THE CORRELATION BETWEEN VOCABULARY MASTERY AND READING COMPREHENSION ACHIEVEMENT

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Abstract: Reading is one of the four skills in Senior High School. Instructing reading is a challenge to the teacher because it is such a complex process. Reading is not a general ability but a composition of many specific abilities. It is therefore necessary to break down general comprehension into specific skills that constitute it. The purpose of reading comprehension is to get information upon a reading text. Reading also means to comprehend the meaning from words that already known in order to increase vocabulary. But as the matter of fact, many students face difficulty in comprehending English text and the students still have difficulty in memorizing vocabulary. Furthermore, to understand English reading text the students have to have a good command of vocabulary, each word students add to their vocabularies make them a better reader. The objectives of this research are to describe vocabulary mastery and the reading comprehension achievement and to describe the correlation between vocabulary mastery and reading comprehension achievement. The subject of this research is 32 students of class X3 SMA Muhammadiyah 1 Metro. The result of this research shows that there is positive and significant correlation between vocabulary mastery and reading comprehension achievement. It is proven by the value of correlation coefficient (0.818) which is higher than the value of \( r \) –table (0.349). It means that the rise of the students’ vocabulary mastery will be followed by the rise of reading comprehension achievement.

Key words: achievement, reading comprehension, vocabulary

The aim of teaching English in Junior High School is to develop the four skills namely listening, speaking, reading and writing. The teacher should present them integratedly. Anyhow, in this research we focus in reading skill. Reading is a challenge to the teacher because it is such a complex process. Reading is not a general ability but a composition of many specific abilities. It is therefore necessary to break down general comprehension into specific skills that constitute it. The purpose of reading comprehension is to get information upon a reading text, as well as to comprehend the meaning from words that already known in order to increase the student readers’ vocabulary. But as the matter of fact, many students face difficulty in comprehending English text and the students still have difficulty in memorizing vocabulary. Furthermore, to understand English reading text the students have to have a good command of vocabulary. This good command of vocabulary will make them fluent in reading and can catch new vocabulary through context. Each word students add to their vocabularies make them a better reader.

To describe the students’ vocabulary mastery and their reading comprehension, the researchers did pre survey. The researchers interviewed the English teacher about students’ vocabulary mastery connected to their reading comprehension. The result of the pre survey can be seen in the table 1.1 below.
Table 1.1 The score of vocabulary mastery test of the second semester students (X3) of SMA Muhammadiyah 1 Metro academic year 2009/2010

<table>
<thead>
<tr>
<th>No.</th>
<th>Score</th>
<th>Students</th>
<th>Percentage %</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>≥ 60</td>
<td>3</td>
<td>30%</td>
<td>Master</td>
</tr>
<tr>
<td>2.</td>
<td>&lt; 60</td>
<td>7</td>
<td>70%</td>
<td>Not Master</td>
</tr>
<tr>
<td>Total students as example in pre survey</td>
<td>10</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: The score list book of English of the second semester students (X3) of SMA Muhammadiyah 1 Metro academic year 2009/2010 (based on KKM)

And to know about score of reading comprehension achievement of the students, the teacher gave information as mentioned in table 1.2. below.

Table 1.2 The score of reading comprehension achievement test of the second semester students (X3) of SMA Muhammadiyah 1 Metro academic year 2009/2010

<table>
<thead>
<tr>
<th>No.</th>
<th>Score</th>
<th>Students</th>
<th>Percentage %</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>≥ 60</td>
<td>4</td>
<td>40%</td>
<td>Master</td>
</tr>
<tr>
<td>2.</td>
<td>&lt; 60</td>
<td>6</td>
<td>60%</td>
<td>Not Master</td>
</tr>
<tr>
<td>Total students as example in pre survey</td>
<td>10</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: The score list book of English of the second semester students (X3) of SMA Muhammadiyah 1 Metro academic year 2009/2010 (based on KKM)

The table 1.1 and table 1.2, show that study result of vocabulary mastery and reading comprehension achievement are still low. The tables reflect that there are 70% of students are less in vocabulary mastery and 60% of them are less in reading comprehension achievement.

