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## THE CORRELATION BETWEEN VOCABULARY MASTERY AND TRANSLATION ABILITY TO STUDENTS OF SMA NEGRI 4 PANGKAL PINANG

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### ABSTRACT

This research focuses on the correlation between vocabulary mastery and translation ability to students of Senior High School (SMA) 4 Pangkalpinang. This study will be conducted by applying a correlational design. It will be used to measure and describe the relationship between two variables in this study namely Independent and Dependent variables. The Independent variable is students' vocabulary mastery and the dependent variable is the students' translation ability of the students of SMAN 4 Pangkalpinang. the population of this study were all of the students of grade XI of SMAN 4 Pangkalpinang in academic year 2021/2022. The finding of the research can be concluded that the vocabulary achievement is fair. It can be seen from the computation in which the mean score of the students' vocabulary achievement is 63.2 when it is consulted to the table of category level scores by John W. Best (2021:260); the score is categorized in fair. the translation ability is fair. It can be seen from the computation in which the mean score of the students' translation ability is 70.77 when it is consulted to the table of category level scores by John W. Best (2021:260); the score is categorized in fair. There is a significant positive correlation between the vocabulary mastery and translation ability. There is a significant positive correlation between the vocabulary mastery (X) and translation ability (Y).

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## 1. INTRODUCTION

Translation is considered a very important thing to connect the two different languages by contributing source language (SL) into target language. Catford (1965) defines that translation is the replacement of textual material in one language (source language) by equivalent textual material in another language (target language). It means that translation is an activity of rewriting a text from its source language into the target language without modifying or changing its meaning in order to make the information in the source language become acceptable and understandable for students. In learning English as foreign language, the students have to be able to understand words. If they do not understand and do not know the meaning of English vocabulary, they will get difficulties in learning foreign language

especially English. In this case, translation is needed to understand what people express and say in their languages, write in their letters, and communicate with their friends

Vocabulary development is an important aspect of language development. In dealing with vocabulary, one should consider three important aspects of vocabulary such as how word form, how word meaning, and also how word usage (Nation, 2001). Word formation means to know how words are spoken, written, and how they can change their form. Then, meaning encompasses the way that form and meaning work together in other words, the concept and what items it refers to, and the association that come to mind when people think about a specific word or expression. These are to realize about vocabulary items that they frequently have more than one meaning. Sometimes, word has meanings in relation to other words. Regarding the explanation, the researcher summarized that in general, vocabulary could be classified into some part covering all words in language. After knowing some points of vocabulary, it was clear that the students should have a great skill on vocabulary. Not only mastery in a rich vocabulary but also understanding the using of vocabulary adequately. In preliminary research at SMAN 4 Pangkalpinang, the researcher asked Mrs. Wahyu Fardushila, S.Pd as the English teacher about the students' capability in English, especially about their vocabulary mastery and their translation ability. She said that that most of the students got difficulty in translating English because they were lack in vocabulary. Dealing with discussion above, it was predicted that the students who were good in vocabulary would be able to translate well. This research was for the intention of exploring how significant the vocabulary mastery and translation.

There are several researches that conducted the correlation between vocabulary mastery and student's ability in translating English. Imam Subari (2013) in his journal under title *The Correlation between Students' Vocabulary mastery and Their Ability in Translating English Sentences into Bahasa Indonesia*. This research was aimed at investigating the correlation between students' vocabulary mastery and their ability in translating English sentences into Bahasa Indonesia of the third semester students of English Department of STKIP-PGRI Bandar Lampung. Widya Setyaningsih et.al. (2019) on the title *A Correlational Study between Reading Habit, Vocabulary mastery, and Translation Ability*. This study was aimed in finding out whether there was a correlation between (1) students' reading habit and translation ability; (2) students' vocabulary mastery and translation ability; and (3) students' reading habit and vocabulary mastery toward translation ability. The study was conducted from May to June 2013 at English Education Department of Teacher Training and Education Faculty of Sebelas Maret University, and the population was all of sixth semester students. The sample was 34 students taken by cluster random sampling technique. The main difference between this study and the current study was in the variable usage and the sample. They used 3 variables which were reading habit, vocabulary mastery, and translation ability. The difference in variables and research samples is an aspect of novelty in this study. Different variables and aspects are the main factors that the research results will be different.

