CORRELATION BETWEEN VOCABULARY MASTERY, READING COMPREHENSION AND STUDENTS’ ENGLISH ACHIEVEMENT

Heru Purwantoro*, Muhammad Asrori, Dewi Sri Wahyuni
English Education Department
Teacher Training and Education Faculty
Sebelas Maret University
Email: Herupurwantoro16@gmail.com

The objectives of this research are to find out the correlation between (1) the students’ vocabulary mastery and students’ English achievement; (2) the students’ reading comprehension and students’ English achievement; and (3) the students’ vocabulary mastery and reading comprehension toward students’ English achievement. The study is conducted in October to November 2015 at SMP Negeri 5 Sragen. The population is all of its eight grade students, while the sample group is 32 students of VIII C which is taken by cluster random sampling technique. The researcher uses descriptive research method, with category of correlational study. The instruments in collecting the data are test and document from the English teacher. The techniques which are used to analyze the data are Simple Correlation and Multiple Regression Correlation. The result of the data analysis shows that in the level of significance $\alpha = 0.05$ (1) there is a positive correlation between the students’ vocabulary mastery and students’ English achievement ($r_{x1y} = 0.373$ and $t_0 = 2.13 > t_t = 1.7$), and it is about 13.92%; (2) there is a positive correlation between the students’ reading comprehension and students’ English achievement ($r_{x2y} = 0.465$ and $t_0 = 2.78 > t_t = 1.7$, and it is about 44.51%; and there is a positive correlation between the students’ vocabulary mastery and reading comprehension toward students’ English achievement ($R_{y12} = 0.4683$ dan $F_0 = 3.80 > F_t = 3.35$), and it is about 21.93%.

Key words: Vocabulary Mastery, Reading Comprehension, and Students’ English Achievement

Tujuan dari penelitian ini adalah untuk mengetahui korelasi atau hubungan antara (1) penguasaan kosakata dengan prestasi bahasa inggris siswa; (2) kemampuan membaca dengan prestasi bahasa inggris siswa; dan (3) penguasaan kosakata dan kemampuan membaca dengan prestasi bahasa inggris siswa. Penelitian ini diadakan sejak Oktober hingga November 2015 di SMP Negeri 5 Sragen. Populasinya adalah semua siswa kelas delapan, sedangkan sampelnya adalah 32 siswa kelas VIII C yang ditentukan dengan teknik cluster random sampling. Peneliti menggunakan metode penelitian deskriptif, dengan kategori penelitian korelasi. Instrumen yang digunakan untuk mengumpulkan data adalah tes dan dokumen guru bahasa inggris. Teknik yang digunakan untuk menganalisa data dalam...
Hasil penelitian ini menunjukkan bahwa di level signifik ɑ = 0.05 (1) terdapat hubungan positif antara penguasaan kosa kata dan prestasi bahasa inggris siswa \( r_{x1y} = 0.373 \) dan \( t_o = 2.13 \Rightarrow t = 1.7 \) sebesar 13.92%; (2) terdapat hubungan positif antara kemampuan membaca siswa dengan prestasi bahasa inggris siswa \( r_{x2y} = 0.465 \) dan \( t_o = 2.78 \Rightarrow t = 1.7 \) sebesar 46.51%; dan (3) terdapat hubungan positif antara penguasaan kosa kata dan kemampuan membaca terhadap prestasi bahasa inggris siswa \( R_{y12} = 0.4683 \) dan \( F_o = 3.80 \Rightarrow F = 3.35 \) sebesar 21.93%. Hal ini juga berarti bahwa meningkatnya penguasaan kosa kata dan siswa, baik secara terpisah ataupun bersama-sama, akan diikuti dengan meningkatnya prestasi bahasa inggris siswa.

Kata kunci: Penguasaan kosakata, Kemampuan Membaca, dan Prestasi Bahasa Inggris Siswa

Most people around the world use English as a means of communication. English is known as the international language. So, if someone wants to communicate with people from other countries, he or she has to know English well as a means of communication. In this globalization era, English is very important to learn because there are so many aspects using English as the language. Almost all the level of education group learns this subject.

In learning English, students are required to master four basic skills of English, namely: writing, reading, speaking, and listening. In fact, it would not easy to cover or to master all the basic skills, one of the reason because English is not their native.