The objectives of this research are to describe the vocabulary mastery and the reading comprehension achievement and to describe the correlation between vocabulary mastery and reading comprehension achievement.

Vocabulary as one of the language aspects has to be learned when people are learning a language. Good mastery of vocabulary, of course besides grammar, is important for anyone who learns the language used in listening, speaking, writing, and reading. A learner of the foreign language will speak fluently and accurately, write easily, or understand what he or she reads or hears if he or she has enough vocabulary and has a capability of using it accurately. It is obvious that vocabulary is very important in learning a language, especially English, because the English vocabulary is extremely large and varies as well. Therefore, it is highly essential for English teachers to help their students in mastering vocabulary.

Thornbury gave the illustration of the importance of vocabulary as follows: Without grammar very little can be conveyed, without vocabulary nothing can be conveyed. Most learners, too, acknowledge the importance of vocabulary acquisition. However, vocabulary teaching has not always been very
responsive to such problems, and teachers have not fully recognized the tremendous communicative advantage in developing an extensive vocabulary. (2002: 13).

An investigation of knowledge is broadened and well-informed by reading. Reading is really crucial because our knowledge is usually broadened and informed by reading activities, and the activity of reading can be found in various media such as book, magazine, newspaper, journal, and nowadays the internet. Students should practice their reading more and more, so that their reading ability and their reading experience will be improved. They may find difficulty and frustrating, but if they keep practicing, they will have a good sense of English and will help them to grasp the total meaning of the words.

According Anthony, Pearson, and Raphael (1993) in Setiyadi (2007) “Reading is the process of constructing meaning thorough the dynamic interaction among the reader’s existing knowledge, the information suggested by the written language, and the context of the reading situation. According to Djuharie (2008: 12), there are two reasons why we read: reading for pleasure and reading for information.

Referring to elaboration above, the researchers would like to formulate the hypothesis as the following: there is positive correlation between the students’ vocabulary mastery and their reading comprehension achievement.

**METHODOLOGY**

In completing data, the researchers use the field research. In the field research, the researchers conduct the research to the students at the second semester of SMA Muhamamadiyah 1 Metro. The researchers give tests to the students. Before the tests were given, firstly the researchers would like to try out the test instrument.

This research uses the correlation method, with the analyzing the data, the researchers use inferential statistics. The inferential statistics is used to answer the question whether there is a positive and significant correlation between the students’ vocabulary mastery and their reading comprehension achievement. To know the relationship the researchers applied three tests. They can be seen below:

**Normality test**
The test is aimed at seeing whether the data are normally distributed or not, the researchers used Lilliefors formula, that is, \( F (Z_i) - S (Z_i) \), in which the biggest score is taken as Lilliefors ratio. The criteria are as follows:

\[ Ho = L\text{-ratio} \leq L\text{-tab} \quad \text{normal} \]

\[ Ha = L\text{-ratio} \geq L\text{-tab} \quad \text{not normal} \]

(Sudjana, 1992: 263)

**Linearity test**
The test of linearity is aimed at seeing whether the relationship between the two variables is linear or not.

The formula is as follows:

\[ F_{reg} = \frac{RK_{reg}}{RK_{res}} \]

In which:

\( F_{reg} \) : the value of F regression  
\( RK_{reg} \) : the square mean of regression  
\( RK_{res} \) : the square mean of residual

**Hypothesis test**

In this research, the researchers use the correlation of Product-moment (Arikunto, 2009:70), to know whether there is a positive and significant correlation
The correlation between vocabulary mastery and reading comprehension achievement. The formula used is as follows:

\[ r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2)}} \]

In which:
- \( r_{xy} \): Correlation coefficient between each items and the total scores.
- \( X \): The sum of X scores (vocabulary mastery).
- \( Y \): The sum of Y scores (reading comprehension achievement).
- \( N \): The number of cases.