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## 2. LITERATURE REVIEW

### Assessment of Vocabulary

According Vocabulary mastery can be measured by the requirements of generalization (being able to define words) and application (selecting an appropriate use of it). So that, it can be said as a complete skill to understand the stock of words and their meaning of a particular language. Therefore Gower, Philip, and Walters (1995) states that there are three aspects that students' need to learn new vocabulary items

#### 1) The Form

- What parts of speech is the word – noun, verb, preposition etc.?
- How is it spelled – is it regular or irregular?
- Does it belong to a “family” of words, for example: electricity, electrical, electrician?
- How is the word, or combination of words, pronounced and in words of more than one syllable, where is the stress?
- How does the word collocate with surrounding words? Is it part of a set expression?

#### 2) The Meaning

- Many words have more than one meaning. What exact meaning in which context do you want to focus on?
- What is connotation of the item?
- Could the vocabulary item have different meanings for different people?

#### 3) The Use

- How is the vocabulary item used?
- Does it have a restricted use? Does it belong to a particular style or register?

Regarding the explanation above, the researcher summarizes that in general, vocabulary can be classified into some part covering all words in language. After knowing some points of vocabulary, it is clear that the students should have a great skill on vocabulary. Not only mastery in a rich vocabulary but also understand about using of vocabulary adequately. In this research, the researcher used two of Gower's theory to assess of vocabulary mastery.

### Assessment in Translation

McLeod defines Assessment in translation therefore goes beyond the evaluation of particular translation and must take into account other instruments. According Machali (2009), assessment in translation can be done through three stages. The first stages: functional assessment, the general impression to see whether general purpose of deviant writing. Otherwise, the assessment may to the next stage. The second steps: detail assessment based on the terms and criteria in the following table:

**Table 1**  
**Aspects of Translation Assessment**

Aspects	Criteria
A. Accuracy of reproduction of meaning	True, clear, reasonable
1. Linguistics aspects	deviate? (local/total)
a. Transposition	
b. Modulation	
c. Lexicon (vocabulary)	
d. Idiom	
2. Semantic aspects	Changed? (local/total)
a. Refrensial meaning	
b. Interpersonal meaning	
1) Language style	
2) Other interpersonal aspects, for example, the denotative-connotative.	
3. Pragmatic aspects	Deviate? (local/total)
a. Matching text types(including author intent/ purpose)	coherent?(local/total)
b. The demands of meaning at the level of sentence with the level of text.	
B. Fairness of expression (in standard art)	Fair and / or literal
C. Terminology	True, default, clear
D. Correct spelling	True, default

The third stage: detailed assessment of the second phase is classified in a scale and can be converted into values. To facilitate the placement of classes or categories, detailed criteria at the second stage is manifested in the general indicator in a table which created by Rochayah Machali

### 3. METHODOLOGY

The data of this research was quantitative. Collecting data was the most important step in conducting this research. In collecting data in this research, the researcher used a test. According to Donal Ary (2006), test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. It meant that a test was a device that contains a series of the task to do or questions to be answered by someone to measure the one aspect specific behaviour. Thus, the function of the test was as a tool to measure.

Before conducting the real test, the researcher conducted a try out to get its validity and reliability of each item of the test. In this research, the researcher gave two kinds of tests namely vocabulary test and translation test to get the data or information.

**a. Vocabulary Test**

For the vocabulary test, the researcher used the multiple-choice with four options; a, b, c and d. Thornbury stated that Multiple-choice tests were the popular way of testing in that they were easy to score and they were easy to design.<sup>36</sup> The researcher provided 40 questions of vocabulary to be tested for the validity. The questions were around the research limitation. In scoring the vocabulary test, the ideal highest score was 100. The answer was score  $n$  if it was correct and score 0 if it was incorrect using the following formula:

$$S = \frac{r}{n} \times 100$$

Notes:

- S = The score of tests
- r = Total of test which is correct.
- n = The total item.

