

English vocabulary mastery of electrical engineering students at the State Polytechnic of Samarinda, Indonesia

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Abstract - This study aimed to evaluate the English vocabulary mastery of Electrical Engineering students at the State Polytechnic of Samarinda. A descriptive research method was employed, focusing on assessing students' vocabulary knowledge through a standardized vocabulary test administered to 40 respondents. The data collected were analysed using descriptive statistics to determine the overall proficiency levels. The results indicated that the students' mastery of English vocabulary was generally satisfactory, with most students achieving good scores. The study also identified several factors contributing to this achievement, including the students' interest in learning English, their active participation in classroom exercises, the effectiveness of the teaching methods used by lecturers, and the availability of supportive educational facilities, such as a language laboratory. These findings suggest that while the current level of vocabulary mastery is adequate, continued emphasis on these supporting factors could further enhance students' language proficiency, ultimately improving their academic and professional prospects.

Keywords: English vocabulary; language proficiency; descriptive study; educational facilities; teaching methods

I. INTRODUCTION

The significance of vocabulary in language acquisition and communication cannot be overstated. For non-native English speakers, particularly those in technical fields like Electrical Engineering, a strong command of English vocabulary is crucial. Not only does it enhance their academic performance, but it also plays a pivotal role in their professional success. The globalized nature of today's workforce demands that graduates be proficient in English, as it is often the *lingua franca* in international business and technical communication.

In the context of the State Polytechnic of Samarinda (PolNes), the current approach to English vocabulary instruction has proven inadequate, as evidenced by the feedback from employers who have expressed dissatisfaction with the English proficiency of PolNes alumni. This feedback highlights a critical issue that requires immediate attention. If the institution continues to produce graduates with subpar English skills, it risks damaging its reputation and, more importantly, hindering the career prospects of its students. Therefore, it is urgent to reassess and improve the methods used to teach English, with a particular focus on vocabulary, to ensure that students are equipped with the necessary language skills to thrive in their professional lives.

A considerable amount of research has been conducted on the role of vocabulary in language acquisition. Studies have consistently shown that vocabulary knowledge is a strong predictor of language proficiency. For instance, Nation (2001) emphasized that vocabulary is the foundation of language learning and is essential for effective communication. Similarly, Schmitt (2008) argued that without sufficient vocabulary, learners are unable to engage in meaningful communication, regardless of their grammatical competence.

Furthermore, research by Laufer and Hulstijn (2001) introduced the concept of "involvement load," which suggests that vocabulary acquisition is most effective when learners are deeply engaged with the words they are learning. This involves not just exposure to new words, but active use and repeated encounters with them in various contexts. However, many educational institutions, particularly in non-English speaking countries, often neglect this aspect of language instruction, focusing instead on grammar and reading comprehension. This oversight can lead to a significant gap in students' language proficiency, as seen in the case of PolNes.

In the specific context of technical education, studies have shown that students in fields like engineering often struggle with English due to the lack of focus on vocabulary in their curriculum. A study by Choudhury (2010) found that engineering students who received explicit vocabulary instruction performed significantly better in both their academic and professional communication than those who did not. This finding underscores the importance of integrating vocabulary instruction into the curriculum, especially for students who are preparing for careers in technical fields.

The studies reviewed cover a diverse array of methods and tools aimed at enhancing English vocabulary mastery among students. Armelia et al (2024; Hernawati et al, 2024) investigate the effectiveness of using "Card Games" as a learning media to improve students' vocabulary skills. Their study demonstrates how interactive and engaging games can be instrumental in vocabulary acquisition. This aligns with Purwanto and Hidayad (2022), who explore various English learning strategies for vocabulary mastery in their article in *English Education: Journal of English Teaching and Research*. They offer a comprehensive overview of effective methods for acquiring vocabulary, highlighting different educational approaches.

