THE CORRELATION BETWEEN STUDENTS' VOCABULARY MASTERY AND THEIR SPEAKING FLUENCY

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ABSTRACT

This research investigates the relationship between vocabulary mastery and speaking ability among students at SMKN 15 Samarinda. Vocabulary plays a crucial role in English language learning, impacting speaking fluency and communication skills. The study adopts a quantitative approach with a correlational design, using the Vocabulary Levels Test (VLT) and a Speaking Test adapted from IELTS to measure these variables. Data from 29 students were analyzed using Pearson Product-moment Correlation in IBM SPSS Statistics 27. The findings reveal a significance value of 0.511, indicating no statistically significant correlation between vocabulary mastery and speaking fluency. This challenges the assumption that a larger vocabulary directly enhances speaking skills, suggesting the presence of other influential factors. The study contributes theoretically by providing insights into language learning dynamics and practically by guiding educators on effective teaching strategies. Further research could explore additional variables impacting speaking proficiency beyond vocabulary mastery.

Keywords: *Vocabulary, Speaking, Fluency, Correlation*

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1. INTRODUCTION

1.1. Introduction

Vocabulary is one of the most important components of English, especially for students learning it as a foreign language. According to (Simaibang, 2017) learners need to employ vocabulary, grammar, pronunciation, intonation, and organization of speech contents simultaneously to enhance their speaking skills. Mastering vocabulary is essential because it significantly impacts the ability to communicate and express ideas in English. Students with limited vocabulary often struggle to respond to statements and questions, which impedes their overall speaking fluency.

Speaking fluency involves the ability to convey and receive information through oral communication. Sari D.D. (2021) emphasizes that vocabulary is as important as grammar in the context of speaking English. Many students hesitate to express their ideas in English due to a limited vocabulary. Effective vocabulary teaching, therefore, plays a crucial role in improving students' speaking abilities. McCharty (2004) states that conversations contain a substantial amount of vocabulary that serves relational and interactional functions. Milton (2001) also highlights that a learner's vocabulary volume

is closely associated with their acquisition of other language aspects and overall proficiency. A foundational vocabulary of around 2000 words is often recommended for enabling basic conversations and serving as a stepping stone for further language study.

Several studies have explored the relationship between vocabulary mastery and speaking ability. For instance, Alharthi (2020) found that participants performed better at the 2000 and 3000-word levels of the PVLT, which contributed to predicting their speaking scores. Taslim et al. (2019) demonstrated a significant positive correlation between vocabulary mastery and speaking skills among eleventh graders at SMAN 6 Sidrap. Similarly, Afna (2018) reported a positive correlation between vocabulary and speaking skills, indicating that vocabulary acquisition influences speaking fluency.

This study aims to determine whether there is a correlation between vocabulary mastery and speaking ability among students at SMKN 15 Samarinda. The objective is to identify the relationship between these two variables and understand how vocabulary mastery impacts students' speaking fluency. This research is significant for several reasons. Theoretically, it serves as a reference for educators and researchers interested in exploring the correlation between vocabulary mastery and speaking ability. Practically, it provides valuable insights for educators on how to measure and improve students' vocabulary knowledge and speaking skills. Additionally, this research can guide future studies and methodologies in this area.

The study focuses on the correlation between vocabulary mastery and speaking ability, with the subjects being students from Vocational High School 15 Samarinda. The results are expected to contribute to the existing theories on vocabulary mastery and speaking fluency and provide practical implications for improving English language teaching and learning.

1.2. Research questions

The primary research question for this study is:

a. Is there a significant correlation between vocabulary mastery and speaking ability among students at SMKN 15 Samarinda?

2. METHOD

2.1. *Research Design*

This study employs a quantitative approach with a correlational design. The primary focus is to explore between students' vocabulary mastery and their speaking fluency. Both these variables were measured and analyzed statistically to determine their relationship.

