# CORRELATION BETWEEN STUDENTS' VOCABULARY MASTERY AND THEIR READING COMPREHENSION 

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#### Abstract

The paper deals with the correlation between students' vocabulary mastery and their reading comprehension. Data were collected from 34 second grade students. The test items of reading comprehension and vocabulary mastery were given to the students to measure their level of reading comprehension and vocabulary mastery. The results were compared to find out the correlation between those variables. The findings showed that there was a strong correlation between students' vocabulary mastery and their reading comprehension. The current study concluded that vocabulary mastery was contributive in helping the students to comprehend the texts.


Keywords: Correlation, reading comprehension, vocabulary mastery

## Introduction

Reading is one of the important language skills. By reading, people may get a lot of information. The more he/she reads, the more information he/she will get. Reading makes someone smarter and creative. As stated by Laddoo (2007) reading forces the reader's brain cells to work on a regular basis as this will keep the reader sharper and smarter. Even though some information can be obtained without reading, for example by listening to teacher, seminar, radio, television etc, but by reading someone may get wider information than listening. For example, someone who reads a newspaper will get more information than someone who watches news on television. Areader can read the text again when he/she forgets or tries to get detailed information, while a listener cannot. This is supported by Willis (2008) who states that by reading, someone can find the information he/she needs with specific information.

In order to gain specific information, students at school should be taught how to read effectively and efficiently, such as making prediction about what will happen (Klingner, Vaughn and Boardman, 2007). Another way to help the students to understand the text without knowing all the vocabulary in the text is by
finding key words. It is in line with Lehr \& Osborn (2001) who explain that to understand a text, we need to find the key words of the text. By doing this strategy, students can cover their vocabulary weaknesses since vocabulary knowledge is one of the major factors that influence reading comprehension (Roehrig and Guo, 2011).

Reading comprehension and vocabulary mastery have a strong relationship. It is in line with Sedita (2005) who states that vocabulary knowledge is crucial in reading comprehension and determining how well students are in comprehending the texts. In the regard to this matter, this study attempts to find out the ability of students' reading comprehension, students' vocabulary mastery and the correlation between students' reading comprehension and their vocabulary mastery.

After knowing the correlation, teachers are expected to be able to choose appropriate strategies to teach their students. This study is also expected to give significant contribution to others, especially English teachers and future researchers. When the teachers know the correlation between vocabulary mastery and reading comprehension, it may help them to figure out some appropriate strategies in order to help their students to comprehend the texts.

## Literature Review

- Definition of Reading

Many experts have differently defined the word reading. According to Grellet (1985) reading is assigning meaning and extracting information from written texts. It means reading requires some abilities to extract information from a text and to construct new understanding. Guy (1993) states that reading is the recognition of printed or written symbol that serve as stimuli to recall meanings. It shows that reading requires the ability to recognize symbol or printed words and to construct a meaning from a text.

However, according to Klingner, Vaughn and Boardman (2007) reading is a process of constructing meaning that can be achieved through dynamic instruction among the following aspects: the reader's prior knowledge, the information suggested by the text, and the context of the reading situation. It is also supported
by McEntire (2003) who defines reading as a constructive process which the prior knowledge and experience affects the reader's comprehension of the text. It seems that the prior knowledge and experience are important to get proper understanding of the information in a text. Appropriate comprehension is possible to obtain as the content of the text is close to the reader's prior knowledge. For example, a doctor who reads a medical article would find it better in comprehending the text than the farmer.

Furthermore, Grabe \& Stoller (2002) state that the idea of reading is also to do with purposes, experiences, strategies, skills, and even attitude towards reading. It means that reading facilitates a writer to share knowledge, ideas and feelings with reader, where both of them have their own language patterns and experiences. It indicates that reading is not only getting messages from a text, but also utilizing the reading purposes and strategies to do with.

- Reading Comprehension

Grabe \& Stoller (2002) define comprehension as processing words, forming a representation of general main ideas and integrating it into a new understanding. It suggests that comprehension is achieved when a reader successfully extracts the useful knowledge from a text and constructs it into a new understanding of their own. Furthermore Day and Park (2005) also propose several types of comprehension, as follows.

1. Literal comprehension is to have a straightforward understanding meaning of a text, such as vocabularies and facts, which is not explicated in that text.
2. Inferential comprehension is to conclude information from a text and build new information which is not explicitly stated in text.
3. Reorganization is rearranging information from various parts of a text in order to get new information.
4. Predictive comprehension is integrating reader's understanding of a text and their own knowledge about that text in order to determine what might happen next or after it is finished.
5. Evaluative comprehension is like inferential comprehension. The difference is that evaluative comprehension requires readers' comprehensive
judgment about some aspects in a text and ability to redevelop an understanding by using related issues.
6. Appreciative or personal comprehension is reading in order to gain an emotional or other value response from a text, and it demands reader to respond a text also with their feelings.