The role of digital tools in vocabulary learning is also prominently featured. Ambarwati and Mandasari (2020) examine how the Online Cambridge Dictionary affects students' pronunciation and vocabulary mastery, showing the significant impact of digital resources on language learning. Their findings are complemented by Aminatun and Oktaviani (2019), who evaluate the use of the "Memrise" app to improve business English vocabulary. Their study, presented in the proceedings of Universitas Pamulang, underscores the effectiveness of digital applications in language acquisition. Makaruku (2021) also contributes to this theme by discussing the role of picture cards in enhancing vocabulary mastery.

Music's impact on vocabulary learning is a recurring theme in the reviewed studies. Aguirre et al (2016) explore how incorporating songs into the curriculum can enhance motivation for learning English among primary school students in Lima, Peru. Gasma et al (2017) support this by investigating the use of songs to teach vocabulary at the senior high school level. Kuśnierek (2016) provides a broader perspective on the role of music and songs in teaching English vocabulary, illustrating how these elements can facilitate vocabulary learning across different educational settings. Additionally, Suri (2014) examines how songs can improve vocabulary mastery among sixth-grade students.

Studies focusing on students' engagement and habits further enrich the discussion. Meutia et al (2014) investigate the correlation between students' habits of listening to English songs and their vocabulary mastery and listening skills, offering insights into how listening practices affect language proficiency. Nurkolip (2019) explores how listening to English music influences vocabulary mastery, reflecting on the broader impact of such habits on language development. Sari (2020) adds to this by analysing student engagement and roles in online language courses, highlighting how digital platforms affect vocabulary learning.

Handayani and Aminatun (2020) review students' perspectives on using WhatsApp groups to improve writing abilities, showing the role of social media in educational contexts. This is complemented by Mandasari and Aminatun (2020), who discuss the use of vlogs to enhance speaking performance, demonstrating the effectiveness of digital media in developing oral skills. Oktaviani and Desiarti (2017) further explore innovative teaching methods by evaluating an ethnic snake game in speaking classes, while Oktaviani and Mandasari (2020) assess the use of Powtoon for optimizing cultural presentations in English language teaching. These studies highlight the impact of creative and digital tools in enhancing various language skills.

Rohmatillah (2014; cf. Hernawati et al, 2024) provides insights into the difficulties students face in learning vocabulary, offering a detailed analysis of common challenges and potential solutions. This study identifies specific areas where students struggle and suggests strategies to overcome these obstacles. Sari and Wahyudin (2019) explore non-English students' responses to blended learning approaches in Indonesian tertiary education, discussing the effectiveness of this instructional method. Sari (2014) examines the correlation between students' listening abilities and vocabulary mastery, providing additional data on how listening skills impact vocabulary acquisition.

The effectiveness of different teaching methods is further explored in studies by Utami (2021), who investigates various methods for mastering English vocabulary among advanced students, and Tiara et al (2024), who explore the word square method for improving vocabulary mastery. Na'imah (2022) discusses the use of singing methods to introduce English vocabulary to early childhood learners, emphasizing the importance of early language exposure. Koleini et al (2024) examine the effects of mobile-assisted learning on university students' technical vocabulary knowledge, focusing on the role of digital tools in vocabulary development.

Lastly, Li et al (2024) investigate the relationship between listening and reading vocabulary levels in relation to the CEFR, providing insights into student admissions and English as a medium of instruction. This study, published in *Languages*, offers a comprehensive view of how vocabulary knowledge affects language proficiency and academic outcomes. Collectively, these studies highlight the diverse strategies and tools available for enhancing English vocabulary mastery, reflecting the dynamic nature of language education.

Given the current state of English language instruction at PolNes, several research problems emerge:

- (1) Lack of Emphasis on Vocabulary Instruction: Despite its importance, vocabulary is not treated as a separate or significant component of the English curriculum at PolNes. This lack of emphasis may contribute to the poor English proficiency observed among the students and alumni.
- (2) Insufficient Teaching Methods: The traditional teaching methods employed at PolNes may not effectively address the needs of students, particularly in terms of vocabulary acquisition. There is a need to explore more engaging and interactive methods that can help students internalize new vocabulary.
- (3) Impact on Alumni Success: The complaints from employers regarding the English proficiency of PolNes alumni suggest that the current curriculum does not adequately prepare students for the demands of the workforce. This issue not only affects the students' career prospects but also reflects poorly on the institution.

