum for Secondary Schools (SBELC) is a progression from the Standard Based English Language Curriculum for Primary Schools and is developed on the basis of accessibility, quality, equity, flexibility and do-ability. It is based on the six strands which are communication, spirituality, attitude, and values, humanities, personal competence, physical development and aesthetics and technology.

Each strands also integrated with the elements, such as knowledge, skills and good values. These elements are woven into every lesson to inculcate awareness, understanding and respect for the diversity among individuals and various communities leading to unity and harmony in multicultural society.

The aims of standard based English curriculum are to enable students to communicate confidently, proficiently and competently and require the student to be knowledgeable and respectful to other cultures and well-versed in emergent literacies. The students can make calculated decisions through critical and analytical thinking and collaborate with others to solve problems creatively and innovatively in the real world.

According to Browers's idea (1991) textbook is a coherent body of teaching materials which may consist of not only the course but also a learning package consisting of several parts. Meanwhile, Carter and Carthy's idea (2006) text is a stretch of language, either in speech or in writing. That is set a semantically and pragmatically coherent in its real-world. A text can range from just one word to sequence to utterance or sentence in a speech, a letter, a novel, etc. But of course not all text is the same and function model of language tries to describe the ways in which they differ. Anderson (2003:1) also states that a text is defined as the result of some words which are put together to communicate a meaning.

Lexical density is the kind of complexity that is typical of written language (Halliday:1985). Halliday (1985:64) defines lexical density as the proportion items (content words) to the discourse. It can be measured in various ways, the ratio of lexical items either to the total running words or to some higher grammatical unit, most obviously the clause, with or without waiting for relative frequency (in the language) of the lexical items themselves. Meanwhile, Nunan (2003:11) states that lexical density referred to the number of lexical content of function word per clause.

5. Readability

Readability is a quality concerning the act of reading a book or document with ease and interest (Sardana : 2002). While Bailin (2016) states that readability is concerned with the degree to which it is easy or difficult to understand what is being communicated through written text.

Methodology

The types of this research is descriptive qualitative. The writer carries out this research to know the number of lexical density and the level of readability in the reading materials found on the text book entitled English Form 4 that published by Kementrian Pendidikan Malaysia.

The subject of the research is reading text on English text book entitled English Form 4 that published by Kementrian Pendidikan Malaysia. This book is edited by Melina Wong Binti Abdullah and the copyright is published by PGI Cipta Sdn. Bhdin 2013. There are 16 chapters in this text book. Each chapter has one reading text. So, the writer will analyze 16 reading text.

In this study, the writer analyzes the lexical density and the level of readability in reading materials on English text book entitled English Form 4 that published by Kementrian Pendidikan Malaysia.

The writer of this paper collects the data using documentation technique. Documentation is the technique which is used to collect data and information about related needs in analysis of lexical density and readability, such as curriculum, textbook, and reading text on English textbook.

The writer of this paper uses Halliday's (1985) method to measure lexical density and Flesch's reading ease formula (1948) to measure the level of readability of English text book entitled English Form 4 that published by Kementrian Pendidikan Malaysia. There are several ways that the writer uses to analyze the data, they are:

Calculating the lexical density:

- 1) First the writer reads the reading material on the text book.
- 2) Second, the writer identifies the word based on Riyanto (2010) about content word.
- 3) Third, the writer classifies the content word according to Riyanto (2010).
- 4) The last, the writer calculates the amount of lexical items based on Halliday (1985):

$$\text{Lexical Density} = \frac{\text{The number of lexical items}}{\text{Total number of words}} \times 100\%$$

For measuring the level of readability, the writer uses Flesch's Reading Ease (1948)

- 1) First, the writer calculates the ASL (Average Sentence Length). ASL is calculated the number of words divided by the numbers of sentences.

- 2) Second, the writer calculates the ASW (Average Syllables per Word). ASW is calculated the number of syllables divided by the number of words.
- 3) Third, the writer calculates the number of ASL and ASW with the formula of Flesch's reading ease.

$$RE : 206.835 - (1.015) \times ASL - (84.6 \times ASW)$$

- 4) Last, determine the difficulty level and reading grade by reading ease scale.

