

## THE CORRELATION BETWEEN STUDENTS' VOCABULARY MASTERY AND READING COMPREHENSION AT THE SECOND GRADE OF SMA NEGERI 10 KOTA TERNATE

Surtilla Abdullah<sup>1</sup>, Suraya Mukadar<sup>2\*</sup>

<sup>1</sup> SMAIT Insan Kamil, Halmahera Selatan, Maluku Utara, Indonesia

<sup>2</sup> Universitas Iqra Buru, Namlea, Maluku, Indonesia

Institution address, Maluku, 97571, Indonesia

Corresponding author e-mail: <sup>1\*</sup> [surayamukadar880@gmail.com](mailto:surayamukadar880@gmail.com)

**Abstract.** This research is purposed to know the correlation between vocabulary mastery and reading comprehension at the second grade of SMA N 10 Kota Ternate. There are two variables in this research. Students vocabulary as independent variable (variable X) and Reading comprehension as dependent variable (Variable Y). The population of this research was all second grade of SMA N 10 Kota Ternate while the sample of the research were 30 respondents that taken from class 2 IPA<sup>1</sup>. This research used convenience sampling and applied quantitative descriptive with Pearson's r correlation coefficient technique to analyze the data. The data were collected by using a test. The test consist of 30 items of vocabulary mastery test and 30 items of reading comprehension. The result of the research found that there is a significant correlation between vocabulary mastery and reading comprehension is 31.77. While in Pearson's r table with the degree of significance 5% is 0.367. It means that correlation coefficient of 31.77 is significant and the null hypothesis is rejected because  $r_{xy} > r_t = 31.77 > 0.367$ . In other words, the alternative hypothesis that stated there is significant correlation between vocabulary mastery and reading comprehension is accepted. the suggestion of this research is that in developing the vocabulary mastery and reading comprehension teacher should encourage the students to have and use dictionary as a tool to help them with difficult words and the teacher should support the students expectation about reading and arouse their interest to increase their reading comprehension.

**Keywords:** Vocabulary Mastery, Reading Comprehension, SMAN 10 Ternate

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## 1. INTRODUCTION

Nowadays, English language is very important in our lives. This language is used world-widely in sciences, knowledge and technology as well as education, business and other activities in the world. In the past, the Indonesian students start learning English at junior high school as a compulsory subject. The process continues to senior high school. In fact, English is also taught in some elementary schools as the local content lesson and even in some kindergartens, the pupils are introduced to some English vocabulary. In studying English out grammar very little can be conveyed, without vocabulary nothing can be conveyed. Therefore, to a great extent, students' ability of listening, speaking, reading, writing and translating is influenced by the vocabulary. Teaching vocabulary is a process, but teaching vocabulary aims are clear: not only make college students memorize words as much as possible, but also make the students master vocabulary and train their ability of guessing words' meaning from contexts.

Vocabulary is central in learning language. We cannot speak without vocabulary. It is one of the basic elements of English subject. We will not have skill in English without mastery of vocabulary. It also plays an important role in four skill of English. Through mastery vocabulary, the students can communicate with the people well especially foreigner, we need to have adequate vocabulary. Vocabulary is one of English components or sub skill that must be taught to the learners, because vocabulary has the primary role for all languages. In other words the first that to be master for language learner in learning language especially English is vocabulary.

Reading is one of the important language skills. By reading, people may get a lot of information. Reading is a good thing in life because it is a factor of great importance in the individual development and the most important activity in school. It is needed in every level of field of study. Particularly in cases when students have to read English materials for their own special subject. Reading comprehension and vocabulary mastery have a strong relationship. 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. The research problems that occurred from students. In this matter, The students vocabulary still lack. So, it can influence the students' reading comprehension. The problems are found by the researcher when the researcher made an observation to the school on April 17 2016. In the observation the researcher entered to the class together with the English teacher of Madrasah Aliyah 1 Kota Ternate and sit behind the students' and observed them when the teacher do English teaching process.

This research will take the tittle *The Correlation Between Students' Vocabulary Mastery and Reading Comprehension at SMA Negeri 10 Kota Ternate*.

### 1. Vocabulary

Vocabulary is an important aspects in our life. It is because people need vocabulary in expressing their ideas both of in mother tongue and foreign language. Vocabulary cannot be separated from the language. it is important part of language. Vocabulary is a component of a language that maintains all of information about meaning and using word in language. Tankersley [1] stated that vocabulary is the meaning and pronunciation of words that we use in communication. It is simply the number of words that we understand or can actively use to listen, speak, read, or write. Each person has four different vocabularies: listening, speaking, reading, and writing. An individual listening vocabulary is the largest and first to develop, followed by the speaking or oral vocabulary. The reading vocabulary is third to develop followed by our writing vocabulary. For high-volume readers, the reading vocabulary may even become the largest storehouse of word recognition. Each vocabulary set continues to grow and develop with time.