The primary objective of this research is to assess the English vocabulary mastery of students in the Electrical Engineering department at PolNes. Specifically, the study aims to:

- (1) Evaluate the Current Level of Vocabulary Mastery: The research will measure the students' vocabulary knowledge to determine their proficiency levels and identify any gaps in their vocabulary.
- (2) Identify Factors Affecting Vocabulary Acquisition: The study will investigate the factors that contribute to the students' current level of vocabulary mastery, including the teaching methods used, the students' study habits, and the availability of resources.
- (3) Propose Recommendations for Curriculum Improvement: Based on the findings, the research will offer recommendations for improving the English curriculum at PolNes, with a

focus on enhancing vocabulary instruction. The goal is to develop a more effective approach to teaching English that better prepares students for their academic and professional lives.

(4) **Examine the Relationship Between Vocabulary Mastery and Professional Success:** The research will explore the connection between students' vocabulary knowledge and their success in professional settings, as reported by employers. This will help to highlight the importance of vocabulary in the students' future careers and provide further justification for the proposed curriculum changes.

The mastery of English vocabulary is a critical component of language proficiency, particularly for students in technical fields such as Electrical Engineering. The current approach to vocabulary instruction at PolNes is inadequate, as evidenced by the feedback from employers and the observed gaps in the students' language skills. This research seeks to address these issues by evaluating the students' vocabulary knowledge, identifying the factors that influence their language acquisition, and proposing recommendations for improving the curriculum. By doing so, the study aims to contribute to the development of more effective English language instruction at PolNes, ultimately enhancing the students' academic performance and professional success.

2 METHOD

This study adopted a descriptive research approach to examine the English vocabulary mastery among students in the Electrical Engineering program at the State Polytechnic of Samarinda. The descriptive method was selected to provide a detailed account of the students' vocabulary knowledge and the factors influencing it. The methodology involved two main instruments for data collection: a questionnaire and a vocabulary ability test.

2.1 Instruments

a) Questionnaire: The questionnaire was designed to collect supporting data related to various factors that might affect students' mastery of English vocabulary. These factors included students' interest in learning English, their motivation to improve vocabulary skills, participation in classroom activities, and their perception of the teaching methods employed by lecturers. Additionally, the questionnaire gathered information about the availability and utilization of language learning resources, such as language laboratories and other educational facilities.

b) Vocabulary Ability Test: The ability test was the primary tool for assessing the students' vocabulary proficiency. The test consisted of questions sourced from *Wordpower 1500* and *Wordpower 3000*, two well-known resources written by L.A. Hill, which are commonly used to gauge English vocabulary levels. The test was designed to measure various aspects of vocabulary knowledge, including word meanings, usage, and context.

2.2 Data Collection

The study population included students from the 2016, 2017, and 2018 cohorts of the Electrical Engineering program, comprising a total of 243 students from 10 classes across the D3 and D4 programs. To ensure the study's findings were representative, a random sampling method was employed. From the total population, 40 students were randomly selected to participate as respondents. These students were administered the vocabulary test and were also required to complete the questionnaire, ensuring that both quantitative and qualitative data were collected for comprehensive analysis.

2.3 Data Analysis

The data obtained from the vocabulary ability test were analyzed using descriptive statistical methods, specifically focusing on the calculation of the mean and standard deviation, following the approach outlined by Harahap (1982). The formulas used are as follows:

- **Mean (M):** $M = \frac{\sum fd}{N}$
- **Standard Deviation (DS):** $DS = \sqrt{\frac{\sum fd^2}{N} - \left(\frac{\sum fd}{N}\right)^2}$

Where:

- $\sum fd$ represents the mean score of the students.
- $\sum fd^2$ refers to the total score obtained by all students.

- NNN is the number of respondents.
- DSDSDS denotes the standard deviation.
- iii is the interval class contents.

