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Assessing the Relationship between Vocabulary Learning Strategies Use and Vocabulary Knowledge at Khairun University

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Abstract

The characteristic of vocabulary learning skills is different from any other language learning skill. It requires self-willingness and experience to achieve a higher vocabulary number or specific language proficiency level. Students with higher vocabulary knowledge seem to have tremendous advantages in comprehending language sources. At the same time, their counterparts find that vocabulary is their barrier to acquiring, understanding, and even using the target language. This study aims to examine whether or not students' vocabulary learning strategies contribute to their vocabulary knowledge. The study participants were second-year students of the English Department at Khairun University. The vocabulary strategy data were obtained from a questionnaire developed by Gu and Johnson (1996), while the vocabulary knowledge used a validated version of the Vocabulary Levels Test by Schmitt et al. (2001) and the Word Associates Test (WAT) developed by Read (1993; 2004). The result revealed that students preferred indirect effective strategies to acquire new words, while indirect social cooperation was the least used strategy. However, students' vocabulary strategy scores correlated negatively to the breadth and depth of students' vocabulary knowledge. Students need special treatment to enhance their vocabulary knowledge.

Keywords: *Vocabulary learning strategy, vocabulary knowledge, breadth, depth*

Introduction

Vocabulary is an essential and challenging part of learning a foreign language. It supports learners in comprehending receptive skills, such as understanding a text or listening to the audio, and productive skills, such as writing and speaking. Vocabulary comprehension is also known as vocabulary knowledge (VK). (Fan, 2003) said vocabulary knowledge is a significant component of language mastery. There are two components called the breadth and depth of vocabulary knowledge. The breadth of knowledge refers to the particular level of vocabulary numbers a learner knows. The depth of vocabulary is the various aspects surrounding a word, like the meaning, pronunciation, spelling, or usage (Nation, 2001). Students with higher vocabulary knowledge seem to have tremendous advantages in comprehending language sources. At the same time, their counterparts find that vocabulary is their barrier to acquiring, understanding, and even using the target language. Weighing the importance of vocabulary knowledge, learners must determine how to increase their knowledge.

The characteristic of vocabulary learning skills is different from any other language learning skill. Learners might find difficulties while encountering the subject. Moreover, the skill involves the individual willingness and experience to improve the skill(Oxford, 1989). Teachers and parents are only there to facilitate the learning process.

To enhance their lexical items, learners apply particular self-directed learning strategies. The result of a previous study at Khairun University discovered that the learners tended to use all types of vocabulary learning strategies from Schmitt's vocabulary learning strategies taxonomy since English was a foreign language for the students. They tried to encounter the other skills through understanding vocabulary (Adam & Magfirah, 2022). Likewise, learning strategies for vocabulary acquisition are crucial for learners as they must enhance their linguistic competence to conquer other language skills.

The English ability of the English Department at Khairun students varies since they have different language learning experiences. This study will examine the correlation between students' vocabulary learning strategy and their vocabulary knowledge as second-year students at Khairun University.

Method

This study used a descriptive quantitative method. Quantitative research is a method using statistical data. It is relevant to this study because the data will be collected through questionnaires and tests. The result is then converted into numerical data to be exported for statistical analysis.

The participants are all registered second-year students of the English Department at Khairun University. Most students use Bahasa Indonesia as their mother tongue, but some can speak the local language. The student's English proficiency varies, but it can be assumed that they have a lot of experience in English since they have studied English for an average of 8 years. Additionally, all classes require them to use English as the working language. The participants also passed some English skills subjects such as structure, reading, writing, listening, and speaking. The questionnaire and test will be given to the participant in April 2023.

Research Instrument

a. Vocabulary Learning Strategy

This study used an adapted questionnaire from previous studies (Gu & Johnson, 1996; Teng, 2015) to examine the participants' strategies based on Schmitt's (1997) taxonomy of VLS—the section aimed to learn student vocabulary strategies through a 5-point Likert scale. The scale was (1) Never to (5) Always. The questionnaire consisted of 40 statements of 10 strategies. If the mean score is over 3.5, the frequency degree is deemed high, while if the mean score is lower than 2.4, the degree is considered down. Moreover, the range of scores falling between two degrees, the degree will be perceived as medium (Oxford, 1989). Since the participants were English Literature students, the questionnaire was prepared in English.

b. Vocabulary Test

The vocabulary test aims to assess vocabulary knowledge. There were two vocabulary tests. The first test was to test students' breadth of vocabulary. The measurement used the Vocabulary Levels Test (Schmitt et al., 2001). There were two versions with the same difficulty level, and this study used the first version as it covered the commonly used vocabulary. The test included a four-level test, starting from the 2,000-word level, 3,000-word level, 5,000-word level, and 10,000-word levels. The format of the test will match words to their meanings. An example of the test is as follows:

l	business	
2	clocks	_____ part of a house
3	horse	_____ animal with four legs
4	pencil	_____ something used for writing
5	shoe	
6	wall	

Participants must pair three words on the left with their meanings on the right side. The right answer was given one score; thus, the participant would score 120 if they answered all the questions correctly.

