

# The Relationship between Vocabulary Learning Strategies and Vocabulary Breadth and Depth of Postgraduate Students of Mata ram University in Academic Year 2014/2015.

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## ABSTRACT

*Vocabulary is crucial to language learning in which lack vocabulary knowledge will make learner difficult to learn the language. Vocabulary knowledge is affected by the vocabulary learning strategies. The purposes of the present study were to investigate the relationship between learners' vocabulary learning strategies and learners' breadth and depth of vocabulary knowledge. Moreover this study also investigate the relationship between vocabulary breadth and vocabulary depth of postgraduate students in Mataram University. The most and least vocabulary strategy used by Mataram university postgraduate students were also investigated. The sample of this study was 40 postgraduate students of English department in FKIP Mataram University in academic year 2014/2015. Three instruments were utilized in this study; vocabulary learning strategies questionnaire, vocabulary level test and depth of vocabulary knowledge test. Pearson correlation analysis was used in this study to investigate the relationship between vocabulary breadth and vocabulary depth. The study showed that the vocabulary learning strategies used by postgraduate students were correlated with all the vocabulary level tests at the 0.05 level. Determination strategies, social strategies, memory strategies, cognitive strategies and metacognitive strategies were found correlated with the test score of 2.000 level, 3.000 level, 5.000, and academic word level. The correlation analysis between vocabulary learning strategies and vocabulary depth*

*showed that determination strategy was the only strategy that had correlation with Vocabulary depth (0.160). Meanwhile, strong and positive relationship between vocabulary depth and breadth was found in this study (0.795). Moreover, the most frequently used strategies by all participants belonged to memory strategies, while the social strategies were the least strategies used by postgraduate students.*

**Keywords:** Vocabulary learning strategies; Vocabulary Breadth; Vocabulary Depth

## 1. INTRODUCTION

English language is used as a means of communication by people from different countries. Moreover, English language is used as one of the major language in academic textbook. Lecturers in Indonesia especially in English language department teach postgraduate students with academic textbook written in English in order to help them broader their knowledge as well as to strengthen their English.

Knowledge of the words, as the building blocks of language is essential and has a really important role. In reality, it would be impossible for someone to understand language without understanding the meaning of the words. A large vocabulary is essential

for the mastery of a language (Krasen, 1989). Some of the postgraduate students is successful in decoding the main content or reading the text fluently, but understanding and knowing the meanings of words in a text is critical. Lewis (1993) stated that if language learners do not recognize the meanings of the key words used by those who address them, they will be unable to participate in the conversation, even if they know the morphology and syntax. Learners not only communicate in words but also thinking in words because words are the tools they use to think, to express ideas and feelings, as well as to explore and analyze the world around. It is clear that vocabulary plays a significant and crucial role in learning and understanding language. Insufficient vocabulary would lead learner to be passive and incapable learners in communication.

Vocabulary knowledge is affected by the vocabulary learning strategies, both the strategies achieved from the teacher or lecturer and the learning strategies students have done in their process of acquiring the language. Vocabulary learning strategies are important. Schmitt (1997) stated that learners' use of vocabulary learning strategies affects vocabulary acquisition. Gu (2005) and Nation (2007) emphasize that learners' vocabulary learning processes can determine overall success or failure of second language acquisition. Nation (2001) stated that it would be beneficial for teachers or language instructors to focus on learning activities explicitly which can help them teach 2000-3000 words. These learning activities can be used in both second language learning and foreign language learning especially when they restricted by time but good language proficiency is expected.

University students of English language department in Mataram have learnt new vocabulary especially English vocabulary with several strategies from experiences, books and strategies they learnt in the classroom. University students especially in postgraduate students of English language department have learnt English more often than other department or other faculty, therefore logically they should have high level of vocabulary knowledge. Moreover, according to Nation (2001), learners from Japan or Indonesia study English for about "five hours a week for about 40 weeks a year for about five years – very approximately 1.000 hours". The duration of university student spent to study English is enough to have more knowledge in vocabulary. Nation (2001) also stated that the size of 2,000 word words is quite a realistic target for EFL learners at the university level after 1.000 hours of study.