The results from the mean and standard deviation calculations were then used to classify the students' vocabulary mastery into five categories, as proposed by Harahap (1982 & 217):

- **A (Very Good):** Scores between 81-100
- **B (Good):** Scores between 61-80
- **C (Fair):** Scores between 41-60
- **D (Poor):** Scores between 21-40
- **E (Very Poor):** Scores between 0-20

This categorization provided a clear picture of the distribution of vocabulary mastery levels among the students, highlighting areas where improvement was needed.

By combining the results of the vocabulary test with insights gathered from the questionnaire, the study aimed to offer a well-rounded understanding of the factors influencing English vocabulary mastery among the students. The data collected provided valuable feedback on the effectiveness of current teaching methods and the adequacy of educational facilities, with the ultimate goal of informing future improvements in the teaching and learning processes.

3. RESULTS AND DISCUSSION

In this chapter, the results of research obtained from the field will be presented. Data will be presented both through questionnaires and test results.

Distribution of questionnaires to students was conducted on May 2019. The total number of students who participated in this activity were 40 students. They were from semester II, IV, and VI of academic years 2016, 2017, and 2018. All items in questionnaires were about the teaching learning process (TLP) of English Vocabulary. The questionnaires consisted of Yes / No questions and multiple choice questions.

The implementation of the vocabulary test was also held on May 2019. There were also 40 students who participated in this test. They were the same students from semester II, semester IV, and semester VI from the same academic years. This vocabulary test consisted of four parts with one hundred (100) items. The type of items varies greatly; synonyms, antonyms, derivations, and structures (words in sentences), which were quoted from two books: Word Power 1500 and Word Power 3000 by LA Hill.

3.1 The Process of Teaching English Vocabulary

In this section data will be presented through questionnaires. This data includes teaching and learning activities in English vocabulary; students' interest in studying vocabulary, students' willingness in doing vocabulary exercises, teaching method applied by the lecturers, availability of learning facilities, utilizing language laboratory, and how students memorize words. This data presentation is done in form of tables.

Table 1 Interest in Vocabulary learning

Num	Description	Total	Percentage
1.	Very interested	14	35%
2.	Interested	26	65 %
3.	Less interested	-	-
4.	Not interested	-	-

The table above shows that 35% of students said that they were very interested, 65% of students mentioned that they were interested, 0% of students said that they were less interested, 0% of students said that they were not interested in studying vocabulary.

Table 2 Students' Interest in Vocabulary Exercises

Num	Description	Total	Percentage
1.	Very interested	12	30 %
2.	Interested	28	70 %

3.	Less interested	-	-
4.	Not interested	-	-

The table above shows that 30% of students said that they were very interested in doing vocabulary exercises, 70% of students said that they were interested in doing vocabulary exercises, and 0% of students said that they were less interested or not interested at all in doing vocabulary exercises.

Table 3 Students' Opinions on Teaching Methods Applied by Lecturers

Num	Description	Total	Percentage
1.	Very interesting	8	20 %
2.	Interesting	28	70 %
3	Less interesting	4	10%
4	Not interesting		

The table above shows that 20 % of students said that the teaching method applied by their lecturers was very interesting, 70% of students said that the teaching method applied by their lecturers was interesting, 10% of students said that the teaching method applied by their lecturers was less interesting, and no students said that the teaching method applied by their lecturers was totally bad.

Table 4 Availability of Learning Facilities

Num	Description	Number of Students	Percentage (%)
1.	Very complete	6	15%
2.	Complete	24	60 %
3.	Less complete	10	25 %
4.	Not complete	-	-

The table above shows the students assessment toward the availability learning facilities: 15 % of students said that the learning facilities were very complete, 60% of students said that the learning facilities were complete, 25% of students said that the learning facilities were less complete, and no student said that the learning facilities were not complete.

Table 5 Usefulness of the Language Laboratory

Num	Description	Number of Students	Percentage (%)
1.	Very useful	14	35 %
2.	Useful	26	65 %
3.	Less useful	-	-
4.	Not useful	-	-

The table above shows that 35% of students said that the language laboratory was very useful, 65% of students said that the language laboratory was useful, and students said that the language laboratory was less useful or not useful at all in supporting the process of teaching and learning vocabulary.

