

The Relationship between Vocabulary Knowledge and Reading Comprehension Ability of Junior High School Students

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Abstract

This research aimed to discover the relationship between students' vocabulary knowledge and their ability to comprehend text. The researchers in this study employed a quantitative approach. Students from SMPN 1 Liliraja's ninth-grade class participated in this study. Purposive sampling was used to collect the data. The correlation between the two variables was determined by comparing the obtained data. Students' vocabulary mastery and reading comprehension were found to have a strong correlation. The possibility of the correlation value. (2-tailed) becoming 0.000, which is below the significance level, can be verified (0.05). As a result, the researchers can rule out the null hypothesis (H₀) and accept the alternative hypothesis (H_a). Because the value is 0.698, it can be concluded that students' vocabulary knowledge and reading comprehension have a significantly strong correlation (0,61-0,80).

Keywords: *Correlation, Vocabulary Knowledge, Reading Comprehension.*

1. Introduction

Reading is an essential part of learning because it allows students to process all of the knowledge, experiences, and views contained within books. Additionally, students' ability to learn and teachers' ability to teach languages are both enhanced by reading text. It facilitates students in discovering new vocabulary, grammar, and punctuation in a meaningful context. Harbert & Digaentani (1984: 59) stated that "reading is also significant to everyone who needs to be aware what's happening in a career, to not mention the phrase by reading consistently. Your professional knowledge and understanding will grow as a result, and you should be able to express everything you know more fluently".

As mentioned by Brown (2004: 185), "most formal examinations use the written words as a stimulation for the test taker response; even oral interviews may involve the accomplishment of some tasks in reading." Reading is the most critical skill for success in educational situations, and it remains so when we build an assessment of basic language competence". Learning a language relies heavily on comprehending and understanding what you are reading. The question that most often arises in our heads is what might make students not read well. Students find it hard to read because they don't have a lot of words. Many people believe that vocabulary is the most crucial component of learning and mastering a new language.

The importance of vocabulary cannot be overstated in the process of learning a new language. Future opportunities and the quality of people's lives are greatly impacted by their command of a language's vocabulary (Beck, et al, 2002). There are several reasons why people choose to read a piece of writing, but the most common one is because they want to understand what the author is trying to say. Students must have a strong foundation in the subject matter and a vocabulary large enough to comprehend what the researcher has to say. Vocabulary is one of the most crucial aspects of language learners. Someone can communicate, learn and think through this vocabulary knowledge. Vocabulary knowledge is essential to support some learners in mastering English, especially in reading comprehension because the ability of students to comprehend the text is relatively determined by their vocabulary knowledge. This means that anyone learning a language must have a strong command of the vocabulary that is used in speaking, writing, and reading, in this case, especially in reading skills.

According to Olmos (2009), additional research on high school students in Murcia, vocabulary knowledge is crucial for reading comprehension. Students in their final year of high school in Murcia are the focus of this study, which aims to determine their vocabulary size. Students in a high school were tested using the Nation Vocabulary Level Test to see if their vocabulary size affected their ability to understand the text as a whole. According to the findings, students' capacity to acquire other languages is limited by having a small vocabulary. Vocabulary knowledge is directly related to the amount of vocabulary of a certain individual (Zareva, 2005). As opposed to having a broad knowledge base, someone with an extensive vocabulary will be

able to use that information to express themselves more fluently.

Zhang and Annual (2008) investigated word knowledge's role in reading comprehension with 37 Singapore secondary graders. Vocabulary learning to reading comprehension and overall competency evaluations was assessed using the VLT approach, which the researchers employed. These findings of the study reveal the 2000 and 3000-word levels. In contrast to the summary competencies, only the short-answer questions showed a significant connection. According to the researchers, differing task formats may have affected reading comprehension.

Lack of new experience or living in an economically depressed area may contribute to poor reading comprehension, according to Jitendra and Gajra (2011), cited in Harvey. The researcher wants to discover if vocabulary size significantly impacts students' ability to read, given the importance of reading abilities and the quantity of vocabulary they understand.