Another test for vocabulary knowledge was the Word Associates Test (WAT) (Read, 1993, 2004). The test is a multiple-choice question. The answer was built in three connections with the question including meaning, collocation, and the mechanism of constructing the words. The test consists of 50 items with six options divided into two groups and separated by a line. The example of the test is as follows:

Savage

Wild original cruel	Dictatorship mess sight

One point will be given to the correct answer. There were three correct answers for one question; thus made, the total score for this test would be 150 points.

Techniques for Analyzing Data

The descriptive statistics of the vocabulary learning strategies and vocabulary knowledge were obtained first. The author then analysed the scores of the vocabulary learning strategies and two vocabulary tests with IBM SPSS Statistics. Then, descriptive statistics, a t-test, and a two-tailed Pearson correlation analysis were applied.

Findings

Commonly Used Vocabulary Learning Strategy

This part aims to answer the first research question. To determine the most commonly employed strategies of the participants, the average score of every strategy was computed. The outcomes are illustrated in the following table:

Table 1. Vocabulary Learning Strategies

Strategies	Statement	Mean	Std. Deviation	Category
Indirect Effective	21, 22, 23, 24, 25, 26, 27, 28, 29	4.1	0.97	High
Indirect Metacognitive Monitoring and Evaluating	30, 31, 33	3.9	0.27	High
Direct Cognitive Practice	7, 9, 11, 37	3.8	0.27	High
Direct Cognitive Analyzing Strategy	4, 16, 20, 32, 34	3.5	0.27	High
Direct Cognitive Creative Strategy	10, 40	3.46	0.91	Medium

Direct Memory Applying Strategy	6, 12, 13, 14, 15	3. 43	0.39	Medium
Indirect Metacognitive Planning	17, 18	3.4	0.37	Medium
Indirect Cognitive Creative Strategy	1, 5, 8	3.4	0.28	Medium
Direct Compensation Guessing	2, 3, 36	3.1	0.22	Medium
Indirect Social Cooperation	19, 38	2.94	0.27	Medium

Table 1 displays the student's most commonly used Vocabulary Learning Strategies. The most widely employed strategy is the Indirect Effective strategy (mean: 4.1). It covers nine statements showing that students know vocabulary numbers are essential to improve their English skills. The calculation is followed by the Indirect Metacognitive Monitoring and Evaluating (mean: 3.9). Three statements cover this strategy. Even though it is an indirect strategy, the statements have shown that student realises the need to do some actions before achieving more vocabulary numbers. Direct Cognitive Practice Strategy (mean: 3.8) comes in third place as the most used strategy. The statements in this strategy have already shown an active engagement with the learning media to achieve their goals. The least used strategy is Indirect Social Cooperation (mean: 2.9). The statement requires students to interact with other people, either their friends or teachers. Students tend to avoid working with other people while trying to enrich their vocabulary.

If the strategies were broken into specific statements, here are the most frequently used strategies:

Table 2. The Rank of the Most Frequently Used Strategy

Statement	Mean	Level
21	4.43	high
23	4.36	high
26 and 28	4.20	high
31	4.18	high
27	4.15	high
25	4.13	high
22 and 40	4.11	high
7	4.04	high
11	4.02	high
29	3.97	high

Table 2 presents specific vocabulary learning strategies students used the most. Eight of nine strategies from the Indirect Effective Strategy (statement 21-29) make it to the list of the most frequently used strategies, along with one Indirect Metacognitive Monitoring and Evaluating strategies (statement 31), two Direct Cognitive Practice strategies (statements 7 and 11), and one Direct Cognitive Creative strategy (statement 40). On the top of the list is the statement 21 (mean 4.43). The mean score indicates that most students know the importance of vocabulary knowledge to support their English skills. The next most used strategy is the statement 23 (mean 4.36). Since the participants are English Literature Department students, most of the learning material is available in English. Therefore, students must develop enhanced reading skills to understand all the materials. Reading skills are supported by having an

enormous sum of vocabulary. The third place of the most used strategies is statements 26 and 28 (mean 4.20). Being the top student in the class motivates students. As said before, a wide English vocabulary can support students to do better in their studies as they can understand the material better.