Table 6 How Students Memorized Vocabulary

Num	Description	Total	Percentage
1.	Open dictionary	14	35%
2.	Memorizing through reading texts	22	55 %
3.	Memorizing with pictures	4	10%
4.	Memorize through songs	8	20%

5	Memorizing via internet & games	6	15%
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The table above shows how students memorize vocabulary; 35% of students memorized vocabulary by opening dictionaries, 55% of students memorized words through reading texts, 10% of students memorized words with pictures, 20% of students memorized words through songs, 15% of students memorized through internet & game

Table 7 Procedure for Rewarding Vocabulary

Num	Description	Total	Percentage
1.	Memorize the vocabulary and words	4	20%
2.	Memorize with meaning	9	45 %
3.	Recognize the words & writing	7	35%
4.	Recognize the words & words	-	-

The table above shows the procedure for memorizing vocabulary by students; 45% of students memorize vocabulary with meaning. 20% of students memorized the vocabulary with their words, 35% of students recognized the words and writings, and 0% of students stated that the procedure carried out recognized the words and words.

Table 8 How Students Refused Vocabulary

Num	Description	Total	Percentage
1.	Open the dictionary & memorize it	7	35%
2.	Memorizing through reading tests	11	55 %
3.	Memorize with pictures	2	10%
4.	Memorize through songs	4	20%
5	Memorize via internet & games	3	15%

The table above shows how students memorize vocabulary; 35% of students memorize vocabulary by opening dictionaries, 55% students memorize words by reading texts, 20% memorize words by songs and 10% of students memorize images, 15% of students memorize through internet & games.

Table 9 Difficulties of Students In Learning Vocabulary

Num	Description	Total	Percentage
1	Less in pronunciation	8	40%
2	Lack of recognizing / memorizing words	5	25%
3	Less memorizing the meaning & writing	6	30%
4	Lack of passion / less active	2	10%
5	Get bored quickly and easily forget	2	10%
6	Poor book and dictionary facilities	5	25%

The table above shows student difficulties in learning vocabulary including 40% of students stated difficulties in pronunciation, 25% of students stated they did not understand / memorize words, 30% of students stated that they lacked meaning and writing, 10% of students stated lack of enthusiasm or inactivity , 10% of students stated that they lacked book and dictionary facilities in learning the vocabulary.

3.2 Test results

As stated earlier that the vocabulary test was conducted on May 2019; just after the filling out of the questionnaires. There were 24 students participated at the first chance, and 16 students

participated at the second chance, consisting of 9 students from semester II; 24 students from semester IV, and 7 students from semester VI. The vocabulary test itself consisted of four parts with 100 questions/items

The vocabulary test results will be presented in the form of tables containing scores obtained by students from the vocabulary test. As a first step the scores mean are searched for by using the mean formula

$$M = \frac{\sum X}{N} \quad M + 1 = \frac{(fd)}{N}$$

Description:

M = Mean

$\sum X$ = Amount of value obtained

N = Number of individuals/students

Table 10 Vocabulary Test Results

Number			Number		
		Scores			Scores
Order	Stu-Number		Order	Stu-Number	
1.	16612006	68	21.	17612043	71
2.	16612010	76	22.	17612044	72
3.	16612017	72	23.	17612049	72
4.	16612021	82	24.	17612051	76
5.	16612029	61	25.	17642002	71
6.	16612031	52	26.	17642005	69
7.	16612051	85	27.	17642014	70
8.	17612001	67	28.	17642015	80
9.	17612005	72	29.	17642021	72
10.	17612007	63	30.	17642024	74
11.	17612014	72	31.	17642027	72
12.	17612018	76	32.	18612004	85
13.	17612025	79	33.	18612005	72
14.	17612027	80	34.	18612020	78
15.	17612028	76	35.	18612021	86
16.	17612030	72	36.	18612022	80
17.	17612033	76	37.	18612036	82
18.	17612035	72	38.	18612037	74
19.	17612037	75	39.	18612038	70
20.	17612039	73	40.	18612048	77