There are many different factors that students influence the use of reading comprehension. Therefore, the researchers choose the effect of vocabulary knowledge to be investigated during this study. Vocabulary has attracted considerable attention in recent years as a measure of linguistic proficiency. Because of its tight association with text comprehension, word knowledge is now regarded as the most significant aspect of language competency and academic achievement (Bernhardt, 2005). You cannot understand a sentence or a piece of writing if you don't know the vocabulary. Based on numerous investigations, it has been concluded that knowledge of words is critical and involves a wide range of knowledge. The issue is that students may have difficulty

understanding reading passages if they do not have a strong command of vocabulary terms.

The researchers are interested in finding out if vocabulary knowledge has a significant impact on students' ability to read, given the importance of both students' reading skills and the quantity of their vocabulary. In this research, the researchers have three research questions to be completed, but in this article, the researchers only serve one research question. The researchers want to know the correlation between vocabulary knowledge and ninth-grade students' reading comprehension at SMPN 1 Liriaja.

2. Literature Review

2. 1. Vocabulary Knowledge

The simplest way to describe one's lexical competence is to say that one has "knowledge of a term." It is based on Richard (1976) that eight principles cover all aspects of word knowledge, according to Linuwih (2012). Knowing how probably it is that you will see or hear that word in speech or print, as well as how different functions and situations limit the word's use, knowing what that word does in terms of syntactic behavior, knowing a term involves an understanding of both the word's fundamental form and its possible variants, knowledge of a word's connections to other terms in the language is essential to its comprehension, knowing the semantic significance of a word and the multiple potential interpretations of the term.

In both first-language and second-language contexts, vocabulary knowledge has been found to play a crucial influence on reading achievement. Indonesia is the setting for this research on the impact of vocabulary size on reading achievement since English is taught as a foreign language in Indonesian education.

According to Ditha (2009), the more students know about words, the better they can read. It means that if students can read well and understand what they are reading, they will also do well in reading because they know what they are reading.

2. 2. Vocabulary Size

The "vocabulary size" of a person is measured by the breadth and depth of his or her vocabulary. The size of a student's vocabulary has a significant impact on his or her ability to learn a new language. Recent research on vocabulary size found that a person's ability to comprehend text is influenced significantly by the breadth of their vocabulary knowledge. Academic achievement and reading and writing proficiency have been linked to vocabulary breadth in the last two decades of research, according to recent research (Saville-Troike, 1984) Nation & Meara, 2002), (Laufer & Goldstein, 2004).

2. 3. The Breadth and the Depth of Vocabulary Knowledge

There are a lot of studies that have documented vocabulary breadth and its critical role in reading comprehension (Qin, 2015; Laufer, 2010; Milton, 2009). Laufer (2010) defines vocabulary breadth as the number of word types or families for which a learner has at least a passing understanding of the meaning. It can also be defined as the number of words a language learner knows (Qin, 2015; Alfaki, 2015). According to Qin (2015), Laufer (2010), and Milton (2009), vocabulary breadth is an important factor in manipulating reading comprehension. Vocabulary breadth predicts reading comprehension and has a direct impact on learners' reading development (Alfaki, 2015). When learners know supplementary words, it means that their reading

comprehension ability has improved (Qin, 2015; Laufer, 2010; Milton, 2009).

Vocabulary depth, as an additional component of vocabulary knowledge, has also been demonstrated as a solution to improved reading performance, but the relationship between vocabulary depth and reading comprehension has not been extensively researched (Alfaki, 2015; Kang, Kang & Park, 2012). It is defined as the quality of a learner's vocabulary knowledge by Read (2004) and Matsuoka and Hirsh (2010), the current researchers were led to believe that, while vocabulary breadth is an important factor in determining reading comprehension, the quality of vocabulary knowledge, in addition to what is widely accepted that the breadth and depth vocabulary knowledge plays an important role in reading.