Furthermore, to find out the effective contribution of vocabulary mastery toward reading comprehension achievement, the researchers use linear regression analysis.

\[ Y = a + bX \]

In which:
- \( Y \): Independent variable
- \( X \): Dependent variable
- \( a \): Constant
- \( b \): Regression coefficient

**FINDING**

By observing the result of the descriptive analysis of the students’ vocabulary mastery it can be concluded that the first year students of SMA Muhammadiyah 1 Metro in the 2009/2010 academic year have low level of vocabulary and reading achievement.

The result shows that the empirical mean achieved by the students is lower than the ideal mean (9.22<10.00). From 20 items, the highest and lowest scores obtained are 16 and 5 respectively with the mean score of 9.22 and standard deviation of 2.83. Another consideration, most of the students get score under the ideal mean. The data analysis indicates that there are 19 students or 59.38% that get score under the ideal mean and 13 students or 40.62% who can achieve score above the ideal mean.

Moreover, the students’ reading comprehension achievement is categorized into low level. Among the 32 students, 59.38% or 19 students get score under the ideal mean and 40.62% or 13 students have score above the ideal mean. Besides, the empirical mean gained by the students is lower than the ideal mean (9.31<10.0). It is clear that the students’ reading comprehension achievement is still low. Based on the data analysis calculated by the computer, it can be obtained that there is a positive and significant correlation between the students’ vocabulary mastery and reading comprehension achievement. It is proven by the value of correlation coefficient \( r \) which is higher than the value of \( r \)-table (0.818>0.349) at the significant level 5% and \( N=32 \).

The positive correlation can be proved by the positive score of correlation coefficient (0.818). It means that the better the students’ vocabulary mastery is, the better the students’ reading comprehension achievement will be. On the other hand, the worse the students’ vocabulary mastery is the worse the students’ comprehension achievement will be.

To describe how high the correlation between two variables is, the researchers utilize the table of \( r \) score interpretation (Arikunto, 2009: 75). Based on the table, it can be concluded that the correlation between the students’ vocabulary mastery and their reading comprehension
achievement is high because it is in the range of 0.80 – 1.00.

Moreover, the effective contribution of the students’ vocabulary mastery toward the students’ reading comprehension achievement is 67.0%. It means that among many other independent variables, the students’ vocabulary mastery gives the effective contribution of 67.0 percent toward the raise of reading comprehension achievement.

In reality, the students’ vocabulary mastery is necessary to improve for the sake of raising the reading comprehension achievement. When the student has good vocabulary mastery and their reading comprehension achievement is still poor, it is caused by other factors that have higher influence in increasing the students’ reading comprehension achievement. Therefore, the success of increasing the students’ reading comprehension achievement is not only determined by the students’ vocabulary mastery but also other factors which are not discussed in this research.

**CONCLUSION AND SUGGESTION**

Based on the research findings, the conclusion is drawn as follows: There is a positive and significant correlation between the students’ vocabulary mastery and their reading comprehension achievement. It is proven by the value of correlation coefficient (0.818) which is higher than the value of r table (0.349). It means that the increase of the students’ vocabulary mastery will be followed by the increase of reading comprehension achievement.

Based on the conclusion, the researchers would like to propose some suggestions which will be useful for the teachers and the students. The teacher should use effective and various methods to improve the students’ vocabulary mastery so that their reading comprehension achievement will increase. The teacher may use games to teach vocabulary.

To the students, since vocabulary mastery correlates positively and significantly toward reading comprehension achievement, the students should have good vocabulary. They can encourage their vocabulary mastery by doing much exercise. It can be applied in listening, speaking, reading, and writing. By doing much exercise, their vocabulary will be saved permanently and active in their mind.

**REFERENCES**


Terry, Ronald. et. al. (2002). *Definition of Students Competencies and Plan to Assess Student Mastery Level*. USA: TEMPUS Publications
