VOCABULARY MASTERY AND READING COMPREHENSION OF IT EDUCATION DEPARTMENT STUDENTS

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Abstract

This study is aimed at investigating the vocabulary mastery and the comprehension of passage of IT Education Department students. Vocabulary mastery is one of language component that is essential to be learned. Without any mastery on vocabulary, it will be very difficult to learn foreign language. Further, vocabulary is also important to comprehend a reading text or reading passage. The data in this research collected using two tests, vocabulary test and reading comprehension test. The result of vocabulary showed that the mean score of the class was 64.76 which was in the intermediate level. Further, the result of reading comprehension test showed that the mean score of the class was 74.28. The hypothesis testing was analyzed using Spearman correlational analysis. It showed that the significant value (0.299) was higher than the level of significance 0.05. Meanwhile, the coefficient of the correlation was 0.133. Thus, it can be concluded that there is no significant correlation between vocabulary mastery and the comprehension on reading passage of IT Education Department students. In the other words, vocabulary mastery does not contribute to IT Education Departments' reading comprehension.

Keywords: vocabulary mastery; reading comprehension; correlation

Abstrak

Penelitian ini bertujuan untuk mengetahui hubungan antara penguasaan kosakata dan kemampuan memahami bacaan dari mahasiswa di Prodi Pendidikan Teknologi Informasi. Penguasaan kosakata merupakan komponen Bahasa yang penting untuk dipelajari. Tanpa penguasaan kosakata, akan sangat sulit untuk mempelajari Bahasa asing. Selain itu, kosakata juga sangat penting dikuasai untuk memahami bacaan. Data dari penelitian ini dikumpulkan menggunakan dua tes, tes kosakata dan tes pemahaman bacaan. Hasil dari tes kosakata menunjukkan bahwa nilai rata-rata kelasnya 64.76 yang artinya berada pada tingkat menengah. Selanjutnya, tes memahami bacaan menunjukkan bahwa rata-rata kelasnya adalah 74.28. Lalu, uji hipotesis dilakukan dengan Spearman analisis korelasi. Hasil uji hipotesis menunjukkan bahwa nilai signifikansinya adalah 0.299 yang jelas lebih kecil dari tingkat signifikan 0.05. Sedangkan koefisien korelasinya menunjukkan angka 0.133. Oleh karena itu, dapat disimpulkan bahwa tidak ada korelasi yang signifikan antara penguasaan kosakata dan kemampuan memahami bacaan dari mahasiswa Prodi Pendidikan Teknologi Informasi. Dengan kata lain, penguasaan kosakata tidak berkontribusi pada kemampuan mahasiswa Prodi Pendidikan Teknologi Informasi dalam memahamai bacaan.

Kata Kunci: penguasaan kosakata; pemahaman bacaan; korelasi

INTRODUCTION

Learning English is not just the duty of a disciple to improve the achievement standard subjects, but learning English is a need. It is to know skills for facing the high competition in the global era. According to (Harmer, 2007), many people learn English because they think it will be useful in international communication. Students of general English often do not have a particular reason for going to English classes, but simply wish to learn to write the language effectively for wherever this might be useful for them. The students learning will have an effect on what it is they want and need to learn and as a result will influence what they are taught.

To learn English, the learners have to master four skills, reading, listening, writing and speaking. However, some language should also be learned to support the development of the language skills (Harmer, 2007). The language components are vocabulary, grammar, pronunciation.

According to (Nunan, 1991), vocabulary is the collection of words that an individual knows. Vocabulary is needed to obtain better understanding in all of four skill. To learn a foreign language, students should start learning vocabulary because without mastering vocabulary they will find some problems in listening, speaking, reading, and writing. Further, according to (Vungthong et al., 2017), mastering vocabulary becomes the ticket to be a successful language learning.

Especially for reading, vocabulary is necessary to be mastered since it will enhance comprehension in reading. Reading cannot be separated among of language skills. By it, enlarging knowledge and obtaining many kinds of information could be gotten. To support it, the reader should also pay attention on mastering vocabulary. The students learn how to comprehend reading material and by comprehending it, they can improve their vocabulary.

Reading as one of skills is a complex conscious and unconscious mental process in which the reader uses a variety of strategies to reconstruct the meaning that the author is assumed to have intended, based on data from the text and from the reader's prior knowledge. From this statement, it can be said that reading from the text made our knowledge improved. Further, it is not only the students of English Departments who should learn the reading skill but also non English Department students. Reading comprehension is essential in reading skills in modern society, especially at the level of education. In education, we shall find a problem and we require different ways to evaluate students who generally have low reading comprehension to respond to the text which they analyze. For students of IT Education Department, reading skill can help them to understand the operation of computer and other technology which mostly have English as the command. Further, they can also learn better essential references in English so that it can support their learning.