However, limited strategies being used and indirect method of teaching vocabulary may cause the problem regarding vocabulary. Moreover, from several EFL teaching experience, teaching English grammatical rules was more focus than vocabulary teaching in classroom. This is as result of the school syllabus and course book they used to learn English. The grammar translation method and specific grammar rules teaching played a prominent role in the English classroom in the past and it will continue in the future in English teaching class. English learners struggle to learn and memorize English grammatical rules. Lewis (1993) reported that the size of vocabulary and not grammatical knowledge is the most important factor that distinguishes high and low level language learners. Vocabulary learning is one of major problem for EFL students, because

there are too many new words to learn and they have poor memory to remember all the words they have already learnt. Aitchinson (1994) estimated vocabulary size of an adult native English speaker is 50.000 words. Around 5000 words suggested for readers to reach a minimum fluent level of English reading comprehension (Laufer, 1997, Nation & Waring, 1997). Hazenberg and Hulstijn (1996) suggested that one who learns English either as a second language or as a foreign language may need 10,000 base words for university studies. A study conducted by Read and Nurweni (1999) reported that students in Indonesia have vocabulary size between 1000 – 2000 size. This result of the study showed that the overall vocabulary abilities of Indonesian graduate is far from satisfactory. Since vocabulary is crucial for English foreign students to acquire language skills, what strategies they use to enhance their vocabulary and its correlation with their vocabulary knowledge is worth investigating.

Although several studies have been conducted about the vocabulary learning strategies however the study focus on identifying strategies that learners use to create taxonomies of vocabulary learning strategies (Gu & Johnson, 1996). Little attention has been given to what strategies learner use to acquire new vocabulary and what strategies learner used frequently to enhance their vocabulary. Moreover, not enough attention has been paid to vocabulary learning strategies as crucial aspect of communication and the effect of vocabulary learning strategies on learner's vocabulary knowledge especially in Mataram, Indonesia.

University students especially in postgraduate students of English language department have learnt English more often and longer than other department therefore

logically they should have high level of vocabulary knowledge. However, university students of English department in Indonesia especially in Mataram have low level of vocabulary knowledge. This was proved by the low score of postgraduate students achieved on their TOEFL score. Some English learners may be unaware of the many vocabulary learning strategies they might use in order to enhance their vocabulary knowledge. This study investigated their vocabulary learning strategies and the relationship between the strategies with their vocabulary knowledge. The result of this study can be used for the university students to choose the best of vocabulary learning strategies as well as to raise learners' awareness of vocabulary learning strategies and introduce more effective strategies to facilitate their vocabulary learning.

This research focused on investigate the relationship between vocabulary learning strategies on two dimensions of vocabulary knowledge namely vocabulary breadth and vocabulary depth. Moreover, this study investigated the most frequent strategies used by the postgraduate students. The degree of relationship between these two aspects of vocabulary knowledge, namely depth and breadth as dependent variables in this study were also investigated.

## **2.1 LITERATURE REVIEW**

### **2.1 Vocabulary Learning Strategies**

Vocabulary learning strategies are a part of language learning strategies which in turn are a part of general learning strategies (Nation 2001:217). Therefore, the definition of vocabulary learning strategy stems from that for language learning strategies (Catalan 2003:55). Cameron (2001:92) defines vocabulary learning strategies as “the actions

that learners take to help themselves understand and remember vocabulary items”. Catalan (2003:56) adopts the definition of vocabulary learning strategies from Rubin (1987); Wenden (1987); Oxford (1990); and Schmitt (1997) as the working definition in her study as “knowledge about the mechanisms (processes, strategies) used in order to learn vocabulary as well as steps or actions taken by students (a) to find out the meaning of unknown words, (b) to retain them in long-term memory, (c) to recall them at will, and (d) to use them in oral or written mode”. Similarly, Intaraprasert (2004:9) has defined vocabulary learning strategies as “any set of techniques or learning behaviours, which language learners reported using in order to discover the meaning of a new word, to retain the knowledge of newly-learned words, and to expand their knowledge of vocabulary.”

## 2.2 Schmitt’s Classification of Vocabulary Learning Strategies

Schmitt (1977:207-208) has developed a taxonomy of vocabulary learning strategies based on an extensive language learning strategies’ taxonomy organized by Oxford’s (1990:17-21), including Memory, Cognitive, Compensation, Metacognitive, Affective, and Social categories. Schmitt (1997) made use of a vocabulary learning strategy questionnaire in his study in order to survey strategy language learners’ reported employing, and how useful they rated each strategy. He organized 58 categories into five types. According to this classification, strategies are classified as determination, social, memory, cognitive, and metacognitive. The list of strategies is divided into two major classes: 1) strategies that are useful for the initial discover of a word’s meaning, and 2) those useful for consolidating a word once it has been encountered. Based on

strategies for discovering meaning, bilingual dictionaries, asking teacher for paraphrase/synonym, and analyzing pictures or gestures were the strong preferences. In terms of strategies for consolidating meaning, say new word aloud, written repetition, connect word with synonyms/antonyms, continue overtime, study spelling, take notes in class, and verbal repetition were preferred. The least helpful strategy of discover meaning is to skip or pass new word. The least helpful strategies of consolidate meaning consisted of image word’s meaning, use cognates in study, keyword method, and image word form.