**b. Translation Test**

The translating test was gave to measure the students' translating ability. In translating, the students should translate text from Indonesian into English based on the theme given. In this case, the students translated a text recount text during 60 minutes for the time allocation. Then, in scoring the students' translation ability, the criteria of rating scale was adapted from Machali to calculate the translating test. The translation score can be seen on the table below:

**Table 6**  
**Scoring system by Rochayah Machali**

Category	Score	Indicator
The translation is almost perfect	86-90 (A)	The translation is almost equal to original text. There are no mistake in grammar, spelling and using vocabulary.
The translation is very good	76-85 (B)	There are no mistake in using vocabulary, there are any grammar and spelling mistake but not many.

The translation is good	65-75 (C)	There are grammar and idiom mistakes but not more than 15% from all texts. There are any mistakes in spelling.
The translation is enough	46-60 (D)	There are grammar and idiom mistakes but not more than 25% from all texts. There are any mistakes in uncommon vocabulary.
The translation is worse	20-45 (E)	There are grammar and idiom mistakes more than 25% from all texts.

### Validity and Reliability of the Instruments

#### a) Validity of the Vocabulary Test

Validity refers to the appropriateness, meaningfulness, and usefulness of the inferences researchers makes (Fraenkel & Wallen, 1990). Furthermore, validity of test is the extent to which it measured what it is supposed to be measured and nothing else. It measured what is taught and learned. The test must be aimed to provide a true measurement of the particular skill which is intended to measure.<sup>42</sup> In other words, a test could be valid if the instrument could measure something appropriately what it is must be measured. The researcher measured the validity of the 40 questions that were provided. The measurement was conducted at the same level of the eleventh-grade students of SMAN 4 Pangkalpinang, but the school was different. Validity of the test item in this research was counted by using Statistical Product and Service Solution version 24 (SPSS 24). By using SPSS, the researcher just had to entry the data and the program analysed the data and found the valid items. The try-out of the test was conducted to 30 of the 11th grade students of SMAN 2 Pangkalpinang. The instrument of the test contained 40 items of multiple-choice questions. The researcher took the questions from some sources, and then the validity of questions was tested using SPSS 24. To find  $r_{xy}$  (Coefficient correlation between variable X and Y), it was compared with r-table. The r-table of 30 students (for  $\alpha = 5\%$ ) was 0,361. The SPSS program showed the  $r_{xy}$  of each question. If  $r_{xy}$  was higher than r table, it was valid. If the  $r_{xy}$  was lower than r table, it was invalid. Then, we could see how many questions were valid from the 40 questions.

After the tryout of the questions, the result of the tryout was tested by SPSS program to find the valid items from the questions. After being processed in the SPSS, the researcher found that there were 25 valid from 40 items. Then, the 25 valid items were used as the instrument of the test

#### b) Reliability

Reliability is a necessary characteristic of any good test; a test must first be reliable as a measuring in decision making (Heaton, 1990). Furthermore, if a test measurement is consistent and accurate, it means the test is reliable. Then, the reliability of test was analysed using SPSS 24. The computation results of reliability test showed the Cronbach's Alpha value. It indicated that the data was reliable because the Cronbach's Alpha is higher than regulation of r-table.

## 4. RESULTS AND DISCUSSION

The research was conducted to find out whether there was a correlation between students' mastery of vocabulary and their translation ability. The researcher administered two kinds of test for measuring the second-year students of SMA Negeri 4 Pangkal pinang vocabulary mastery and translation ability and their vocabulary and translation tests.