One of aspects in learning English that influences the language learning achievement is vocabulary mastery. Jack Richard (2001: 4), states that vocabulary is one of the most obvious components of language and one of the first things applied linguist turned their attention to. Vocabulary is the key aspect of language learning which consists of a list or set of words that individual speakers of language might use for speaking, listening, reading, and writing. Mastering vocabulary will obstruct the student’s chances to speak, listen, read, and write. Without an extensive vocabulary, students will be unable to use the structure and functions they have learned for communication. The communication will be successful if the communicators master
adequate vocabulary well. Nunan (1991: 118), says that these days, then, the consensus of opinion seems to be that development of rich vocabulary is an important element in acquisition of a second language. It is clear that vocabulary is important for communication and also needed in the acquisition of a second language. To get high English achievement, especially in reading, students are demanded to have good vocabulary because reading activity need their ability to interpret the meaning or information of the text and we know that text consists of words.

English language sometimes becomes the most dreadful subject because students find some difficulties in English. One of English subject is reading. The basic reason is English is not their native. They have to increase their vocabulary to help them learn reading. So in comprehending the words, sentences, and texts, they have to learn reading well in order to get all detail information or the meaning of written text completely because some aspects in reading will affect to students English achievement.

Reading becomes an important way to learn English. In learning reading, we also learn how to speak each word in written text, to master vocabulary, and also try to know what we are reading. Reading is learned as the way to teach people or students to find out any information from the texts, such as when we read magazines, letters, brochures, advertisements, and newspapers. Bond (1979:21) says, “Reading is the ability to draw meaning from the printed page and interpret this information appropriately”. In teaching reading, the teacher has to know the goal to process the reading activities in order to teach the students how to read and find any information well in the text scientifically and what the students read relevant to their need, interest, and able to read it.

English achievement of students is an indicator of English learning success which is done by teacher and students. It can be said that English achievement is the reflection of English ability which is achieved by a student. There are some factors that influence English achievement; they are internal factors and external factors. The internal factors are the factors come from the student self, for examples are...
motivation, interest, intelligence, mastery (grammar, vocabulary), etc. While the external factors are factors which come from the outside, for examples are facilities of learning, situation of school, parents, etc. Suryabrata (Endang Sri Markamah, 2002: 4) states that learning achievement is influenced by some factors; they are social factors (human), non-social (facilities), psychological (creativity, interest, progress), physiology (physical). Although there are many factors that can influence process and achievement of student, but most of them that can influence the achievement are from student self, such as intelligence, motivate, and interest.

Based on the background study, the objectives of the study are to find out the correlation between: (1) the students’ vocabulary mastery and students’ English achievement of the eighth grade students of SMP Negeri 5 Sragen in the academic year of 2015/2016; (2) reading comprehension and students’ English achievement of the eighth grade students of SMP Negeri 5 Sragen in the academic year of 2015/2016; and (3) the students’ vocabulary mastery and reading comprehension toward students’ English achievement of the eighth grade students of SMP Negeri 5 Sragen in the academic year of 2015/2016.

Knowing a large number of words and the meaning of each word in their own language is very important for people. Some experts have given the definition of vocabulary. Hatch and Brown (1995: 1) state that the term vocabulary refers to a list or set of words for a particular language or a list or a set of words that individual speakers of language might use. Furthermore, Linse (2005:121) says that vocabulary is the collection of words that everyone knows. Vocabulary consists of noun, verbs, adjective, adverbs, preposition, articles, etc.

Another statement is delivered by Schmitt (2000: 158) who says “Vocabulary teaching means more than just introducing new words; it also includes nurturing partially known vocabulary along to the point where learners can use it at will.” While, Richards (2001: 4) says that vocabulary is one of most obvious component of language and one of the first things applied linguist turned their attention to. Another statement is delivered by Palmer (in Thornbury, scoot, 2002: 30) says that vocabulary
is one of the most important aspect of foreign language learning and be the essential component of reading proficiency. It also be the essential component in other language skill. In other words, mastering vocabulary can be a key of success in language learning. Vocabulary is words that the students can understand, pronounce correctly and use constructively in speaking and writing. Meanwhile, passive vocabulary is words that the students recognize and understand when they occur in context, but which learners cannot produce correctly by themselves.

In learning English language as a foreign language, learners or students should be competent in four language skills, they are; listening, speaking, reading, and writing. Before they master in four languages skill, they have to master the words in order they can comprehend when they are reading a text, listening someone’s speaks or any information, writing something, and when they are speaking. It shows that vocabulary has an important place in language elements that should be learnt.

From the definition above we can conclude that vocabulary mastery is knowledge of words with their meaning and the way to use it as the important and essential component in language learning.