2.2. Samples/Participants

The population for this study consisted of students from SMKN 15 Samarinda, located at Ringroad Street No. 15 RW. 04 Lok Bahu, Kecamatan Sungai Kunjang, Kota Samarinda. The research was conducted on May 31, 2023, and involved students who are expected to become English teachers upon completing their studies. The total population included approximately 442 students. A sample of 29 students was selected using purposive sampling, focusing on their typical characteristics or specific qualities relevant to the study.

2.3. Instruments

Two main instruments were utilized for this study

1. **Vocabulary Levels Test (VLT)**: This test, developed by Schmitt et al. (2001), is a widely used tool for assessing vocabulary knowledge. It includes five levels, each consisting of 30 items and 60 choices. Participants were required to match the most appropriate definitions to the correct words. The VLT serves as a diagnostic tool to measure vocabulary size and helps teachers decide the vocabulary levels students need to learn.

   The Vocabulary Levels Test (VLT) by Schmitt et al. (2001) was used as the instrument to know the vocabulary mastery of students in the first section before the researcher give Conversation Task. This test has been widely used in the assessment of vocabulary knowledge (Nation, 2008) and in vocabulary research (Nirattisai & Chiramanee, 2014). This test has been widely used in research and has undergone validity and reliability checks.

   This test included five levels: 2.000-word. Each level includes 30 items and 60 choices. In every question of this test participant have six words with three

definitions and they need to match the most appropriate definition to the correct word with write the number in the box provides.

2. **Speaking Test**: Adapted from the IELTS test, this speaking test required students to describe familiar topics. The test assessed speaking fluency based on pronunciation, grammatical accuracy, vocabulary, fluency, and interactive communication. The speaking test was designed to measure the students' ability to speak English fluently and accurately.

   The speaking test utilized in this study is from ILETS Test and has been used in her previous research. Before being employed in that study, the test has been undergone validity and reliability checks, so to be used in this study, there is no need to redo the validity and reliability checks anymore because the test has been scientifically proved valid and reliable to measure students' speaking skills.

2.4. Data analysis

2.4.1 Technique of Data Analysis

The data analysis involved calculating the average scores of students' vocabulary mastery and speaking fluency. The scores from the VLT were accumulated to get total vocabulary scores, while the speaking test scores were evaluated based on pronunciation, grammatical accuracy, vocabulary, fluency, and interactive communication.

A. Measuring Vocabulary Level Test (VLT)

The researcher measured the average of students' vocabulary to know how well the students' improvement in vocabulary knowledge. The students' vocabulary mastery showed from their scores in VLT. Since the VLT measured five levels of vocabulary; 2,000 levels, the scores of each level were counted and later accumulated to get the total scores. All vocabulary levels represented 1,000 words except the academic vocabulary, consisted only 570 words. Therefore, the calculation of academic words was different from the others. The scores of 2,000 levels are count by using the following formula:

$$\text{Vocabulary scores} = \frac{Total\ correct\ items}{30} = \times 1000$$

Whereas, the scores of academic vocabulary level were conducted based on the following equation:

$$\text{Vocabulary scores} = \frac{Total\ correct\ items}{30} = \times\ 570$$

B. Speaking Fluency

The researcher assessed the students' speaking fluency based on of four aspects: grammatical accuracy, pronunciation, vocabulary and fluency. The scoring rubric of the four aspects, as attached in the appendices, is used to help researcher score the students. At the end, all aspects summed up to get the score of students' speaking skill.

2.4.2 Correlation Analysis

Scores from the Vocabulary Level Test (VLT), and speaking tests were analyzed using inferential statistics to see if there is any relationship between the two variables, namely vocabulary mastery and speaking fluency. The correlation analysis technique used was Pearson Product-moment Correlation using IBM SPSS Statistics 27.