Moreover, only three direct strategies make it to the rank of most used strategies. Statement 40 (mean 4.11) becomes one of the most regularly used strategies. This is such an emphasis that the participants are digital natives. Digital natives are those who were born after 1980. Major qualities from their daily activity, such as searching for information, are adjusted through digital tools (Lewis, 2018). That statement is followed by statement 7. A movie is one of the best ways to learn a foreign language. Through film, learners can engage with the language. Films also show which part of the language is used in real life rather than the ones from the book. Statement 11 (mean 4.02) is also on the list. This result implies that students still need their teacher to accompany them in their activity.

Vocabulary Knowledge

The Breadth of Vocabulary Knowledge

The breadth of vocabulary knowledge was assessed using the Vocabulary Levels Test (Schmitt et al., 2001). This part reveals the average score of the class and which level of test the students master the most. The scoring standard of Khairun University is applied to know the scores of the students, and the mean score of the test is presented below:

Table 3. The Mean Score of Breadth of Vocabulary

Variable	N	Mean	Std. Deviation
Breadth of Vocabulary	44	43.86	20.51
Valid N (listwise)	44		

Table 3 discloses the mean score of the breadth of vocabulary knowledge. Forty-seven students participated in the test, but only 44 participants were considered valid data. The mean score of the participants is 43.86. The result is viewed as poor since more than half of the students got a very poor mark. The rest students' scores were diffused equally from distinctive to poor.

The Depth of Vocabulary Knowledge

The depth of vocabulary knowledge was measured using the Word Associates Test (WAT) (Read, 1993, 2004). This part also used score standardization from Khairun University. The mean score of the depth of vocabulary is presented below:

Table 4. The Mean Score of Depth of Vocabulary

Variable	N	Mean	Std. Deviation
Depth of Vocabulary	44	61.53	15.70
Valid N (listwise)	44		

Table 5 discloses the mean score of the vocabulary depth test. The table shows that the average mark on the test is 61.53. It indicates that students' quality in understanding words meaning, collocation and linguistics progression is good enough. This result arises since students' marks are scattered from the distinctive level to the very poor grade.

The Correlation Between Vocabulary Learning Strategies and Vocabulary Knowledge

After calculating the score of each variable, this part aims to evaluate the correlation between the vocabulary learning strategy used and the breadth and depth of vocabulary knowledge. The following table illustrates the correlation of the variables.

Table 5. The Correlation between VLS and the Breadth and Depth of Vocabulary Knowledge

Variables	VLS	Breadth of Vocabulary	Depth of Vocabulary
VLS	1	- .123	-.081
Breadth of Vocabulary	-.123	1	.544**
Depth of Vocabulary	-.081	.544**	1

**Correlation is significant at the 0.01 level (2-tailed)

As shown in Table 6, the breadth and depth of vocabulary knowledge are negatively correlated with vocabulary learning strategies. The correlation between vocabulary learning strategy and the breadth of vocabulary is -0.123, while the correlation between vocabulary learning strategies and the depth of vocabulary knowledge is -0.081. Additionally, the correlation between the breadth and the depth of vocabulary knowledge is high and positive (r= 0.544).

Discussion

To answer the first question, the researchers assessed the most used vocabulary strategies used by the second years students of Khairun University. The findings showed that most students used indirect effective strategies to enhance their vocabulary numbers. Indirect Metacognitive Monitoring and Evaluating and Direct Cognitive Practice Strategy follow the strategies. This result seemed to be different from the study by Teng (2015) that students preferred direct strategies rather than indirect ones. The difference possibly came from the different contexts of the participants. The present study used English Literature students as the subject, while Teng (2015) used low-proficiency students from China. In the Chinese context, the teacher often leads the students to use memory strategies. Therefore, the English learning process focused more on memorizing English words directly. The subject of this study is fully aware that vocabulary knowledge is an important factor in securing their degree.

The opinion is supported by the specific strategies the students used. Statements 21, 23, dan 26 dan 28 are among the top three of the most frequently used strategies. Another study by (Gu & Johnson, 1996) also pointed out a different result from the present study. While the present study participants focused on vocabulary as the core of English so they could get a better grade, Chinese participants believed that they should learn vocabulary and put it to use and use a dictionary if they cannot guess the meaning of the words. A similar study in the Indonesian context by Noprianto & Purnawarman (2019) also pointed out using a direct strategy, using a bilingual dictionary to understand the meaning of English words. The awareness of the importance of vocabulary knowledge is a good thing. It can motivate participants to try various conditions to develop their lexical knowledge. However, students must also refocus to develop their vocabulary numbers.

Concerning the second research question, a descriptive analysis of the breadth and depth of vocabulary knowledge needs to be evaluated. The result found that the breadth of students' vocabulary knowledge was far below the good level. In general, students only master the 2000-word level. Considering the poor scores, students must face obstacles in mastering English skills since people should at least master a 2000-word vocabulary size to be functional

in writing and speaking activities for students who have studied English for long periods (Putra, 2009).