2. 4. Reading Comprehension

Reading ability has always been thought to be critical to academic success (McNamara, 2004). It is regarded as a critical component of students learning to achieve academic success (Rashidi and Khosravi, 2010). Reading is used not only as a source of knowledge and enjoyment but also as it means of consolidating and expanding knowledge (Rashidi and Khosravi, 2010; Schellings, Aarnnoutse and Leewe, 2006). Reading is the production of passage implication; it is a vigorous and deliberate procedure in which the reader's expertise and awareness interact with the features of the textbook (Schellings et al., 2006). Reading comprehension is a complex mental process that occurs between readers and texts, and it refers to the readers' language competence and topic knowledge (Liu, 2015). Comprehension is defined as a deliberate decision in which sense is constructed during interactions between a textbook and a student

(Harris and Hodges, 1995; Rashidi and Khosravi, 2010). Readers can move their topic from one to another via interactive reading processing. Top-down processing is based on our knowledge and experience (Nuttal, 2005).

2. 5. Reading Comprehension Taxonomy

The following information is provided by Clymer (1968), the first step is literal. Reading comprehension that is based on textual evidence necessitates that students locate and understand the ideas and details that are directly presented in the text itself. In the second step, we'll be reorganizing. Students at this step are expected to analyze and arrange material that is explicitly mentioned in the option. Readers can use the author's statements in various ways, such as paraphrasing or translating them. The third type of understanding is inferential. Students at this level are expected to synthesize the text's ideas with their prior knowledge, intuition, or experience, as well as other sources of information. The final step is to evaluate. By now, students should be able to use their own experiences, knowledge, and values, as well as those offered by the instructor and other authorities or sources of written information, to make evaluative judgments about what they have read. The reader's emotional and aesthetic response to a selection is considered in the fifth level of appreciation. This requires students to be both emotionally and artistically attentive to the work for them to recognize the work's psychological and artistic value. Understanding and responding to literary devices, forms, styles, and structures are all part of the process of appreciation.

2. 6. Correlation Between Vocabulary Knowledge and Reading Comprehension

According to Roehrig and Guo (2011), vocabulary knowledge is one of the most

important factors in reading comprehension. Furthermore, according to (Willingham, 2017), we have a low tolerance for unfamiliar words in the texts we read. We need to know at least 98 percent of the words to find meaning. The ability to read a word by sounding it out is a skill that many students possess. However, their comprehension of the word's meaning may not be as strong. Developing a student's vocabulary will help them better comprehend what they are reading (Trisha, 2004).

3. Research Methodology

3. 1. Research Design

In this research, the researchers used a quantitative method to determine the correlation between two variables. According to Sugiyono (2007:13), quantitative research data is presented in the form of numbers and analyzed using statistics. Quantitative analysis is a data-led methodology that offers information that can be calculated precisely and accurately. Correlational was the specific research design; this form of research is usually known as a lack of counselling or other reference groups.

3. 2. Research Instruments

The important feature of performing research is the research instrument. It helps the researchers to pay attention to the instrument they are using. The vocabulary knowledge test was the first instrument used in this research. The test measures participants' knowledge of the meaning of words, identifies synonyms and antonyms, fills in the correct term and uses the word in context. The second instrument was a multiple-choice reading comprehension test. Reading comprehension questions asked

students to identify the main idea and any supporting facts that helped to support it, make conclusions, and understand the meaning of words in context.

3. 3. Data Analysis

Students' scores on the vocabulary test and their reading comprehension scores were gathered in this research. Before taking any of these tests, students were asked to be aware of the study's performance objectives and told that their results would not influence their passing the examination. Two different sessions were used to collect data. In the first session, the vocabulary language test was administered to the participants. The second session was for the reading comprehension test. The tests were given at weekly intervals.