Hanson and Padua [2] vocabulary refers to words we use to communicate in oral and print language. In order to communicate effectively using oral and print language, we must be able to flexibly use words that we recognize and understand.

From all the explanation above, can be say that vocabulary is the total numbers of words, a list or set of words in a particular language that a person knows or uses.

## **2. Vocabulary Matery**

Vocabulary and mastery are parts of set in learning vocabulary, mastery is clearly shown by learners' ability in expressing vocabulary that known with understanding. It is also shown by their ability of making sentences using vocabulary. Vocabulary mastery is purposed of learning vocabulary, because when learners mastery vocabulary they are able to use it in daily life.

Vocabulary mastery is important for language learners in learning the whole language. Willkins (2008) in Yudiati [3] says that "When students build vocabulary mastery, they can more effectively communicate their ideas, knowledge and voice". When learners try to develop their vocabulary mastery, their thinking and understanding of speaking will improve. Then, they can communicate effectively. Swannel (1994) in Anisa (2009:169) defines mastery as comprehensive knowledge. Vocabulary mastery is a complete skill to understand and apply the stock of words. It constitutes an essential thing that students have in order to be able to listen, read, write, and speak.

From the definition above, it can be concluded that vocabulary mastery is important for the students. vocabulary mastery can be defined as a number of vocabulary (words) in a language which contains information about its meaning, form, and usage in context of communication. It is the basic knowledge that students should master first before mastering English. Vocabulary learning is a principal issue for English learning because it comprises the basic building blocks of English sentences

## **3. Types of Vocabulary**

Hatch & Brown (1995) in Setiawan [4] divides two kinds of vocabulary, namely receptive and productive vocabulary.

### **a) Receptive Vocabulary.**

Receptive vocabulary is words that the learners recognize and understand when they occur in context, but which can not produce correctly. It is vocabulary that the learners recognize when they see it in reading context but do not use it in speaking and writing. The receptive vocabulary is also called a passive process because the learner only receives thought form others. In language application, the receptive vocabulary is considered the basic vocabulary. It is much larger than productive vocabulary because there are many words recognized when the learner hears or reads but do not use when he speaks or writes.

### **b) Productive Vocabulary .**

Productive Vocabulary is the words, which the learners understand, can pronounce correctly, and use constructively in speaking and writing. It involves what is needed for receptive vocabulary plus the ability to speak or write the appropriate time. . Therefore, productive vocabulary can be addressed as an active process, because the learners can produce the words to express their thought to others

## **4. Importance of Vocabulary.**

Harmer (2002:13) says that without grammar very little can be conveyed; without vocabulary nothing can be conveyed. It has to be realized that the students' ability to read, to write, to listen, and to speak is conditioned by their vocabulary. In reading ability, vocabulary helps learners in comprehending the text. In writing, it helps them to expand their ideas based on the topic sentence that they want. In listening, they comprehend and understand what other person speaks. In speaking ability, vocabulary facilitates the learners to explain their ideas orally. vocabulary is central and critical importance to typical language learner

Gower (1995) in Sariatun [5] vocabulary is important to students'. It is more important than grammar for communication purposes, particularly in the early stages when students are motivated

to learn to the basic words they need to get by in language. Also, as the lexical system is 'open', there's always something new to learn when students have 'done' the grammar. So more advanced students are motivated to add to their vocabulary stock, to understand nuances of meaning, to become more proficient in their own choice of words and expressions.

## **5. Reading**

Reading as an activity in which the readers respond to and make sense of a text being read connected to their prior knowledge. The activity is done by the readers as they want to get information and knowledge from the text mean while the readers have their own background knowledge. According to Nuttal (2000) in Kusriani [6] reading means a result of interaction between the writer's mind and the reader's mind. It is the way how the reader tries to get the message or the intended meaning from the writer. In this process, the reader tries to create the meanings intended by the writer, the reader can get the message, and the writer's meaning sense. According to Pang [7] reading is defined as understanding written texts. Word recognition is defined as the process getting how written symbols correspond to one's spoken language while comprehension is the process of making the meaning of words, sentences and connected text

From all the explanation above, can be say that reading is a means of language acquisition, communication and sharing information and ideas.