Reading is important skill in second language learning. Reading is more than merely referring to the activity of following each line of written page. It involves various and mixed activities. Reading for information in English is one of the most important purposes that the learner may have in learning English and it is therefore essential to give the students practice in this.

Reading is an activity that has a goal. A person may read in order to look for any information, analyze something such as critique a writer’s ideas or style of writing, and may also read just for enjoyment. The purpose for reading guides the reader’s selection of the texts.

Grellet (1998:182) states that reading comprehension means understanding a written text to extract the required information from it as efficiently as possible. Grellet emphasizes the importance of obtaining the required information in reading.
In line with Grellet Murcia (2001:187) says reading comprehension is reading which the goal is to understand main ideas and relevant supporting information. Therefore reading comprehension means understanding what has been read. It is an active process that depends not only on comprehension skill, but also on the reader’s experiences.

According to Howell, et al.(1993:182), reading comprehension is the act of combining of information in passage with prior knowledge in order to construct meaning. So, there is interaction between the reader and the writer. Adam (in Howell, Fox, Morehead, 1993:182) states that reading comprehension is an active process through which the reader uses code, context analysis, prior knowledge, vocabulary, and language, along with executive-control strategies, to understand the text. While Rand Reading Study Group (in Torgesen, 2006: 3) defines reading comprehension as “the process simultaneously extracting and constructing meaning through interaction and involvement with written language”. They add that comprehension involves three important elements: (1) the reader who is doing the comprehending, (2) the text that is to be comprehended, (3) the activity in which comprehension is a part.

From the theories above, it can be concluded that reading is activity to get information and meaning from a written text and interpret it with the reader’s needs and goal.

It is important to know students ability after teaching and learning process. Test and evaluation are needed to measure how far the students know the material that given by the teacher. In general, students will try hard to get good score in teaching learning process.

According to Skinner (1958: 206) says that what is meant by learning achievement is the outcomes of learning. Furthermore, Cruickshank (1999: 459) states that an achievement test is a test that measures what a student knows in a subject are (for example: mathematics, English). While Brown (2004: 47) says that achievement test is related directly to classroom lessons, units, or even a total curriculum. Another expert says that an achievement test is examinations of the
knowledge and skills acquired, usually as a result of specific instruction (Sadker, 1997: 612). Winkel (2005: 532) says achievement is a result that is achieved by students who have learning process in school and effort which can make changes of knowledge, attitude, and behavior. Result of the changes is shown in score.

From the definitions above, the writer concludes that achievement is a result of learning and test or examination and it can be gotten by learning process and efforts.

Research methods

This research is conducted in SMP Negeri 5 Sragen that is located in Jl. Mawar No. 4, Tegalsari, Sragen Kulon, Sragen. The population is the eighth grade students in the academic year of 2015/2016 which consists of eight classes, while the sample is 32 students of class VIII C. The sampling technique is cluster random sampling. The research is started from October 2015.

The research method uses in this research is descriptive research method. In this descriptive research, the writer conducted a correlational study. According to Fraenkel and Wallen (2008: 327) correlation is a study which investigates the possibility of relationship between two or more variables. In other words, correlation research is a research to investigate and describe the relationship between the variables. Other experts, Johnson and Christensen (2000: 27) state that there are three possible results of correlation study, namely: a positive correlation, a negative correlation and no correlation.

In this correlational study, there are three variables: two independent variables and one dependent variable. The independent variables are vocabulary mastery and reading comprehension, while the dependent variable is students’ English achievement.

In this research, the writer uses test and data to collect the data. According to Brown (2004: 3) a test is a method of measuring a person’s ability, knowledge, or performance in a given area (domain). A test is also give benefits to the teacher to
help them to measure the students’ achievement, to know the students’ progress, to motivate and direct student learning and also to evaluate the teaching learning activities, whether it is good or not. In this study, the test is used to obtain the data of vocabulary mastery and reading comprehension. Vocabulary test is used by the writer is a test to measure the students’ ability in identifying words. It is limited on the word recognition (spelling, affixation, and compounding), word meaning (translation, synonym, antonym, and hyponym), and word use (using irregular forms, collocation words, and using words in the context).

The students’ reading comprehension is also assessed by test. This test assess the students’ ability in understanding the text, which is limited on understanding vocabulary (recalling word meanings and drawing inferences from context about the meaning of a word), finding explicit detailed information, finding the main ideas of the text, and finding implicit detailed information.

Besides test, another techniques used to collect the data is the English document score of students by the English teacher. In this research, document is used to get the data of the students’ English score.