The correlation coefficient is one of the methods used to the data. The degree of a correlation between two variables is expressed as a correlation coefficient. The letter *r* and the Greek letter ρ are its most popular symbols. The coefficients are in the range of -1.00 to + 1.00 in value.

4. Findings

In this section, the research serves the finding of the study to answer the research question. The result is processed based on the data that has been collected. A vocabulary test and a reading comprehension test were used to gather the data. The sample was one class in the ninth grade in SMPN 1 Liriaja (IX A) that consisted of 30 students.

Table 1. The Result of the Correlation Analysis

Correlations			
		Vocabulary	Reading
Vocabulary	Pearson Correlation	1	.698**
	Sig. (2-tailed)		.000
	N	30	30
Reading	Pearson Correlation	.698**	1
	Sig. (2-tailed)	.000	
	N	30	30

It can be seen in general, that there is a positive correlation between vocabulary knowledge and reading comprehension. It can also be said this correlation is linear. As shown in Table 1, r_{xy} is 0.698 obtained from the test results using SPSS.22. Students' vocabulary knowledge and reading comprehension correlate 0.698, and from the scatterplot graph R^2 (Coefficient Determinant) is 0.486 which means that the value or ability of students' reading comprehension is 49% a function of vocabulary knowledge.

A probability of 0.000 is required to demonstrate this, which is less than the significance level for using the sig. (2-tailed) (0.05). According to the correlation coefficient of 0.698, students' vocabulary knowledge positively affects their ability to comprehend text.

5. Discussion

The discussion presents the interpretation of the research results. The purpose of this research is to find out the correlation between ninth-grade students' vocabulary knowledge and their reading comprehension abilities at SMPN 1 Liliraja. The following is a representation of the research findings based on the data analyzed.

Because the correlation coefficient is 0.698, it could be considered a strong correlation (Arikunto, 2003). The strategy and background knowledge of the text help students understand the text in addition to their ability to know the vocabulary. To improve their reading comprehension, teachers should have their students learnt vocabulary. Vocabulary has a direct correlation to comprehension. Those

statements are related to Bangun (2018) research about the characteristics of students with high self-efficacy.

The correlation coefficient (r_{xy}) is 0.698, and the relationship for both vocabulary knowledge and reading comprehension among ninth-grade students in SMPN 1 Liliraja was found to be strong, with a correlation coefficient of 0.61 to 0.80, so it can be said that there was a strong relationship between two variables. To improve reading comprehension, learners need to learn more vocabulary, which correlates significantly with the capacity to comprehend written material.

To learn more about how vocabulary affects comprehension, Zhang and Annual (2008) researched this topic. Vocabulary learning to reading comprehension and overall competency evaluations was assessed using the VLT approach, which the researchers used. According to the researchers, differing task formats may have altered reading comprehension.

The students can understand the text more easily when they have a large vocabulary. Although students' reading strategies and experience assist them in comprehending a text, vocabulary knowledge is more important in assisting students in comprehending the text. This is following the opinion of (Willingham, 2017), who claims that we have a low tolerance for unfamiliar words in the texts we read. To find meaning, we need to know approximately 98 percent or more of the words. A student's reading comprehension will increase overall if their vocabulary is expanded and developed (Trisha, 2004).

6. Conclusions

Based on the finding and discussion related to the research question, the focus of this research is the relationship between students' reading comprehension and vocabulary knowledge. This study also wants to find out how well the students can read and use words. There was also a lot of evidence from the tests on vocabulary knowledge and reading comprehension that both tests had a strong/significant correlation. The coefficient correlation between the vocabulary test and the reading comprehension test is 0.698.

According to the findings and discussions presented in the previous chapter, there is a strong relationship between students' vocabulary knowledge and their ability to read and understand the text. Therefore, they are not the same. Students with high vocabulary scores also have high reading scores, which means that they can read well.

As a result, students' vocabulary knowledge and reading comprehension scores tend to be low but besides a correlation. Therefore, students' vocabulary knowledge still has to be improved to have a high reading score.

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