### **1) Reading Comprehension**

McNamara [8] comprehension is not always effortless and fast, of course. When beginning readers struggle over individual words, reading is slowed to a near halt and deeper levels of comprehension are seriously compromised. Tankersley [1] reading comprehension is dependent on three factors. The first factor is that the reader has command of the linguistic structures of the text. The second factor is that the reader is able to exercise metacognitive control over the content being read. This means that the reader is able to monitor and reflect on his or her own level of understanding while reading the material. The third and most important criterion influencing comprehension is that the reader has adequate background in the content and vocabulary being presented

According to [9] in [10] reading comprehension is a process of interaction between readers and what they bring to the text, such as their prior or background knowledge and strategy use. From the definition above, reading comprehension can be defined as the process in which the readers construct meaning from a text connected to the background knowledge they have to get the clear understanding of the writer's message.

### **2) Types of Reading**

There are two types of reading, they are intensive reading and extensive reading.

#### **a) Intensive reading**

Intensive reading according to Nuttall (1996) in Rahman [11] is to arrive at an understanding, not only of what the text means, but of how the meaning is produced. The 'how' is as important as the 'what', for the intensive lesson is intended primarily to train strategies which the student can go on to use with other texts. Intensive reading is much effective for the development of the reading skills of students since "most of the reading skills are trained by studying shortish texts in detail. intensive reading is more useful than extensive reading. He has advised that the students make their reading 'meditative, reflective, and personal'

#### **b) Extensive Reading**

Extensive reading is a way of language learning, including foreign language learning, though large amounts of reading. As well as facilitating acquisition and learning of vocabulary, it is believed to increase motivation through positive effective benefits.

#### **c) The Importance of Reading**

Reading is the way to get information from written media. Students will get knowledge by reading activities to motivate their learning, not only in formal education, but also in informal education.

Teaching reading is very important for students. There are some reasons for this. The first reason is many English students need to read English text for their career, for study or simply for pleasure. The second reason is reading text also will help the students when they study writing.

Generally, reading can be defined as an interaction with a printed message. It means that reading is not passive action; there is some intellectual energy to be expanded. Reading is the art of transmitting the ideas, facts and feelings from the mind and soul of a reader, with accuracy and understandings, and much more. Harris and Graham [9] reading the words correctly is not enough; you have to understand what they say. In fact, you not only need to understand what they say but also must be able to go beyond the literal meaning of the text, think critically about the message, appreciate what the author is trying to say, and understand when you do not understand. Unfortunately, too many children experience difficulty mastering these fundamental reading processes and skills.

#### **d) Correlation Between Vocabulary and Reading**

Vocabulary knowledge is one of the major factors that influence reading comprehension. Tankersley [1] the relationship between vocabulary knowledge and reading comprehension is consistently strong and has been recognized as a contributing factor for academic success through studies. Roehrig and Guo [12] 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. From the explanation above, can be say that vocabulary and reading cannot be separated, because both of them relate to each other. Vocabulary is very important to reading comprehension. Students cannot understand what they are reading without knowing what most of the word.

## **2. RESEARCH METHODS**

The method of this research is quantitative method . it means that this research is quantitative research. According to Kothari [13] quantitative research is based on the measurement of quantity or amount it is applicable to phenomena that can be expressed in terms of quantity. Researcher applied quantitative method with the analysis of product moment for data analysis and described the correlation of two variable, Variable X and variable Y.

The first variable is the students vocabulary score which is took by how many vocabulary that they know from the test gave; it is considered as independent variable (variable X). The second variable is their Reading comprehension score which is took from their comprehension in reading with the texts; and it is considered as dependent variable (variable Y). The population in this research was the student in the second grade of SMA Negeri 10 Kota Ternate. There are five class, namely class IPA<sup>1</sup>, IPA<sup>2</sup>, IPA<sup>3</sup>, IPS<sup>1</sup> and IPS<sup>2</sup>. The total number of the population is 192. Sample is a part of population which is investigated. According to Sugiyono [14] sample is part of the number and characteristic of the population. The sampling technique using in this research is convenience sampling. A sample of convenience is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher. So the researcher took 30 students from class IPA<sup>1</sup> as a sample.