However, vocabulary mastery is very important to support reading comprehension. Students cannot understand what they are reading without knowing what most of the word mean. Clearly, it is known that vocabulary mastery is one to acquire the language well (Sudirman, 2020). Considering the importance of vocabulary mastery in reading comprehension, the writer wants to conduct an investigation on the correlation between student's mastery on the vocabulary and reading comprehension.

Review of Related Literature

(Goldman et al., 2010) defined vocabulary as the knowledge of words and their meanings. Further, vocabulary mastery refers to words that the students must know to reach certain comprehension in reading text. According to Fardhani (2005, p.3), vocabulary is one component of language plays a key role in all language skills: listening, speaking, reading and writing. One component is very supportive language vocabulary skills is writing. Writing not only think about an idea or someone's imagination but the students must master the vocabulary to support the achievement of their writing, because without understanding the vocabulary students cannot write well. Therefore, it is very important to learn vocabulary by all students and writing can be easy if we understand Vocabulary has a crucial role in academic development.

Further, Kameenui (1995, p.35) says that vocabulary acquisition is crucial to academic development. Not only do the students need a rich body of word knowledge to succeed in basic skill areas, they also need specialized vocabulary to learn context area material. Writing requires a lot of knowledge about vocabulary, because vocabulary is very crucial to study component in the English language in writing. A student must have a strategy to understanding the language skills, especially writing. Therefore, successful learning on vocabulary mastery can develop knowledge and improve academic achievement.

David Wilkins on (Thornbury, 2002) stated that 'Without grammar very little can be conveyed, without vocabulary nothing can be conveyed.' From the statement it is very clear that vocabulary mastery is very importance. It is not only for the students of English Education Department but also other departments. For Information and Technology Education Department, English vocabulary mastery is also very important. It is clearly known that many manual books in technology and computer usually use English. Thus, it is very important for them to have enough vocabulary mastery. Further, (Thornbury, 2002) stated that students need to know the words not only by their meanings but also the other words associate with them.

Vocabulary test is conducted to measure the students' mastery of the vocabulary. Test is very important to students. According to (Thornbury, 2002),without test vocabulary there is no reliable means of knowing how effective a teaching sequence has been. Testing motivates learners to review vocabulary in preparation for a test and more seriously to study vocab into writing.

Further, (Schmitt, 2002) stated that vocabulary test is actually to investigate the size of test takers' vocabulary mastery. However, vocabulary test usually include a wide range of words of all. In this case, the vocabulary test is used to test the level of vocabulary mastery of the students of IT Education Department students.

Since the goal of vocabulary test is to investigate the size of test takers' vocabulary mastery, it is important to define the level of vocabulary mastery of the students. According to https://www.oxfordonlineenglish.com/, the level of vocabulary mastery of the students range from elementary which is symbolized as A1 to advanced which is symbolized as C1. There are 40 questions to be done to define the level of vocabulary mastery.

Moreover, the size of vocabulary mastery can be also defined as how many words students acknowledge starting from 1000, 2000, 3000, 4000 and 5000 word levels. It might be the most widely used measured (Webb et al., 2017). However, in this research, the vocabulary test to define the level of vocabulary will refer to the test of vocabulary by https://www.oxfordonlineenglish.com/.

Reading is a useful skill to be developed (Harmer, 2007). Some people may find that learning the reading skill is easy. However, some people say that they need to struggle to understand complex text (Willis, 2008). Reading is not naturally acquired like speaking, especially for the foreign language learners. Yet, it is very important to acquire the reading skill.

Reading comprehension is defined as the level of understanding of a text / a message. Reading cannot take place without comprehension. In order to know the author's idea, reader must understand the content of the reading passage. (Mikulecky & Jeffries, 2007) stated that comprehending in reading is not only about reading the text and understanding the words but also connecting the idea of the text. Thus, reading comprehension is thinking process while reading.

A good research should have novelty on it. In this study, the researcher would like to conduct a mix method research on the correlation between vocabulary mastery and students' comprehension on reading passage of IT Education Department students. Different from research conducted by (Furqon, 2013a) who investigate only the correlation between vocabulary master and reading comprehension, this study is conducted to define the vocabulary mastery and the comprehension of the IT Education

students. Here, non-English department students are taken as the sample. Further, the correlation of the vocabulary mastery and the comprehension on reading passage is investigated.