Furthermore, the result of the depth of vocabulary knowledge seemed to be way better than the result of the breadth of vocabulary. In general, students can distinguish words meaning, collocation and linguistic progression of the word. In other words, students can develop the ability to distinguish semantically related words and, more generally, their knowledge of the various ways in which individual words are linked to each other (Read, 2004). The result of the vocabulary knowledge tests was correlated to the vocabulary learning strategies.

The result from the correlation test implied that (i) the breadth and depth of vocabulary knowledge were negatively correlated, and (ii) the breadth and the depth of vocabulary were significantly correlated. Result (i) seemed not in line with the previous study since the previous studies revealed a positive correlation between the variables (Gu & Johnson, 1996; Teng, 2015). In those studies, the participants were not English Department students. Thus, even if they got lower scores on the vocabulary knowledge test, the result would not contribute to their studies. Participants in the present studies knew that conquering numerous lexical items would help them understand learning material, get a better grade, and graduate on time. The result of the present study supported the previous correlation study of vocabulary learning strategies in the Indonesian context, even though the previous study used a different test to evaluate students' vocabulary knowledge (Noprianto & Purnawarman, 2019). The student's awareness in the present study makes them attempt any strategies to enhance their vocabulary numbers, but the result of the vocabulary test did not reflect their attempt to acquire vocabulary size. Result (ii) seemed to confirm that both tests were constructed for the same dimension, vocabulary knowledge (Teng, 2015). Possessing a large vocabulary tends to be in line with knowing different aspects of the word knowledge. Learners who knew more words could describe a stimulus word ingreater depth (Teng, 2015).

Conclusions

Vocabulary is a special skill that supports students in mastering other language skills. Therefore, learners tend to try any strategy to develop their vocabulary knowledge. This study gives empirical evidence of students' vocabulary learning strategy use and vocabulary knowledge of second-year students at Khairun University.

The result pointed out that students are conscious that mastering numbers of lexical items would support their study as most chose the indirect effective strategy as the most frequently used strategy. Moreover, the students' choice of vocabulary learning strategies was negatively correlated to their vocabulary knowledge test.

Considering the result of this study, the present study might not be able to cover the whole broad information of the issues in the Indonesian context since the study only focuses on the students who need to master vocabulary to support their study. It might be interesting to involve non-English students at the university level.

References

Adam, S., & Magfirah, S. (2022). Vocabulary Strategies for English Learners. *ELS Journal on Interdiciplinary Studies in Humanities*, *5*(3), 563–572.

Fan, M. Y. (2003). Frequency of Use, Perceived Usefulness, and Actual Usefulness of Second Language Vocabulary Strategies: A Study of Hong Kong Learners. *The Modern Language Journal*, *87*(2). https://doi.org/10.1111/1540-4781.00187

Gu, Y., & Johnson, R. K. (1996). Vocabulary Learning Strategies and Language Learning

Outcomes. *Language Learning*, *46*(4). https://doi.org/10.1111/j.1467-1770.1996.tb01355.x

Lewis, D. (2018). Digital native. *New Design*, *2018-January*(133), 60–61. https://doi.org/10.23956/ijarcsse.v7i7.111

Nation, I. S. P. (2001). *Learning Vocabulary in Another Language* (Chapelle, Carol A & S. Hunston (eds.)). Cambridge Applied Linguistics.

Noprianto, E., & Purnawarman, P. (2019). EFL students' vocabulary learning strategies and their affixes knowledge. *Journal of Language and Linguistic Studies*, *15*(1), 262–275. https://doi.org/10.17263/jlls.547730

Oxford, R. L. (1989). Use of language learning strategies: A synthesis of studies with implications for strategy training. *System*, *17*(2), 235–247. https://doi.org/10.1016/0346-251X(89)90036-5

Putra, Y. (2009). The Relationship between Vocabulary Size and Writing Ability of the English Language Laboratory Students at Universitas Pelita Harapan. *Unpublished Thesis*.

Read, J. (1993). *The Development of a New Measure of L2 Vocabulary Knowledge. Language Testing*. *10*, 355–371. https://doi.org/https://doi.org/10.1177/026553229301000

Read, J. (2004). *Word Associates Test (Version 4.0).* http://www.lextutor.ca/

Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the Vocabulary Levels Test. *Language Testing*, *18*(1). https://doi.org/10.1177/026553220101800103

Teng, F. (2015). Assessing the Relationship between Vocabulary Learning Strategy Use and Vocabulary Knowledge. *Assessing the Relationship between Vocabulary Learning Strategy Use and Vocabulary Knowledge Feng*, *49*(June).