### 4.1. Students' Mastery of Vocabulary

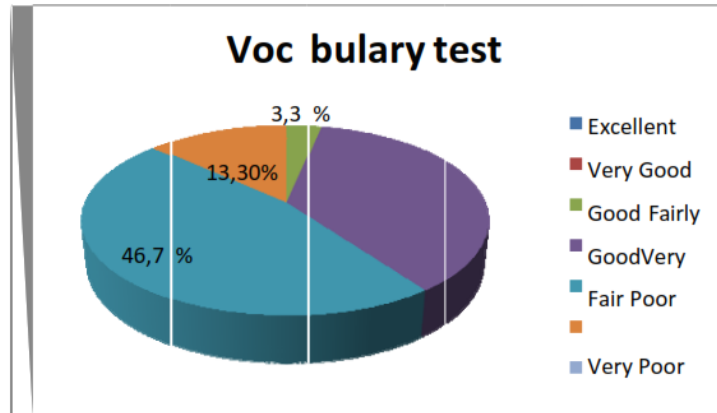
In this vocabulary test, there were 30 multiple-choice questions. Each question has five choices. The score of each item was 1. Students' marks are got by dividing the total score by 3 multiplied by 100. To facilitate the measurement of student's mastery of vocabulary, the raw scores were converted into the standard score using the percentage correction formula. To judge the 0 students' grade and the level of the vocabulary mastery, there were seven levels of the classification of the students' grade based on Depdikbud as cited by Waris (2010:11).

**Table 4.1**  
**The Table of the Grade Classification**

Score	Grade
96 to 100	excellent
86 to 95	very good
76 to 85	good
66 to 75	fairly good
56 to 65	very fair
36 to 55	poor
0 to 35	very poor

There were various scores, from high to low score. After computing the 30 Items of test, 1 student got 77, 7 students got 70, 4 students got 67, 7 students got 63, 5 students got 60, 2 students got 57, 2 students got 53, and 2 students got 50. The complete data could be seen in Appendix 7. The diagram below shows the percentage of the result of the test:

Diagram 1



**Percentage of Students' Mastery of Vocabulary**

From the diagram above, we can see that 1 student got the good grade; 11 students got the fairly good grade; 14 students got the very fair grade; 4 students got the poor grade; and no one got the excellent, very good, and very poor grade. The complete data could be seen in appendix 8. After computing the data using SPSS, we could see that the average score (mean) of students' vocabulary mastery was 63.2. It can be said that the students' vocabulary mastery of the eleventh-grade students of SMA Negeri 4 Pangkal pinang in the academic year of 2021/2022 was fair.

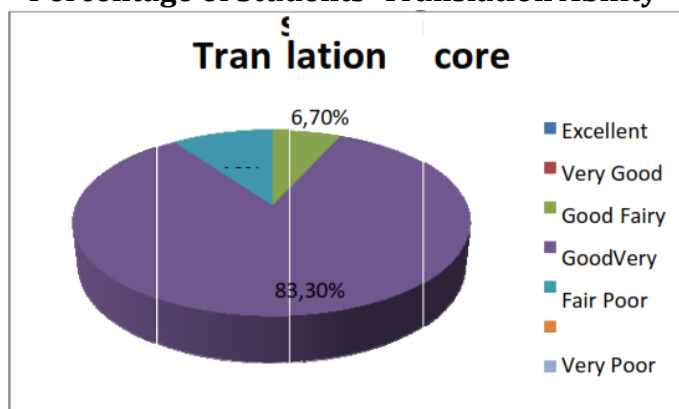
#### **4.2 Students' Translation Ability**

In this translation test, there were 3 texts, they are report, narrative, analytical exposition. The test was divided into 4 components to simplify the identification of the students' translation ability. They are fluency, structure of language, comprehension of the meaning, and choice of word. Maximum score for each component was 5. The complete detail of the translation assessment criteria could be seen in Appendix 11. The maximum score of each text was 20, so the maximum total score was 60. Students' marks are got by adding up the score of the text divided by 60 multiplied by 100. In fluency component, there were 2 students (student number 23 and 30) who got 5 points, 26 students who got 4 points, 2 students who got 3 points, and no one got 2 points. In structure of language component, there were 1 student who got 5 points, 14 students who got 4 points, 15 students who got 3 points and no



one who got 2 points. In comprehension of the meaning component, there were 8 students who got 4 points, 22 students who got 3 points and no one who got 5 and 2 points. In choice of word component, there were 10 students who got 4 points, 20 students who got 3 points and no one who get 5 and 2 points. There were various scores, from high to low score. After computing the three items of test, 1 student got 83, 1 student got 78, 1 student got 75, 5 students got 73, 8 students got 72, 4 students got 70, 4 students got 68, 3 students got 67, 2 students got 65, and 1 student got 63. The complete data could be seen in Appendix 9. The diagram below shows the percentage of the result of the test:

**Diagram 2**  
**Percentage of Students' Translation Ability**



From the diagram above, we can see that 2 students got the good grade; 25 students got the fairly good grade; 3 students got the very fair grade; and no one got the excellent, very good, poor, and very poor grade. The complete data could be seen in appendix 10. After computing the data using SPSS, we could see that the average score (mean) of students' translation score was 70.77. It can be said that the students' translation ability of the eleventh grade students of SMA Negeri 4 Pangkalpinang in the academic year of 2021/2022 was fair.

The main goal of this research was to find out what the correlation between students' mastery of vocabulary and their translation ability of the eleventh grade students of SMA Negeri 4 Pangkalpinang is. To carry out the statistical analysis, the working hypothesis was changed into the Null Hypothesis to know about the correlation between the students' mastery of vocabulary and their translation ability of the eleventh grade students of SMA Negeri 4 Pangkalpinang in the academic year of 2021/2022. After getting the scores of the students' mastery of vocabulary and their scores in translation test, the data were statistically computed to find out the correlation between the variables using SPSS, where: X = the students' mastery of vocabulary (vocabulary test) Y = the students' translation ability (translation test). In correlating those two variables, a statistical analysis that was used was Pearson's Product Moment formula. The data, then, was calculated using SPSS.

**Table 4.2**  
**Correlation Coefficient Result**

Descriptive Statistics			
	Mean	Std. Deviation	N
vocabulary	63.20	6.583	30
translation	70.77	3.980	30

Correlations			
		vocabulary	translation
vocabulary	Pearson Correlation	1	.749
	Sig. (2-tailed)		.000
	N	30	30
translation	Pearson Correlation	.749	1
	Sig. (2-tailed)	.000	
	N	30	30

The correlation coefficient of the two variables was 0.749. To know whether this correlation coefficient (0.749) was significant or not, it was necessary to find out its significance. The rejection or acceptance of the Null Hypothesis ( $H_0$ ) is based on the level of significance. In psychological or educational research, the 5 percent alpha of significance is occasionally used as standard of acceptance of the Null Hypothesis and it is also used as standard for rejection (5 percent level of significance) to judge the correlation between the two variables above. The level of significance gained in this investigation was 0.749, whereas the figure on the table of critical values of the  $r$  Product Moment with 95% confidence level and the number of subjects 30 was 0.361. It means that the correlation coefficient between the students' mastery and vocabulary and their translation ability was significant because  $r_{xy} > r_{table}$  ( $0.749 > 0.361$ ) or in the other words, the Null Hypothesis ( $H_0$ ) which explain that there was no significant correlation between students' mastery of vocabulary and their translation ability was rejected. While the alternative hypothesis or working hypothesis ( $H_1$ ) which explained that there was a significant correlation between students' mastery of vocabulary and their translation ability was accepted.