**The Hypothesis Testing**

The examination of the data is needed before analyzing it. The examination covers normality, linearity, and significance of regression. The normality testing result shows that the sample comes from normally distributed population. The linearity testing result shows that all of the regressions (vocabulary mastery and students’ English achievement; reading comprehension and reading students’ English achievement; vocabulary mastery, reading comprehension and students’ English achievement) are linear. While the significance testing result shows that all of the regressions are significant.

The first hypothesis says that there is a positive correlation between vocabulary mastery ($X_1$) and students’ English achievement ($Y$). The statistical hypotheses of the first hypothesis are $H_o = r_{x2y} \leq 0$, It means that there is no
correlation between vocabulary mastery \((X_1)\) and students’ English achievement \((Y)\) and \(H_a = r_{x2y} > 0\), It means that there is a positive correlation between vocabulary mastery \((X_1)\) and students’ English achievement \((Y)\). The computation shows that the correlation coefficient \((r_{x2y})\) between vocabulary mastery \((X_1)\) and students’ English achievement \((Y)\) is 0.373 and the value of \(t_o\) \((t\text{-obtained})\) is 2.13. The value of \(t_t\) \((t\text{ table})\) at the level of significance \(\alpha = 0.05\) for \(n = 30\) is 1.70. Because \(t_o \ (2.13) > t_t \ (1.70)\), the coefficient of correlation is significant. It means that null hypothesis \((H_0)\) is rejected while the alternative hypothesis \((H_a)\) is accepted. So, there is a positive correlation between vocabulary mastery and students’ English achievement. It also shows that the coefficient determination \((r^2)\) between vocabulary mastery \((X_1)\) and students’ English achievement \((Y)\) is 0.1392. It means that 13.92% variation of students’ English achievement \((Y)\) is influenced by vocabulary mastery \((X_1)\) and 86.68% is influenced by other factors.

The second hypothesis says that there is a positive correlation between reading comprehension \((X_2)\) and students’ English achievement \((Y)\). The statistical hypotheses of the second hypothesis are \(H_o = r_{x2y} \leq 0\), It means that there is no correlation between reading comprehension \((X_2)\) and students’ English achievement \((Y)\) and \(H_a = r_{x2y} > 0\), It means that there is a positive correlation between reading comprehension \((X_2)\) and students’ English achievement \((Y)\). The computation shows that the correlation coefficient \((r_{x2y})\) between reading comprehension \((X_2)\) and students’ English achievement \((Y)\) is 0.465 and the value of \(t_o\) \((t\text{-obtained})\) is 2.78. The value of \(t_t\) \((t\text{ table})\) at the level of significance \(\alpha = 0.05\) for \(n = 30\) is 1.70. Because \(t_o \ (2.78) > t_t \ (1.70)\), the coefficient of correlation is significant. It means that null hypothesis \((H_0)\) is rejected while the alternative hypothesis \((H_a)\) is accepted. So, there is a positive correlation between reading comprehension and students’ English achievement. It also shows that the coefficient determination \((r^2)\) between reading comprehension \((X_2)\) and students’ English achievement \((Y)\) is 0.4651. It means that 46.51% variation of students’ English achievement \((Y)\) is influenced by reading comprehension \((X_2)\) and 53.49% is influenced by other factors.
The third hypothesis says that there is a positive correlation between vocabulary mastery \((X_1)\) and reading comprehension \((X_2)\) simultaneously and students’ English achievement \((Y)\). The statistical hypotheses of the second hypothesis are \(H_0 = R_o \leq 0\), It means that there is no correlation between vocabulary mastery \((X_1)\) and reading comprehension \((X_2)\) simultaneously and students’ English achievement \((Y)\) and \(H_a = R_o > 0\), It means that there is a positive correlation between vocabulary mastery \((X_1)\) and reading comprehension \((X_2)\) simultaneously and students’ English achievement \((Y)\). The computation of multiple regression shows that the coefficient of \(a_0\) is 44.96, \(a_1\) is 0.19, and \(a_2\) is 1.06. The multiple regression equation of \(Y\) on \(X_1\) and \(X_2\) is \(\hat{Y} = 44.96 + 0.19X_1 + 1.06X_2\). The value of \(F_o\) is 3.80 and the distribution table \((F_t)\) with the degree of freedom \((df)\) 2 and 27 at the level of significance \(\alpha = 0.05\) is 3.35. It is obvious that \(F_o (3.80) > F_t (3.35)\), it means that the regression equation is significant. The computation of multiple correlation shows that the correlation coefficient \((R_o)\) between vocabulary mastery \((X_1)\) and reading comprehension \((X_2)\) simultaneously and students’ English achievement \((Y)\) is 0.4683 and the value of \(F_o\) is 3.80. Because the value of \(F_o\) (3.80) is higher than the value of \(F_t\) (3.35), the coefficient of correlation is significant. It means that null hypothesis \((H_0)\) is rejected while the alternative hypothesis \((H_a)\) is accepted. In other words, there is a positive correlation between vocabulary mastery \((X_1)\) and reading comprehension \((X_2)\) simultaneously and students’ English achievement \((Y)\).