Table 11 Frequency Distribution of Test Scores

Level		Tally	F	D	Fd	(fd) ²
I	90 - 93	0	0	+5	0	25
II	86 - 89	I	1	+4	4	16
III	82 - 85	III	4	+3	12	144
IV	78 - 81	IIII	5	+2	10	100
V	74 - 77	IIII III	9	+1	9	81
VI	70 - 73	IIII IIII IIII	15	0	0	0
VII	66 - 69	III	3	-1	-3	9
VIII	62 - 65	I	1	-2	-2	4
IX	58 - 61	I	1	-3	-3	9
X	54 - 57	-	0	-4	-0	0

XI	50 - 53	I	1	-5	-5	25
				N = 40	+22	417

Then, the average scores will be searched based on the scores in the table above using the following formula:

$$M + 1 \frac{(fd)}{N}$$

$$M = 71,5 + 3 \frac{22}{40} = 1,65$$

$$\frac{70+73}{2} = 71,5$$

$$71,5 + 1,65 = 73,15$$

Then, the standard deviation formula will be applied as follows :

$$SD = i \sqrt{\left(\frac{\sum fd^2}{N} - \frac{(\sum fd)^2}{N} \right)}$$

$$SD = i \sqrt{\left(\frac{417}{40} - \frac{(22)^2}{40} \right)}$$

$$SD = i \sqrt{(10,425 - 12,1)}$$

$$SD = i \sqrt{-1,68} = 1,3$$

After the standard deviation value is found then the calculation is done using the following formula:

- M + 2, 25 SD = 100
- M + 1, 75 SD = 90
- M + 1, 25 SD = 80
- M + 0, 75 SD = 70
- M + 0, 25 SD = 60
- M - 0, 25 SD = 50
- M + 0, 75 SD = 40
- M + 1, 25 SD = 30
- M + 1, 75 SD = 20
- M + 2, 25 SD = 10

The calculation results are as follows :

- 73,15 + (2,25 X 1,30) = 76,075 → 76
- 73,15 + (1,75 X 1,30) = 75,43 → 75
- 73,15 + (1,25 X 1,30) = 74,78 → 75
- 73,15 + (0,75 X 1,30) = 74,13 → 74
- 73,15 + (0,25 X 1,30) = 73,48 → 73
- 73,15 - (0,25 X 1,30) = 72,83 → 73
- 73,15 - (0,75 X 1,30) = 72,18 → 72
- 73,15 - (1,25 X 1,30) = 71,53 → 72
- 73,15 - (1,75 X 1,30) = 70,88 → 71
- 73,15 - (2,25 X 1,30) = 70,23 → 70

Further description :

- 81 - 86 → 100
- 75 - 80 → 90
- 69 - 74 → 80
- 63 - 68 → 70
- 57 - 62 → 60
- 51 - 56 → 50

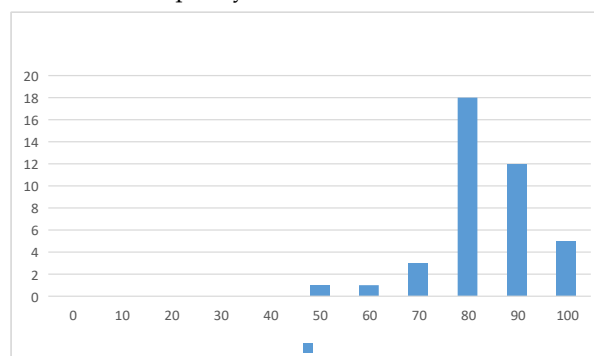
45 – 50 → 40
39 – 44 → 30
33 – 38 → 20
27–32→10

The last step is performing the distribution of frequency and percentage based on the results of data processing, in the form of tables.

Table 12 Distribution Of Frequency And Percentage Based On Data Processing Results

Scores	Frequency	Percentage	Description
100	5 students	12,5 %	
90	12 students	30 %	
80	18 students	45 %	- 39 students got score <u>60 up</u>
70	3 studenrs	7,5 %	
60	1 student	2,5 %	
50	1 student	2,5 %	- 1 student got score under 60
40	--	--	
30	--	--	
20	--	--	
10	--	--	

Frequency Distribution Curve



The method of analysis used is a descriptive analysis that is selected according to the condition of this study.