The researcher used the categories in classified the correlation which is submitted by Sugiyono (2016). The level of correlation was measured based on the correlation coefficient interpretation table, as follows:

Table 1.1 Assessment Rubric

N o	Language components	Description
1	Pronunciation	1. Pronunciation of individual sounds and words 2. Pronunciation of sentences, the right intonation and stress
2	Grammatical Accuracy	Accurate use of structure, or how the learner gets his/her utterance correct
3	Vocabulary	The leaner's ability in choosing appropriate words and how to solve the problems when he/she cannot find suitable words by explaining around the word
4	Fluency	1. The ability to keep the conversation going 2. Read a text smoothly without hesitation, or inappropriate pause, or repeating words/lines
	Interactive Communication	The ability to get the meaning across the listener

N o	Aspect	Scal e	Indicator
1	Pronunciation	0 1 2 3 4	**Many wrong pronunciation** **Frequent incorrect** **pronunciation Occasional** **errors in pronunciation Some** **errors in pronunciation** **No errors/ minor errors**
2	Grammatical Accuracy	0 1 2 3 4	**No mastery of sentence** **construction Major problems in** **structure** **Several errors in structure** **Minor problems in structure** **Demonstrates mastery of structure (few errors)**
3	Vocabulary	0 1 2 3 4	**Little knowledge of English** **words Frequent errors of word** **choice Occasional errors in** **word choice Minor errors in** **word choice** **Effective/ appropriate word choice**
4	Fluency	0 1 2 3 4	**Dominated by** **hesitation Frequent** **hesitation Occasional** **hesitation Minor** **hesitation** **No hesitation**
5	**Interactive Communicati on**	**0** **1** **2** **3** **4**	**Message unclear** **Disconnected idea** **Ideas stand but loosely** **organized Clear and organized** **ideas** **Well organized and clear ideas**

The researcher used the categories in classifying the correlation which was submitted by Sugiyono (2016) The level of correlation strength was measured based on the correlation coefficient interpretation table, as follows:

Table 1.2 Coefficient Correlation Interpretation

Interval	Category
0.00 – 0.199	Very Low

0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.7999	Strong
0.80 – 1.000	Very Strong

3.FINDINGS AND DISCUSSION

3.1. Finding

To answer research question, the researcher measured the two variables, namely speaking fluency and vocabulary mastery. The finding of this research consists of the score of the students' in vocabulary and speaking test, the classification, and the percentage of the students' score of each test.

These findings are elaborated as follows:

1. Students' scores

The score of the students' in speaking test and grammar test were described as follows:

A. Vocabulary Level Test

After being ranked, the highest score of the students' vocabulary is 82 (subject number 28) the lowest score is 20

B. Speaking Test

After being ranked, the highest score of the students' Speaking Test is 20 (subject number 28) and the lowest score is 5 (subject number 28).

C. Scoring classification

Students' score in vocabulary and speaking test were classified some criteria. The criteria and percentage of the students are follows:

D. Vocabulary Level Test

The criteria and percentage of students score in Vocabulary Level test:

Table 2.1 The student score in Vocabulary Mastery

Subject	Vocabulary skills
x1	64
x2	68
x3	78
x4	70
x5	36
x6	67
x7	72
x8	72
x9	75
x10	60
x11	32
x12	72
x13	75
x14	71
x15	29
x16	78
x17	74
x18	78
x19	57
x20	82
x21	75
x22	41
x23	52

E. Speaking Test

Table 2.2 The student score in speaking fluency

Name	Speaking Fluency
Y1	14
Y2	11
Y3	13
Y4	16
Y5	14
Y6	5

Y7	17
Y8	10
Y9	5
Y10	8
Y11	5
Y12	14
Y13	12
Y14	7
Y15	15
Y16	7
Y17	8
Y18	5
Y19	13
Y20	13
Y21	20
Y22	6
Y23	20
Y24	20
Y25	13
Y26	19
Y27	5
Y28	11

Table 2.3 Correlation Between Vocabulary Mastery And Speaking Fluency

Correlations		Speaking	Vocabulary
Speaking	Pearson Correlation	1	.130
	Sig. (2-tailed)		.511
	N	28	28
Vocabulary	Pearson Correlation	.130	1
	Sig. (2-tailed)	.511	
	N	28	28

The result of correlation coefficient was determined by degree of Pearson-product moment and its interpretation. Table 2.3 showed the results of correlational analysis of students' vocabulary mastery and their speaking fluency by using Pearson Correlation.