From the definitions above, reading comprehension refers to the understanding of what has been read. Comprehension is a thinking process that depends not only on the comprehension skills but also on the readers' experience and background knowledge.

- Definition of Vocabulary

According to Nation \& Newton (1997) vocabulary is knowledge of words and word meanings. Actually vocabulary is more complex, vocabulary mastery is not only knowing the words and its meanings, but also knowing about how the words sound and how the words are used in the context. It is according to Miller \& Gildea (1987) that knowing a word by sight and sound and knowing its dictionary definition are not the same as knowing how to use the word correctly and understanding it when it is heard or seen in various contexts.

Building up a useful vocabulary is central to the learning of a foreign language at primary level (Cameron, 2001). Someone who has a lot of vocabulary of foreign language, she/he could learn language easily. Since vocabulary is all about words, and good mastery of vocabulary helps someone understand language. It is supported by Wallace (1982) who says that vocabulary is one of the most important parts of languages, because when speaking a language, the speakers need several words to convey ideas. Therefore, people can understand what the speakers mean. When a learner intends to learn foreign language, he/she has to learn the vocabulary of the foreign language first.

Wallace (1982) mentions two main reasons about the importance of vocabulary.

1. Language exists in two forms, spoken and written, both of them need vocabulary to develop the existence itself.
2. Vocabulary is needed for production in learning English as a foreign language rather than only needed for recognition it. Furthermore, Lehr \& Osborn (2001) explain two kinds of vocabulary description as follow.

First, words come in two forms, oral and print.

1. Oral vocabulary includes the words that are recognized and used in listening and speaking.
2. Print vocabulary includes the words that are recognized and used in reading and writing.

Second, word knowledge is composed of two forms, receptive and productive.

1. Receptive Vocabulary includes words that are recognized when we hear or see them. It is the ability to comprehend passive vocabulary which is used in reading and listening context.
2. Productive vocabulary includes words that are recognized when we speak or write. It is an active ability which is used in speaking or writing.
Furthermore, knowing and understanding words mean knowing their "form" (how they sounds, how they spelt, grammatical change that could be made to them), their "meaning" (their conceptual content, and how they relate to other words and in particular types of language use (Cameron, 2001).

- Relationship between Reading Comprehension and Vocabulary Mastery

The correlation between reading comprehension and vocabulary mastery has been discussed by many experts. Hirsch (2003) found that knowing at least 90 percent of the words of a text enables the reader to get the main idea from the reading and guess correctly what many of the unfamiliar words mean, which will help them learn new words. Yildirim, Yildiz and Ates (2011) found that there was a significant correlation between vocabulary and comprehending expository texts as well as vocabulary and comprehending narrative texts. The findings also show that vocabulary is a predictor of comprehending narrative and expository texts.

Roehrig and Guo (2011) explain that vocabulary knowledge is one of the major factors that influence reading comprehension. It is also supported by Sedita
(2005) who states that vocabulary knowledge is crucial in reading comprehension and determining how good the students are in comprehending the texts.

## Research Methodology

The technique used to collect data in this study is achievement test. Achievement test is a test meant to measure acquisition of skill (Algarabel and Dasi, 2001). Through this technique, the information about students' ability in reading comprehension and vocabulary mastery is expected to be obtained.

The test contains 50 questions, twenty five questions are the questions to measure students' reading comprehension and the other twenty five are to measure students' vocabulary mastery. The test was taken from 2006-2010 UAN test items (UAN questions is a standardized test for Indonesian students). So, it is reasonable to be an instrument in this research. It was constructed in multiplechoice questions.

- Students' Reading Comprehension Score

After calculating the data from achievement test, the result shows that 11 students were included into excellent category. It indicated that most of the students have good reading abilities. They have abilities and strategies of reading. Almost all reading questions can be answered by the students in this category. There were 9 students included into good category. This category shows that students have the ability to comprehend the texts but not as well as students in the excellent category. There were 10 students included into average category. In this category, the ability and strategy of students in comprehending a text are not good enough. Especially on implicit questions, a lot of students cannot answer correctly. There were 4 students included into poor category.

Figure 1 Types of Reading items


From the data of reading comprehension, implicit questions are more difficult to answer. It is proven that two implicit questions (question no 1 and 12) are included into difficult category, two implicit questions (question no 3 and 27) are included into moderate category and the rest of questions are included into easy category. In explicit questions, there is no question included into difficult category and only one question included into moderate category, which is question number nineteen i.e. about general truth. The rest of questions are included into easy category.