## 2.3 Vocabulary Breadth

Vocabulary breadth or size of vocabulary knowledge, which is defined as the number of words for which the person knows at least some the significant aspects of meaning (Anderson and Freebody, 1981: 92-93). Studies regarding the vocabulary size of university students have been conducted by scholars. According to Nation (2001), learners from Japan or Indonesia study English for about “five hours a week for about 40 weeks a year for about five years – very approximately 1.000 hours”. Based on Barnard’s and Quinn’s study, after these learning hours, Indian and Indonesian learners tended to have a vocabulary size of less than 2.000 words (Huang, 2005). Laufer in Nation (2001) found that the learners’ receptive vocabulary size was 1.900 words while the productive vocabulary was 1,700 words, although it became 3,500 words (receptive) and 2,550 words (productive) at the end of the following year. Barrow, Nakanishi and Ishino in Huang (2005) discovered that the vocabulary breadth of Japanese college freshmen (N = 1283) was 2,304 words. Huang claimed that the 246 Taiwanese university juniors who had learned EFL for at least 7 years had the vocabulary

size of 2,838 words (Huang, 2005). Nurweni and Read (1999) conducted study in which 324 first-year students of Lampung University in Indonesia could only recognize 1226 words.

## 2.4 Vocabulary Depth

Vocabulary depth was defined as how well a learner knows a word and it was related to the quality of words rather than quantity of words. Richard (1976) and Nation (1990) claimed that the ability to master the various lexical knowledge of given words equates to one's vocabulary knowledge. According to Qian (2002) and Kaivanpanah & Zandi (2009) measuring vocabulary size alone was insufficient the depth domain of words should be involved. Furthermore, Mezynski (1983) claimed that if all the words which students learned were semantically unrelated, they may not understand the deeper meaning of words and it would be difficult for them to link their word knowledge to other knowledge. For knowledge to be effectively applied, knowing the meaning of a word should include knowing how to relate it to other words. Read was the pioneer who designed an instrument to measure learner's vocabulary depth in terms of a format of word associations.

## 3. RESEARCH METHOD

### 3.1 Participants

The participants in this study were postgraduate students of Mataram University in academic year 2014/2015. There are 40 students participate in this study. Their age ranged from 25 to 45. The participants in this study are postgraduate students of English language department. Therefore, all of the participants are the same in terms of educational language background.

### 3.2. Data Collection Instruments

#### 3.2.1 Vocabulary Learning Strategies Questionnaire (VLSQ)

This questionnaire was chosen to investigate the frequency of vocabulary learning strategies (VLS) postgraduate use. It consists of 40 items related to VLS. The main aim of using the vocabulary learning strategies questionnaire is to draw out type of vocabulary learning strategies used frequently by postgraduate students. This study used Schmitt's (1997) taxonomy of vocabulary learning strategies as base classification. Schmitt's (1997) taxonomy of the vocabulary learning strategies not only provides a comprehensive classification of vocabulary learning strategies, but also is employed in numerous studies for EFL learners. The questionnaire is divided into two parts. The content of first part is participants' personal background information. The second part was 40 items vocabulary learning strategies, which were further divided into five subcategories: Determination Strategies (DET), Social Strategies (SOC), Memory Strategies (MEM), Cognitive Strategies (COG), and Metacognitive Strategies (MET). The questionnaire used a 4-point rating scale, the scale is valued as 1, 2, 3, or 4. The meaning of each value; 1 = seldom, 2 = Sometimes, 3 = Often and 4 = Always or almost always.

#### 3.2.2 Vocabulary Level Test (VLT)

The Vocabulary levels test is a diagnostic vocabulary test for non-native speakers (Nation, 1983; 1990). There are two kinds of test in Vocabulary Level Test, Productive test and Receptive Test. In the present study only the receptive test of vocabulary level test was used. Vocabulary Levels Test categorizes the knowledge based on the word frequency: 2,000 word level, 3,000 word level, 5,000 word level, the University Level (beyond 5000 words) and

10,000 word level. It also includes academic English words for learners in academic context. Each level is intended to relate to specific vocabulary learning objectives. In each level, there are 6 clusters with 3 items each. Therefore, there are 18 items for each section, making the total of 90 items for the whole test. In this study, the test was limited to University Level. Therefore, the total number of question items is 72 items. The participants are supposed to match the definitions on the right in each cluster with the corresponding words on the left. The items are not contextualized so that the participant have no clues to the meaning of the word.