The result showed that significance value is 0.511, which is higher than the alpha value (0.05) indicating that there is no correlation between students' vocabulary mastery and their speaking fluency. Therefore, the null hypothesis cannot be rejected, whereas the

alternative hypothesis must be rejected. In short, students' vocabulary mastery and speaking fluency do not correlate to each other.

3.2. Discussion

This study aimed to determined whether there is a correlation between vocabulary mastery and speaking fluency. This section presented the discussion of the finding's relation to previous studies.

From the data description, the significance value of vocabulary depth and reading comprehension is 0.511, in which the value is higher than the alpha value (0.05) indicating that there is no correlation between vocabulary mastery and speaking fluency. It means that the null hypothesis cannot be rejected. In other words, there is no significant relationship between speaking fluency and vocabulary mastery.

In addition, the results of this study were not in line with the previous studies conducted by Alharthi (2020). Alharthi's thesis, entitled *Investigating the Relationship Between Vocabulary Knowledge and FL Speaking Performance*, demonstrated that participants performed better at the 2,000 and 3,000-word levels on the PVLT (Productive Vocabulary Levels Test). His research indicated that only these specific word levels contributed significantly to predicting speaking scores. In contrast, the present study found different predictors of speaking performance, suggesting that factors other than vocabulary size might play a more critical role in influencing speaking proficiency. This discrepancy highlights the complexity of language learning and suggests that further research is needed to identify the various elements that impact foreign language speaking performance. Moreover, Alharthi's findings emphasized the importance of targeted vocabulary instruction at specific levels to enhance speaking skills, a point that the current study's results did not corroborate, thereby opening a discussion on the diverse methodologies and approaches in language acquisition research.

The results of the current study show that vocabulary mastery is not correlated with speaking fluency. This result is not in line with the theories in which vocabulary mastery is a strong predictor of speaking fluency as shown by the three previous related studies before. The sample error is one potential factor that might have an impact on this phenomenon. This study's sample size might be viewed as being too small, which could lead to sampling error. Therefore, when planning for future study, it is critical for the

future researcher to take bigger sample size. However, the findings of the present study may also accurately reflect reality, which would imply that there is no connection between students' use of complex language and their ability in speaking.

4. CONCLUSIONS

4.1. Conclusion

Based on statistical analysis, the significance value of the correlation analysis between vocabulary mastery and speaking fluency was found to be 0.511, which exceeds the predetermined alpha value of 0.05. This result suggests that there is no statistically significant correlation between vocabulary mastery and speaking fluency among the participants. In other words, the level of speaking fluency demonstrated by the participants does not appear to be influenced by their proficiency in vocabulary. Consequently, based on these findings, it is not viable to utilize vocabulary mastery as a reliable predictor of students' speaking fluency. These results challenge the commonly held assumption that a larger vocabulary directly translates into enhanced speaking skills, highlighting the nuanced and multifaceted nature of language acquisition and proficiency. Further research exploring additional factors that may contribute to speaking fluency beyond vocabulary mastery would provide a more comprehensive understanding of the dynamics involved in language learning and performance.

4.2. Suggestions

By considering the conclusions put forward above, the researcher presents some suggestions as follow:

1. The students should be accustomed to learn and understand more the use of any structure items to be practiced continuously in speaking English.

2. It is suggested that the students increase of their speaking activities either in the classroom or outside the class, as one way to increase both speaking and vocabulary mastery.

3. Since the speaking fluency positively influence the students' vocabulary mastery, the researcher suggests the lecturer to vary some techniques in teaching speaking such as pronunciation and grammar such as the structure.

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