RESEARCH METHOD

According to Ary et.al. (2010: 16) , scientific research is the application of the scientific approach to studying a problem. It is a way to acquire dependable and useful information. Its purpose is to discover answer to meaningful questions by applying scientific procedures. Although it may take place in different setting and may use different methods, scientific research is universally a systematic and objective research for reliable knowledge. Ary et.al. (2002: 22) also defined the educational research is divided into two categories, the first category is quantitative research. It is uses objective measurement and statistical analysis of numeric data to understand and explain phenomena. And the second category is. in contrast, focuses on understanding social phenomena from the perspective of the human participant in this study. From the definition above, the type of this research is quantitative research and the design of this research is correlation study. This research is arranged to take valid conclusion of significant correlation between vocabulary and reading recount text of the subject. In this study, the vocabulary mastery and reading recount text are variable to be implemented in a correlational research to explore data and to be analysis by using the formulation of Spearman correlation.

In this research, the researcher takes IT Education Department students as the population. The sample of this research consists of 63 students of the IT Education Departments. Here, the researcher used purposive sampling. According to (Sugiyono, 2015), purposive sampling means taking the samples using some consideration. Here, the considerations taken by the researchers were that the two classes were the classes taught by the researcher. It means that the researcher can be the complete researcher who are taught and give tests as the instruments to take data.

In one study, step or research technique is determining the success or failure of a study. The data was collected using two kinds of test. There are two kinds of test, namely test of vocabulary mastery and test of reading comprehension.

a. Vocabulary test

   The test of vocabulary mastery is intended to collect data about students' vocabulary mastery. The test in the form of matching type, consist of 20 items. The students are required to find the correct answer by choosing the correct word that would have similar meaning with the definition given.

b. Reading comprehension test

Test of reading is intended to collect data about students' reading comprehension. There are 20 questions to be answered by the students which showed their reading comprehension level from literal, interpretative, critical and creative level.

Table 1. Level of Reading Comprehension

Object of Test	Objectives of Test	Indicators
Language Skill: Reading	Students are able to answer the reading comprehension test based on the text they have read to see their level of comprehension.	Students can answer the reading comprehension on the literal level by reproducing the fact as they related by the writer.
		Students can answer the reading comprehension on the interpretive level including the significance of the data, to note various relationship such as cause effect and relation of the part to the whole, make comparison, to draw conclusion and interference, and to make generalization.
		Students can answer the reading comprehension on the critical level by evaluating and judging the information from the text, noting the evidence from the writer's point of view.
		Students can answer the reading comprehension question on creative level by involving the students' own ideas and thinking.

After taking the data using the two test, the result of the test are scored and then analyzed quantitatively. The data then are statistically analyzed to see the correlation between vocabulary mastery and reading comprehension. The data from vocabulary test and reading comprehension were analyzed using descriptive statistics to show the mean, minimum score and maximum score of the two tests. Further, if the data were analyzed using Spearman rank correlational analysis using iBM SPSS 26.0.

RESULT AND DISCUSSIONS

The first data source were taken by administering a vocabulary test. Here, the students should answer twenty questions of vocabulary test which is related to the vocabulary used in information and

technology section. There were 63 students who joined the test. Further, table 2 shows the summary of the vocabulary test.

Table 2. The Summary of the Vocabulary Test

Descriptive Statistics

	N	Minimum	Maximum	Mean
vocabulary	63	25	90	64.76
Valid N (listwise)	63			

From table 2, it can be seen that from 63 student who were joined the test, the minimum score was 25 while the maximum score was 90. Further, the mean score of the vocabulary test was 64.76 which is in the medium level.

Besides vocabulary test, the students of IT Education Department Universitas Bhinneka PGRI also did reading comprehension test. The test consisted of 20 comprehension questions based on the passage read. The questions, further, showed the students' level of comprehension from literal, interpretative, critical to creative. Table 3 shows the summary of students' reading comprehension test.

Table 3. Reading Comprehension Test

Descriptive Statistics

	N	Minimum	Maximum	Mean
Reading	63	40.00	100.00	74.2857
Valid N (listwise)	63			

From table 3 above, it can be seen that the minimum score obtained by the students on reading comprehension test was 40 and the maximum score was 100. Further, from 63 students who joined the test, the mean score of the reading comprehension test was 74.3.

After the two tests have been administered, the data obtained data was analyzed using the normality test to decide the statistical analysis used to test the hypothesis. Here, the researcher used Shapiro Wilk and Kolmogorov-Smirnov normality test. The result can be seen in table 4.