Then, in order to know the extent of the influence of students' mastery of vocabulary in their translation ability, I measured the determinant index, as follow:

$$\begin{aligned}
 \text{Determinant Index} &= (r_{xy})^2 \times 100\% \\
 &= (0.749)^2 \times 100\% \\
 &= 56.10\%
 \end{aligned}$$

The result showed that the extent of the influence of students' mastery of vocabulary in their translation ability was 56.10%. It was clear that students' mastery of vocabulary gave contribution to the students' translation ability. After conducting the research, I found that



there was a significant correlation between the two variables because the result of the data analysis showed that the correlation coefficient between the two variables was 0.749, while the critical values of the r Product Moment with 95% confidence level and the number of subject 30 is 0.361. It means that there is a positive correlation between the two variables (vocabulary mastery and translation ability). In order to know the level of relationship of the correlation coefficient, it could be determined by using the correlation coefficient interpretation by Best (1981:255) as follows:

**Table 4.3**  
**Correlation Coefficient Interpretation**

Coefficient	Relationship
.00 to .20	Negligible
.20 to .40	Low
.40 to .60	Moderate
.60 to .80	Substantial
.80 to .100	High to very high

(Best, 2021 :255)

From the table above, I could conclude that the level of relationship of the correlation between the two variables was substantial because the correlation coefficient of the two variables was 0.749 while the determined criteria showed that the correlation coefficient between 0.60 to 0.80 considered substantial. In this case, the variable Y (students' translation ability) was substantially associated with the variable X (students' mastery of vocabulary). In other words, the students' mastery of vocabulary of the eleventh years of SMA Negeri 4 Pangkal pinang correlated positively to their translation ability. From the correlation coefficient found (0.749), it means that there is a significant correlation between vocabulary mastery and translation ability because the value is not in Null Hypothesis ( $H_0$ ) area. These factors imply that the students' activity and frequency in mastering the vocabulary give a useful contribution to enlarge their translation ability. It means that if the students improve their mastery of vocabulary, their translation ability will improve as well.

Moreover, from the result obtained, we can say that the teachers have to help their students in improving their vocabulary, since vocabulary lesson is not explicitly specified in the curriculum and in the teaching and learning process, to make them master the vocabulary and also improve their translation ability. There was a significant correlation between the students' mastery of vocabulary and their translation ability. It could be interpreted that the higher students' mastery of vocabulary is, the higher their ability in translation will be. Therefore, the Null hypothesis is rejected and the hypothesis could be accepted. There is a significant positive relationship between the students' mastery of vocabulary and their translation ability of the eleventh grade students of SMA Negeri 4 Pangkal pinang in the academic year of 2021/2022



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Based on the data obtained, we can conclude that vocabulary mastery plays an important role in learning English, in order to develop our language skills (especially in translation ability). Like other languages, in learning English, someone has to be able to understand the words, not only the words from the source language but also the equivalent words in the target language. Vocabulary mastery is very useful to help the students or the learners to comprehend the content of a text/passage/book. Moreover, vocabulary mastery will help the students to have a better comprehension of an English text so that they will be able to make a good translation.

## 5. CONCLUSION

This research is proposed to answer whether or not there is a significant correlation between students' vocabulary mastery and their translation ability. In the attempt to obtain the intended data, the researcher arranged the vocabulary test to measure the students' vocabulary mastery and translation test to measure the students' translation ability.

After conducting the research, the writer comes to some conclusions. First, the vocabulary achievement of the second-year students of SMA Negeri 4 Pangkal pinang is fair. It can be seen from the computation in which the mean score of the students' vocabulary achievement is 63.2 when it is consulted to the table of category level scores by John W. Best (2021:260); the score is categorized in fair. Second, the translation ability of the second-year students of SMA Negeri 4 Pangkal pinang is fair. It can be seen from the computation in which the mean score of the students' translation ability is 70.77 when it is consulted to the table of category level scores by John W. Best (2021:260); the score is categorized in fair.

Third, there is a significant positive correlation between the vocabulary mastery and translation ability of the eleventh-grade students of SMA Negeri 4 Pangkal pinang in the academic year of 2021/2022. Recalling the  $r_{xy}$  observed value of the correlation between vocabulary mastery and translation ability applied to the sample is 0.749, and consulting to the critical values of the  $r$  Product Moment with 95% confidence level and the number of subjects 30 was 0.361. It means that the result obtained from the computation is greater than its critical value. Therefore, the writer concludes that there is a significant positive correlation between the vocabulary mastery (X) and translation ability (Y) of the second year students of SMA Negeri 4 Pangkalpinang.

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