Reading Ease Score	Style Description	Estimated Reading Grade
0 to 30;	Very Difficult	College graduate
30 to 40;	Difficult	13th to 16th grade
50 to 60;	Fairly Difficult	10th to 12th grade
60 to 70;	Standard	8th and 9th grade
70 to 80;	Fairly Easy	7th grade
80 to 90	Easy	6th grade
90 to 100;	Very Easy	5th grade

Finding(s) and Discussion

1. Result of Lexical Density

Chapter	Text	Content Word	Function Word	Total Word	Lexical Density (LD)
1	1	224	161	385	58.0%
2	2	190	178	368	51.6%
3	3	182	172	354	51.4%
4	4	167	178	345	48.4%
5	5	142	131	273	52.0%
6	6	239	274	513	46.5%
7	7	231	255	486	47.5%
8	8	184	223	407	45.2%
9	9	183	207	390	46.9%
10	10	201	157	358	56.1%
11	11	164	185	349	46.9%
12	12	155	206	361	42.90%
13	13	202	176	378	53.40%
14	14	265	273	538	49.20%

15	15	231	186	417	55.39%
16	16	210	211	421	49.80%

Number of words, sentence, and syllable

Chapter	Text 1	Number of Words	Number of Sentence	Number of Syllable
1	1	385	41	580
2	2	368	28	517
3	3	354	30	543
4	4	345	38	524
5	5	273	30	485
6	6	513	40	797
7	7	486	29	682
8	8	407	22	491
9	9	380	32	625
10	10	358	26	636
11	11	349	23	685
12	12	361	27	537
13	13	378	36	641
14	14	538	46	900
15	15	417	23	840
16	16	421	40	716

2. Result of Readability

Chapter	Text	ASL (Average Sentence Length)	ASW (Average Syllables per Word)	Readability (RE)
1	1	9.3	1.5	70.5
2	2	13.1	1.4	75.1
3	3	11.8	1.5	68.0
4	4	9.1	1.5	70.8
5	5	9.1	1.8	45.3
6	6	12.8	1.5	67.0
7	7	16.7	1.4	71.4
8	8	18.5	1.2	86.6
9	9	12.2	1.6	59.2
10	10	13.7	1.7	49.1
11	11	15.1	1.9	30.7
12	12	13.3	1.4	74.9
13	13	10.5	1.6	60.8
14	14	11.6	1.6	59.6
15	15	18.1	2.0	19.2
16	16	10.5	1.7	52.4

Discussion

1. Lexical Density

Chapter	Text	LD	Low (40-50)	Quite (50-60)	High (60-70)
1	1	58.00%		✓	
2	2	51.60%		✓	
3	3	51.40%		✓	
4	4	48.40%	✓		
5	5	52.00%		✓	
6	6	46.50%	✓		
7	7	47.50%	✓		
8	8	45.20%	✓		
9	9	46.90%	✓		
10	10	56.10%		✓	
11	11	46.90%	✓		
12	12	42.90%	✓		
13	13	53.40%		✓	
14	14	49.20%	✓		
15	15	55.39%		✓	
16	16	49.80%	✓		

2. Readability

Chapter	Text	Reading Ease	Description	Estimated Reading Grade
1	1	70.5	Fairly Easy	7th Grade
2	2	75.1	Fairly Easy	7th grade
3	3	68.0	Standard	8th to 9th grade
4	4	70.8	Fairly Easy	7th Grade
5	5	45.3	Difficult	13th to 16th grade
6	6	67.0	Standard	8th to 9th grade
7	7	71.4	Fairly Easy	7th Grade
8	8	86.6	Easy	6 th grade
9	9	59.2	Fairly Difficult	10 th to 12 th grade
10	10	49.1	Difficult	13th to 16th grade
11	11	30.7	Difficult	13th to 16th grade
12	12	74.9	Fairly Easy	7th Grade
13	13	60.8	Standard	8th to 9th grade
14	14	59.6	Fairly Difficult	10th to 12th grade
15	15	19.2	Very Difficult	College graduate
16	16	52.4	Fairly Difficult	10 th to 12 th grade

Conclusion(s)

Based on the result of the data description and discussion, the writer concludes the conclusion as follows:

1. From 16 reading text on English textbook, there are 9 text that has low lexical density (text 4, text 6, text 7, text 8, text 9, text 11, text 12, text 14, text 16), 7 text that has quite lexical density (text 1, text 2, text 3, text 5, text 10, text 13, text 15). In this case the number of lexical density is not only the one aspect that influences the readability.
2. From 16 reading text on English textbook, there are 1 text that categorized as easy to read (text 8), 5 text that categorized fairly easy to read (text 1, text 2, text 4, text 7, text 12), 3 text that categorized standard to read (text 3, text 6, text 13), 3 text that categorized fairly difficult to read (text 9, text 14, text 16), 3 text that categorized difficult to read (text 5, text 10, text 11), and 1 text that categorized very difficult to read (text 15).

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