One of the examples of explicit question is number thirteen. See the question bellow.
"Where did they buy shirts and dresses?"

This question can be answered directly from the text. 32 students chose the right answer.

One of the examples of implicit question is number one. See the question bellow.
"According to the text, we know that Mr.Johan's hair is?"
In this question students must use their understanding of the text to get the right answer. This question seems difficult for the students, because a lot of students had wrong answer.

Background knowledge seems to help the students to understand the text. Hedgecock \& Ferris (2009) state that background knowledge is unquestionably helpful for students in their reading, since it is necessary to have adequate knowledge to encounter a reading task. It is proven that in the second text (questions no 7 and 8) which is about cat and fourth text (questions no 16-23) which is about octopus. In the second text, there are $80,88 \%$ students who could answer the questions correctly and $75,21 \%$ students who could answer the fourth text correctly. The text about octopus and cat would be more familiar for the students than the other text i.e. about Mr. Johan's family (first text), someone's experience (third and sixth text) and research on animal (fifth text).

- Students' Vocabulary Mastery score

After calculating the data from achievement test, the result shows that 6 students were included into excellent category, 11 students were included into good category, 4 students were included into average category and 13 students were included into poor category. It indicates that the students' vocabulary knowledge in this study were not good enough. A lot of students were included into poor category.

Figure 2 Types of Vocabulary items


Figure above shows that students have difficulties in completing the sentence. The percentage of completing the sentence from all categories of students is the lowest. It may be caused by the synonym/antonym test items, students only need to know one word in the question for example question number 15 . See the question bellow:
"I was too tired but I was happy". The underlined word has the same meaning as?"

The students only need to know the synonym of "tired". They do not need to understand the meaning of other words. It makes them easy to answer the question.

It is different with the completing sentence item test. They need to understand all the words in the question sentence. For example question number 41. See the question bellow.
> "My name is Charley. I am a ...... from the Surabaya Post. May I interview you about your company?"

In this question students need to know all the words in the sentence. That is why completing sentence is more difficult to answer than synonym/antonym question.

- Correlation Coefficient

Since this research is normally distributed, the computation of correlation employed the Pearson Product Moment formula (Sudjana, 1996). After calculating the data, it was found that the correlation coefficient $(\boldsymbol{r})$ is $\mathbf{0 . 7 2 0 5}$, and then it was necessary to find out its strength to follow Arikunto (2003).

The correlation coefficient is 0.7205 , it could be considered as a strong correlation since the result was included into strong category (Arikunto, 2003). In addition to the ability of students' vocabulary mastery, the strategy and background knowledge of the text help students comprehend the text.

In improving students reading comprehension, teacher should teach vocabulary to their students since vocabulary has strong relationship with reading comprehension. Having a lot of vocabulary makes the students understand the text easily. Although strategy of reading and experience of students help them in comprehend a text, but vocabulary mastery is more important in helping the students to comprehend the text. It is in line with Hirsch (2003) who describe that knowing at least 90 percent of the words enables the reader to get the main idea from the reading and guess correctly what many of the unfamiliar words mean.

## Conclusion

This study focuses on the correlation between students' reading comprehension and their vocabulary mastery. This study also attempts to find out the students' ability in reading comprehension and vocabulary mastery.

Referring to the findings and discussions that have been elaborated in the previous chapter, it is found that there is a strong correlation between students' reading comprehension and their vocabulary mastery. Although the scores of reading and vocabulary test are different but the correlation is strong. It may be caused by the difficult vocabulary in test items. Students who have high scores in reading also have high score in vocabulary.

There are many factors that help students to comprehend the reading materials. The result shows that the factors are students' background knowledge and experiences. Those factors may help students comprehend reading materials. When they found unknown words they could guess the meaning of unknown words by referring them to the text.

## - Suggestions

After drawing the inferences, there are several suggestions that hopefully can give the constructive ideas for the readers, especially for English teachers and future researchers.

Most of English teachers tend to consider that using Indonesian in English class can hamper their students' ability in using English. Considering to the result that many students lack of vocabulary knowledge, it is recommended to use English in English classes, since it facilitates the students to learn materials efficiently. By using English as medium of instruction, it helps students increase their vocabulary knowledge. Although using Indonesia language is also needed in English class to overcome the misunderstanding that may occur in mostly second language settings. The teachers may want to use different methods in teaching reading skill to make English class more interesting and fun.

Furthermore, the further researchers can focus on other issues in reading, such as reading strategies in improving reading comprehension. Besides, the further researchers can also investigate the correlation between students'
vocabulary mastery and their reading comprehension more depth to reinforce the result of this research and find out the better result.

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