

The development of vocabulary for early-grade elementary-school students

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Abstract

Vocabulary mastery is very important for measuring the elementary-school students' achievement. The amount of vocabulary in the student book reflects the standard of proficiency vocabularies should be achieved for certain level. This study aims to describe the development of vocabulary in the books of early-grade elementary-school students (level 1,2,3) and shows the number of vocabularies. Each level has eight books/themes. Therefore, this study uses 24 books. In this study, we apply *lema* 'entry' application as the documentation method. The results of the study showed that the highest number of vocabularies is in grade 3 theme 7, the least is in grade 1 theme 6. The highest of vocabulary in grade 1 is 2105 (theme 3), grade 2 is 2328 (theme 5), and grade 3 is 2383 (theme 7). The development of vocabulary does not always rise from one theme/level to the theme/class above it. Writing books for the student should consider increasing vocabulary, not just the number of words or pages.

1. Introduction

The 2011 Progress International Reading Literacy Study (PIRLS) test revealed that the reading ability of Indonesian fourth-grade students placed in 45th rank out of 48 participating countries with a score of 428, below the average score of 500. The data of Indonesian National Assessment Program 2016, the equivalent of PIRLS, shows that the value of Indonesian children's reading ability which is still in the less category is 46.83% [1]. The data shows that the reading ability of elementary students in Indonesia is still low. This reading ability condition might be caused by the vocabulary mastery of the students, including the source of students' vocabulary, namely student books.

Early-grade elementary-school; focusing for year one, year two and year three, was the early days of a child learning languages and developing vocabulary. The period so-called 'the golden age' of a child, recognizes language including vocabulary. Therefore, the introduction of vocabulary for the early-grade is critical [2]. The introduction begins with vocabulary starting with things of their daily life. The number of vocabulary words in the student book will show the amount of vocabulary must be mastered in certain level. There should be some developments from each level to the next level [3].

Vocabulary cannot be separated from the dictionary. In Indonesia, the Big Dictionary of Indonesian Language edition 1 (1998) contains 62,100 entries. Edition II (1990), contains 72,000 entries. Edition III (2005), contains 78,000 entries, edition IV (2008), containing 90,000 entries. Issue V (2016), contains 127,036 entries

The 2013 curriculum that applies now in Indonesia does not refer to the number of specific vocabulary students must master when they graduate from elementary school. The 1994 curriculum

states that elementary school graduates have 9,000 vocabularies. Reference to this 1994 curriculum should have been carefully considered. When compared with the V edition dictionary, mastering 9,000 vocabulary is not a difficult thing[4]. The problem is 9,000 which means that any vocabulary is never mentioned.

Research on vocabulary development of the urban children showed that three quarters had approximately 1500 words in the middle of the first year of entering school (grade I)[5]. According to him, the words that are known by grade I children are (1) vocabulary that states taste, (2) daily vocabulary, (3) vocabulary that appears almost in the sentence, and (4) vocabulary about something experienced and lived by children. Students who finished year 1 should comprehend 3000 words of vocabulary mastery, 1000 words of vocabulary each year. The average vocabulary for 12th-grade students is around 14000 and for students around 18,000-29,000 words [6]. Besides, the Zuhdi study shows the number of vocabulary in books in elementary school is 3,253 for level 4; 3,727 for level 5; and 3,244 for level 6[7]. A similar study conducted by Sarwadi produced of 4,000 vocabularies for level 6th elementary school children[8]. This shows that the number 9,000 vocabulary for elementary school graduates referred to in the 1994 curriculum is still far from expectations.

This study aims to describe the development of vocabulary in the books of early grade elementary school students (level 1,2,3) and show the number of vocabularies. This is important to do because it can be used as a reflective material on how much vocabulary is introduced to students and how much should be introduced to students.

2. Methods

The 2013 curriculum ensures that elementary schools use thematic books, which means that all subjects are included in the thematic book. Each level in classes 1, 2, 3 uses eight themes, and each theme has one book, so each level has eight books/themes. Therefore, this study uses 24 books with code: book 1 for level 1 theme 1 (1.1); book 9 for level 2 theme 1 (2.1).