In this research, there are two kinds of instrument, they are: vocabulary test and reading comprehension test consist of 60 items. 30 items for vocabulary test and 30 items for reading comprehension test. in this case, the researcher used multiple choice type for both the vocabulary and reading comprehension. The analysis of data To find out the influence of the students' vocabulary to their reading comprehension, the researcher used pearson's product moment correlations. The formula of pearson's product moment correlation is:

$$r_{xy} = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$$

where :

(Sugiyono (2014))



$r_{xy}$  = the correlation coefficient

$\sum xy$  = sum of the multiplication between variable x and y

$\sum x^2$  = sum of the standard deviation of variable x

$\sum y^2$  = sum of the standard deviation of variable y

criteria:

If  $r_h \geq r_t$  means there is significant correlation between vocabulary mastery and reading comprehension

If  $r_h \leq r_t$  means there is no significant correlation between vocabulary mastery and reading comprehension.

With the level of significant 5% with degree of freedom (DF=N-1). The result of calculation (correlation coefficient) interpreted in terms of the following criteria as stated by sugiyono [14]

Interval coefficient	Correlation level
0,00-0,199	Very low correlation
0,20-0,399	Low correlation
0,40-0,599	Moderate correlation
0,60-0,799	High correlation
0,80-1.000	Very high correlation

### 3. RESULTS AND DISCUSSION

Tankersley [1] the relationship between vocabulary knowledge and reading comprehension is consistently strong and has been recognized as a contributing factor for academic success through studies. Roehrig and Guo [12] 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.

There are two kinds of instrument that the reseacrcher used, there are vocabulary test and reading comprehension test consist of 60 items. 30 items for vocabulary test and 30 items for reading comprehension test. The researcher collected the data by giving the students multiple choice tests of vocabulary and reading comprehension questions. The researcher intended to know the correlation between vocabulary mastery and reading comprehension from the result of the test. Vocabulary has positive contribution in reading comprehension. The large size of vocabulary determines the students’ comprehension in predicting the meaning of words in reading. It is proved in this research where the students who had very well achievement in vocabulary test also had the better comprehension in reading test. To achieve a good comprehension in reading, the students need a lot of vocabulary to be mastered. Vocabulary is merely than a list of words. Some words may appear to be simple to refer to one to thing but some words may have more than one meaning, it may be changed depends on the words that they are attached. Therefore, in mastering vocabulary, the students are not enough only to know the meaning of the word, but they must understand the word when it is applied in a context; In what patterns the word occurred, what words or types of words be expected before and after the word

Not only vocabulary that has contribution in reading, but reading also has contribution in vocabulary growth. The more students read the more vocabulary they acquire. Reading does not simply involve finding information on the text itself. Rather, it is a process of working with the text. In other words, reading involves the process of perceiving how written symbols come true with one’s spoken language and the process of making sense of words, sentences, and text. Therefore, through reading, students try to develop their understanding of the word occurred in the text.

In this research, the researcher found that vocabulary mastery has a significant contribution to the reading comprehension. It can be proved by the calculation which obtained the value of  $r_{xy}$  is 82.49. The degree of freedom (df) is  $30-1=29$ . In the table significance of 5% (see appendix), it obtain 0.367. After comparing the value of  $r_{xy} = 31.77$  and  $r_t = 0.367$ , the researcher eventually made the assumption of the hypothesis that  $r_{xy}$  is bigger than  $r_t$  or  $31.77 > 0.367$ .

The test of hypothesis :

$r_{xy} > r_t$  : there is a significant correlation,  $H_a$  is accepted and  $H_o$  is rejected

$r_{xy} < r_t$  : there is no significant correlation,  $H_a$  is rejected and  $H_o$  is accepted.

The result of hypothesis is  $r_{xy}$  is bigger than  $r_t$ . therefore, the alternative hypothesis is accepted and the null hypothesis is rejected. it means that there is significant correlation between vocabulary mastery and reading comprehension. The value 31.77 indicates very high correlation between vocabulary mastery and reading comprehension.

## **1. CONCLUSIONS**

Based on the research findings, the researcher concludes that there is a significant correlation between vocabulary mastery and reading comprehension. This is showed by the data that the value 31.77 indicates very high correlation between vocabulary mastery and reading comprehension. The calculation means that alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_o$ ) is rejected. It can be seen from the result of  $r_{xy}$  is 31.77 with the degree of freedom (df) is 29. The result of  $r_t$  on the degree of significance of 5% is 0.367. So  $r_{xy}$  is bigger than  $r_t$  ( $31.77 > 0.367$ ). The vocabulary mastery has a significant contribution to the reading comprehension. The second grade of SMA Negeri 10 Kota Ternate will get high score in reading if they have high score in vocabulary. Otherwise, students who have lower score in vocabulary, they will get the lower score in their reading.

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