Table 4. The Result of Normality Test

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Reading	.167	63	.000	.931	63	.002
vocab	.142	63	.003	.950	63	.012

a. Lilliefors Significance Correction

From the table 4 above, it can be seen that all of the significant value obtained from the normality test were below the level of significance 0.05. Thus, it can be concluded that the data was not normally distributed. It means that the hypothesis testing should use the non-parametric correlation. Here, the researcher decided to use Spearman correlational analysis. Spearman correlational analysis usually uses to determine the correlation between two variables with non-parametric procedure (Cronk, 2008). Yet, it can be used in more situations.

Correlational analysis was used to the hypothesis of this research which was formulated as follow:

Ha: There is significant correlation between vocabulary mastery and comprehension on the reading passage of IT Education Department students.

H0: There is no significant correlation between vocabulary mastery and comprehension on the reading passage of IT Education Department students.

Further, the Spearman correlational analysis was conducted using IbM SPSS 26.0. The result can be seen in Table 5.

Table 5. Spearman Correlational Analysis

Correlations

			vocab	Reading
Spearman's rho	Vocab	Correlation Coefficient	1.000	.133
		Sig. (2-tailed)	.	.299
		N	63	63
	Reading	Correlation Coefficient	.133	1.000
		Sig. (2-tailed)	.299	.
		N	63	63

Table 5 showed that the correlation coefficient was 0.133. It showed a positive weak correlation. Further, the significant value was 0.299 which was higher than the level of significant 0.05 (0.299>0.05). It means that the null hypothesis was accepted. Thus, it can be concluded that there is no significant correlation between vocabulary mastery and comprehension of the reading passage of IT Education Department students. In the other words, vocabulary mastery does not have the relationship on the students' reading comprehension.

Discussion

This research was aimed to investigate the correlation between vocabulary mastery and the comprehension on the reading passage of the students of IT Education Department. The result of the vocabulary test showed that although they were IT Education Department students, they were in the

intermediate level of vocabulary mastery. It was proved by the result of the test which mean score was 64.76. Further, the reading comprehension test showed that the students mostly can answer the comprehension questions. The reading test's mean score was 74.28. It means that the students can answer the questions well and they are in the critical reading level. In critical reading level, the students can answer the comprehension questions using their own ideas and their critical thinking.

Finally, the result of correlational analysis showed that there is no significant correlation between vocabulary mastery and the comprehension on the reading passage. It means there is no relationship between vocabulary mastery and the reading comprehension. It does not show the concept of the higher vocabulary mastery the students have, the higher comprehension on reading passage. This result was actually against some studies that shows that vocabulary mastery helps on students' reading comprehension such as (Bahri, 2019; Furqon, 2013b; Hayati, 2016; Rizola et al., 2019). However, the result supported research conducted by (Sudirman, 2020). (Sudirman, 2020) also found that there is no significant correlation between vocabulary mastery and reading comprehension.

The result of this research was different from previous research on the same variables because the fourprevious research was conducted in the context of English Department students. Meanwhile, this research was conducted in the context of IT Education Department students. Usually, the students of IT Education Department have already been familiar with many vocabulary on IT world. That's why, they are already in the intermediate level of vocabulary mastery. Further, reading comprehension is something apart from their everyday activities. Thus, it will be not influenced by the vocabulary mastery they have.

Moreover, the factors that may affect the result that shows that there is no significant correlation between vocabulary mastery and reading comprehension can be two things (Sudirman, 2020). The first factor is that vocabulary building of the students and the second factor is the ability of the teacher to teach the students both vocabulary and reading. The teacher should enrich the students' vocabulary mastery and find a better way to teach reading skill.

CONCLUSION

This study was aimed at investigating the correlation between vocabulary mastery and comprehension of reading passage of IT Education Department students. The result of the correlational statistical analysis using Spearman correlational analysis showed that the significant value found was .299 which was higher than the level of significance .05 (.299 > .05). It means that the H0 is accepted. Thus, there is no significant correlation between vocabulary mastery and comprehension on reading

passage. Further, the correlation coefficient of vocabulary mastery and reading comprehension was .133 that is in low positive correlation. Since the correlation was weak, it can be concluded that vocabulary mastery of the students does not influence their reading comprehension.

Some suggestions are offered based on the result of this study. Since the result of this study found that there is no correlation between vocabulary mastery and reading comprehension, future researcher can try to conduct a research on the same field. Further, the instruments used can be taken from standardized test so that it can really show the reality of the vocabulary mastery as well as the reading comprehension level.

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