As stated earlier the results of the data processing of the test results specifically show the students acquisition scores as follows:

- Students who get score 100 = 5 persons 12,5%
- Students who get score 90 = 12 persons 30%
- Students who get score 80 = 18 persons 45%
- Students who get score 70 = 3 persons 7,5%
- Students who get score 60 = 1 person 2,5%
- Students who get score 50 = 1 person 2,5%
- Students who get score 40 = nil
- Students who get score 30 = nil
- Students who get score 20 = nil
- Students who get score 10 = nil

Overall the scores obtained by students is:

- Students who get scores 60 up consist of 39 persons or 97,5%
- Student who get score under 60 consists 1 person or 2, 5%

The information above shows that the test participants who obtained scores 60 (sixty) up reached 97,5% while on the other hand 2,5% of the test participants obtained score under 60.

This means that there were 97,5% of students who were in good and very good categories according to the score category classification (KKN) (Harahap 1982: 212 & 217) used in this study, while 2,5% of students were in enough and less categories. While the average score obtained based on the results of the frequency distribution of the test scores is 73.15.

In connection with the acquisition of the average score above, Harahap (1982: 185) recommends that if all students have obtained an average score of 60 or more, then the teaching program does not need to be repeated. This means that the teaching program has successfully been done and does not need to be repeated again. A score of 60 is considered as a minimum standard or the lowest limit of students success.

Therefore, the hypothesis that has been used previously which reads "The mastery of English Vocabulary of Electrical Engineering Students of the State Polytechnic of Samarinda is good", can be well accepted.

Data analysis showed that the mastery of English vocabulary of the students of Electrical Engineering-The state Polytechnic of Samarinda was included in Good category. The category of scores 61 to 100 is a good achievement which is in the **good** and **very good** categories.

The basis for determining the students scores is in the good category refers to the opinion given by an expert who struggled in this field, namely Harahap (1982). Good achievement or good scores shown by students as above is very likely to be inseparable from its relation (parallel) to several factors:

3.3 Students Interest on vocabulary

Interest is the main support for students in learning certain subject. The same is true in learning English vocabulary. If a student has a great interest in learning English vocabulary, then of course he will have a great learning motivation and in turn he will have good mastery of English vocabulary. Conversely, if a student learns English especially English vocabulary but not with great interest or let's say he learns English vocabulary only because of the graduation requirements, it is sure that his vocabulary mastery will not be much helpful. The interest of the students of Electrical Engineering in learning English vocabulary based on the existing data shows an encouraging condition, as many as 100% of them stated that they were happy and very happy to learn English vocabulary..

3.4 Students Willingness to Work on Vocabulary Exercises

Willingness and seriousness of students in working on vocabulary exercises given by the instructor is what really determines the success of the students itself. In any field of study if students show seriousness in learning / training it will certainly give good results, and likewise in English vocabulary lessons. Exercises given by the instructor once or twice a week can be done well. In this connection the existing data shows that 100% of students expressed pleasure and were quite happy doing the vocabulary exercises given by the instructor.

The seriousness of students in working on vocabulary exercises is very important in the development of students' mastery on vocabulary. This can be compared with students who do not have seriousness in doing the exercises given by the teacher, then of course the situation will speak differently, students will certainly find it difficult to develop mastery on vocabulary.

The fact that 100% of students are happy and very happy to do vocabulary exercises as mentioned above seems to have a good influence on the development of students vocabulary mastery. This can be proven from the results of the vocabulary test given, with the acquisition of an average score of 73.15..

3.5 Teaching Method applied by the Lecturer

The teaching method is at all times subject to discussion by educators. Talks are usually carried out in official or informal settings. The discussion material is based on how to choose, concoct and apply suitable teaching methods in order to achieve maximum learning goals.

Teacher qualifications have a close relationship with the work of applying teaching methods, a teacher who has a good qualification base is also usually able to choose and apply good and suitable teaching methods. Teachers of English in Electrical Engineering majors and other majors / study programs can be said to be 99% qualified graduates from IKIP, FKIP and Faculty of Letters. For that reason, it is theoretically potential to be able to choose, concoct and apply good and appropriate teaching methods to achieve maximum learning goals.