It also shows that the coefficient determination \((R^2)\) between vocabulary mastery \((X_1)\) and reading comprehension \((X_2)\) simultaneously and students’ English achievement \((Y)\) is 0.2193. It means that 21.93% variation of reading ability \((Y)\) is influenced by vocabulary mastery \((X_1)\) and reading comprehension \((X_2)\) and 78.07 % is influenced by other factors.

Discussion

Based on the result of correlation analysis, it shows that both vocabulary mastery and reading comprehension are having important effect with students’
English achievement. Thus, it can be concluded that theoretically, vocabulary mastery and reading comprehension have positive correlation to the students’ English achievement.

**Conclusion, Implication, and Suggestion**

Based on the hypothesis testing in the previous chapter, the writer draws some conclusions that (1) There is a positive and significant correlation between vocabulary mastery and students’ English achievement of the Eighth Grade Students of SMP Negeri 5 Sragen in the Academic Year of 2015/2016. It means that vocabulary mastery significantly contributed to students’ English achievement and it can be predicted that the increase of student’s vocabulary mastery will be followed by the increase of student’s English achievement. The contribution of vocabulary mastery toward students’ English achievement is 13.92%. (2) There is a positive and significant correlation between reading comprehension and students’ English achievement of the Eighth Grade Students of SMP Negeri 5 Sragen in the Academic Year of 2015/2016. It means that reading comprehension significantly contributed to students’ English achievement and it can be assumed that the increase of reading comprehension is followed by the increase of students’ English achievement. The contribution of vocabulary mastery toward reading ability is 46.51%. (3) There is a positive and significant correlation between vocabulary mastery, reading comprehension, and students’ English achievement of the Eighth Grade Students of SMP Negeri 5 Sargen in the Academic Year of 2015/2016. It means that students’ English achievement is determined by vocabulary mastery and reading comprehension and it can be assumed that the increase of vocabulary mastery and reading comprehension will be followed by the increase of English achievement. The contribution of reading strategies and vocabulary mastery toward reading ability is 21.93%.
According to the research finding, it has been concluded that there is a positive and significant correlation between vocabulary mastery and reading comprehension simultaneously and students’ English achievement. The writer found that vocabulary mastery and reading comprehension have 21.93% contribution in students’ English achievement. It means that vocabulary mastery and reading comprehension are effective factors in the effort of improving students’ English achievement. Therefore, the two variables cannot be neglected in the effort to improve English achievement.

Reading is not only reading the symbols of words and sentences but also understanding the meaning. The meaning of words and sentences are related to vocabulary. When students enrich their vocabulary, they have the ability to understand what the writer intends in their reading text or written text. Reading is an important factor in learning. Besides, students should have good vocabulary mastery. So, when students want to get high score in English, they should improve their vocabulary mastery and reading comprehension.

Based on the conclusion and implication above, the researcher would like to give some suggestions to the teachers as follows: (1) The teacher should improve the students’ ability and be aware that there are many factors influencing the students’ ability, including vocabulary mastery and reading comprehension. (2) The teacher should help students to understand what and how strategies implemented in English class. So, they can help the students to improve their achievement. (3) The teacher should help students to enrich their vocabulary mastery and reading because they are important element in language learning.

For the students, the researcher gives some suggestions as follows: (1) The students should realize that reading vocabulary mastery and reading comprehension are important factors in improving their English achievement. (2) The students should encourage themselves to understand what strategies to improve their achievement. (3) The students should improve their vocabulary mastery and reading comprehension which is very important to achieve better achievement.
The writer realizes that the result of this research is still far from being perfect, there are still many aspects that could influence the students’ English achievement. Therefore, the researcher expects that there will be other researchers who investigate other aspects relating to students’ English achievement, and hopefully this research will be useful as a reference to their researches. Besides, it can also be used by them who carry out and develop a similar study.

BIBLIOGRAPHY