In this study, the application of *lema* 'entry' was applied as a method of documentation. The application of the entry is the result of research on Directorate of Research and Community Service, the Ministry of Research and Higher Education in 2017 and 2018[4]. The application was developed with the help of PT Andromedia. The application is in the form of vocabulary software calculation of word count 'number of words; which contains pages' number of pages', words' number of words', characters (no spaces) 'letters (no spaces), character with spaces' letters with spaces', paragraphs' paragraph', lines' lines' already embedded in the Microsoft Words program. However, the *lema* 'entry' is not just a "number of words". The same word which word count will count all will only be counted one by this application. The application can detect the number of sentences, words, entries or vocabulary, favourite vocabulary, etc. In this study, the application is used for calculating vocabulary. The database is taken from the Big Dictionary of Indonesian Language, and a dictionary found in Wiktionary. The sentence identification is made with the initial capital letters and the end of the punctuation (.,?, or !). Identification of the entries is made by matching the entries with the database.

Entry application consists of: backend folder, bin, data, UI. Besides, there are also install, txt, main.exe, main.go, and README.md. The name "play" is clicked to open the application. The resulting application can count the entries in less than one minute. The results of the calculation consist of three sheets in the excel program, namely: summary, a recap of entries, report.

3. The Result of The Study

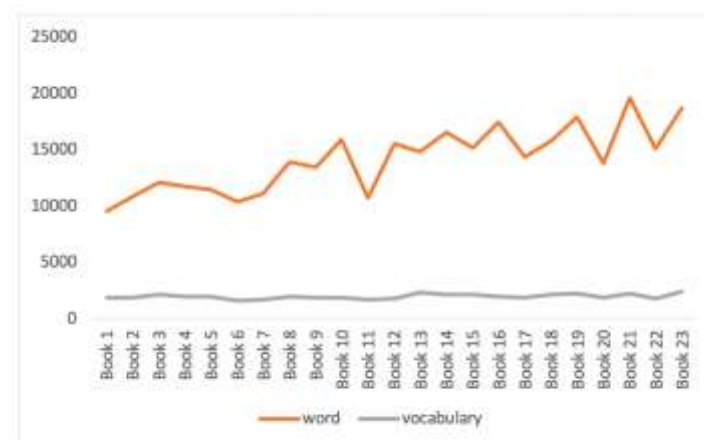
The results of the study showed that the highest number of vocabulary was in level 3 of theme 7, at least in level 1 theme 6. The highest vocabulary in level 1 is 2,105 (theme 3); level 2 is 2,328 (theme 5); and level 3 is 2,383 (theme 7). The development of vocabulary does not always rise from one theme/level to the theme/class above it. The following is a table that shows the number of words and vocabulary in the book of early grade elementary school students.

Table1. Words and Vocabularies

| | Word | Vocabulary | Word:Vocabulary |
|---------------|-------|------------|-----------------|
| Book 1 (1.1) | 9608 | 1843 | 5 |
| Book 2 (1.2) | 10862 | 1909 | 6 |
| Book3 (1.3) | 12078 | 2105 | 6 |
| Book4 (1.4) | 11700 | 1924 | 6 |
| Book5 (1.5) | 11489 | 1965 | 6 |
| Book6 (1.6) | 10405 | 1601 | 6 |
| Book7 (1.7) | 11148 | 1688 | 7 |
| Book8 (1.8) | 13956 | 1961 | 7 |
| Book9 (2.1) | 13443 | 1907 | 7 |
| Book 10 (2.2) | 15884 | 1899 | 8 |
| Book 11 (2.3) | 10724 | 1696 | 6 |
| Book 12 (2.4) | 15530 | 1792 | 9 |
| Book 13 (2.5) | 14841 | 2328 | 6 |
| Book 14 (2.6) | 16501 | 2116 | 8 |
| Book 15 (2.7) | 15224 | 2110 | 7 |
| Book 16 (2.8) | 17446 | 1954 | 9 |
| Book17 (3.1) | 14395 | 1915 | 8 |
| Book 18 (3.2) | 15832 | 2117 | 7 |
| Book 19 (3.3) | 17878 | 2226 | 8 |
| Book20 (3.4) | 13790 | 1908 | 7 |
| Book21 (3.5) | 19660 | 2250 | 9 |
| Book22 (3.6) | 15126 | 1798 | 8 |
| Book23 (3.7) | 18695 | 2383 | 8 |
| Book24 (3.8) | 16810 | 2018 | 8 |