Based on the existing data, only 10% of respondents stated that the teaching method for teachers needed to be developed, and 90% of them supported the application of the teaching methods applied so far.

3.6 Availability of Learning Facilities

Readiness and completeness of learning facilities in one educational institution is a very decisive factor to achieve the goals of the teaching and learning process. If one educational institution does not have complete learning facilities, like a trader lacks of capital, it will be difficult for him to earn large profits. While traders with large capital are certainly a great opportunity to get big profits.

In the State Polytechnic of Samarinda, educational facilities can be considered satisfactory, the means to learn English is quite encouraging. Language laboratories have three (3) rooms, a library with books and dictionaries is quite available, from the data obtained only 25% of respondents mentioned the need to develop complete learning facilities, while the other 75% were satisfactory with the available learning facilities.

3.7 Utilizing Language Laboratory

Language laboratories are a part of supporting facilities in learning English. In the process of learning English, the role of language laboratories developed lately is not only for listening but also for other English language skills, speaking, structure, and reading.

The existence of a language laboratory is also an assessment of the general public that the State Polytechnic educational institution is an educational institution that has good preparation to conduct higher quality education.

The language laboratory owned by Samarinda State Polytechnic consists of three (3) rooms with a capacity of twenty-four (24) seats per room.

From the existing data there were 100 % of students stated that the language laboratory was useful and very useful in supporting the learning process. It can be understood that students feel the great use of language laboratory in the process of learning English, especially in developing listening skills, while we are aware that their listening skills can be well developed when vocabulary mastery is good.

4. CONCLUSION

In this chapter, we present the conclusions drawn from the analysis conducted in the previous section, alongside some recommendations deemed essential for further improvement in the English vocabulary mastery of Electrical Engineering students at the State Polytechnic of Samarinda. The findings from the research indicate that the vocabulary proficiency among these students is generally good. The majority of respondents achieved scores that fall into the 'good' and 'very good' categories, reflecting a solid grasp of English vocabulary.

Several factors contribute to this positive outcome. Primarily, high levels of student interest and motivation play a crucial role. The active engagement and willingness of students to complete assignments and participate in exercises significantly support their vocabulary learning process. Additionally, the teaching methods employed by instructors are instrumental in this achievement. Effective teaching strategies, combined with the availability of learning resources, such as language laboratories, enhance the overall learning experience. These supporting factors collectively foster an environment conducive to vocabulary acquisition.

However, there is room for further enhancement. Based on student feedback obtained through questionnaires, it is clear that there is a perceived need for a more focused approach to vocabulary instruction. Many students have suggested that vocabulary should be taught as a separate subject. This recommendation aligns with the notion that dedicated vocabulary instruction could lead to more significant improvements in language proficiency. By treating vocabulary as a distinct area of study, students could benefit from a more structured and intensive approach to mastering new words and their usage.

Moreover, while vocabulary is crucial, other language skills, particularly reading and speaking, also require dedicated attention. It is recommended that reading and speaking be taught as separate subjects to ensure that students develop well-rounded language skills. This

approach would provide students with targeted practice and instruction in these essential areas, which are integral to effective communication in English.

An additional recommendation is to increase the number of English learning hours. Currently, students receive three hours of English instruction per week. Extending this to five hours per week would allow for a more comprehensive and immersive learning experience. This increased time allocation would enable students to engage more deeply with the language, practice their skills more extensively, and achieve better results. The additional hours would provide more opportunities for students to refine their vocabulary, reading, and speaking abilities, contributing to overall language development.

While the current level of vocabulary mastery among Electrical Engineering students at the State Polytechnic of Samarinda is commendable, there are several avenues for further improvement. Addressing the need for separate vocabulary instruction, enhancing the focus on reading and speaking skills, and increasing the total learning hours are recommended strategies to build upon the existing strengths. By implementing these suggestions, it is anticipated that students will gain a more profound and practical command of English, which will be beneficial in their academic and professional pursuits.

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