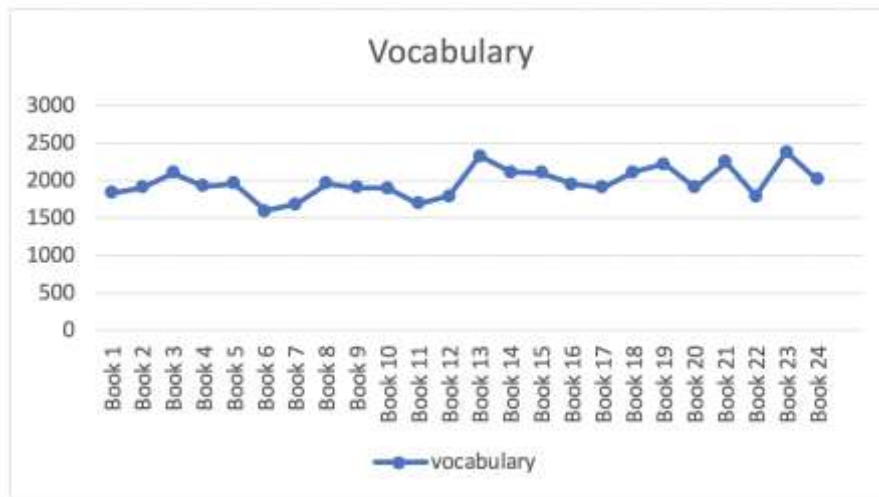
If seen from a comparison of the number of words and the vocabulary of the average can be seen that the highest is 5 and the lowest is 9. The table shows that on average 5--9 times the vocabulary used in the book. In the form of figures, words and vocabulary in elementary school students' books in the early classes are as follows.

Figure 1. Words and vocabularies in elementary school students' books



The figure shows that the least number of words is in book 1 (1.1) and the highest number of words is in book 21 (3.5). The number of the word up and down in the move level. Figure 1 does not clearly show the development of vocabulary because it is compared with the number of words. Therefore, the following is presented in figure 2, which accurately shows the number of vocabularies in the books of early grade elementary school students.

Figure 2. Vocabulary



Based on the figure 2 it appears that the least vocabulary is found in book 6 (1.6), not in book 1 (1.1). The most vocabulary is in book 23 (3.7), not book 24 (3.8). Book 6 (1.6) with the vocabulary number 1,601 and book 7 (1.7) with a vocabulary number of 1,688 which is a book with the least vocabulary compared to other books. The book 13 (2.5) with a vocabulary number of 2,328 and book 23 (3.7) with a vocabulary of 2,383 is a book with the most vocabulary.

The number of 2,383 in level 3 is still far behind with the number of the vocabulary of level 1 elementary school students in America reaching 3,000. When compared with the 1994 curriculum target with 9,000 vocabularies for elementary school graduates (half or 4,500 in level 3), this is also still very far from expectations. Therefore, the writing of student books should not only be based on the number of pages, but also on the number of vocabularies that is including the development of new vocabulary every time they enter the new level.

4. Conclusion

The development of the number of vocabulary in the books for early grade elementary of school students does not show good development. The amount of vocabulary in a student's book should increase as the level will increase. However, the number of vocabulary books in the early grade elementary school students does not increase continuously, but up and down. Even the number of vocabularies is at least not found in book 1, and the highest number of vocabularies is not found in the final book (book 28).

Hopefully, the results of this study can arouse the attention to the importance of the development of the number of vocabularies in student books. Besides, it is expected that the policy related to student books will correlate to the development of the number of vocabularies. This fact needs to be considered because more knowledgeable about vocabulary the students are, the broader thinking insight will they have.

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