### **3.2.3 Depth of Vocabulary Knowledge (DVK) Test**

The DVK test is a measure of vocabulary depth. The test was developed jointly by a team of TOEFL test developers at the Educational Testing Service and is based on the Word Associates Test (Read, 1998, 2000). The test is able to measure two aspects of depth of vocabulary knowledge: 1) word meaning, particularly synonymy and polysemy, and 2) word collocation. The DVK test contains 40 items. Each item comprises one stimulus word which is an adjective and there are two boxes, each containing four words. Each item has four correct choices, and the choices are not always evenly spread where sometimes there are more correct options for word meanings than word collocation and vice versa. The arrangement of correct answer had three combinations, it can be three in the left-hand column and one in right-hand column, two left-hand column and two right-hand column, and one left-hand column and two right-hand column. In scoring, each word that is correctly chosen would be awarded with one point, with a

maximum possible score therefore 160 for 40 items.

## **4. DATA ANALYSIS PROCEDURE**

Pearson correlation analysis was used in this study to investigate the relationship of independent variables on dependent variables. The SPSS (Statistical Package for Social Sciences) was used to conduct the analysis of the data. In the correlation analysis, the scores on the vocabulary level test (VLT) and depth of vocabulary knowledge (DVK) were used as the dependent variable and those of vocabulary learning strategies which consist of five strategies as independent variables.

Therefore, this research used quantitative approach which used numerical type data. Several steps were taken to collect the data in this study. Before administering the tests, participants' data would be taken in order to anticipate any mistake for data input. Such data are their personal data which are relevant for the current study and attendance list. Personal data are taken only once at the test. Administering the tests would be the next step in collecting the data. Specific instructions before each test were given to avoid technical mistake. The students were told that the result of the tests would not affected their grade, included in their academic report. Any act of cheating was not permitted to guarantee that the tests were done as honestly as possible. They were forbidden to use electronic tools such as smartphone, electronic dictionary, laptop or notebook, etc. Pearson correlation analysis was used in this study to investigate the relationship between variables.

## **5. RESEARCH RESULT**

The first research question asking if there is a relationship between the vocabulary learning strategies used by postgraduate

students and their vocabulary breadth test scores. In order to answer the question, the Pearson Correlation Coefficient analysis was implemented. Their correlation coefficient were calculated at .05 level of significance. The results obtained from these computations are presented in the following table of correlations.

**Table 5.1** Correlation between Vocabulary Learning Strategy and Vocabulary breadth (Size).

Strategies	Vocabulary level Test			
	2000	3000	5000	Academic
Determination	.433	.043	.210	.477
Social	.160	.107	.039	.044
Memory	.366	.168	.480	.340
Cognitive	.314	.337	.022	.289
Metacognitive	.129	.313	.129	.170

\*. Correlation is significant at the 0.05 level

As displayed in Table 5.1, the results of the calculation indicated an initial evidence of a positive relationship between the two variables. The vocabulary learning strategies used by post graduate students were correlated with all the vocabulary level tests at the 0.05 level. This positive correlation analysis showed a reliable prediction that students with high vocabulary size used the vocabulary learning strategies more efficiently. Determination strategies were correlated with the test score of 2,000 ( $r=.433$ ) and Academic word levels ( $r=.477$ ) and moderately correlated with the test score of 3,000 word level ( $r=.043$ ). The social strategies were found to moderately correlated with the test scores of 2,000 ( $r=.160$ ) and Academic word level ( $r=.044$ ). Memory strategies were moderately correlated with the test score of, 2,000 ( $r=.366$ ), 3000 ( $r=.168$ ), 5000 ( $r=.480$ )

and Academic word level ( $r=.340$ ). The cognitive strategies were found correlated with the test score of 2,000 ( $r=.314$ ) and 5,000 ( $r=.337$ ) and were found correlated with Academic word levels ( $r=.289$ ). The metacognitive strategies were found correlated with the test score of 2,000 ( $r=.129$ ) and 5,000 ( $r=.313$ ) and were found correlated with Academic word levels ( $r=.170$ ).

The second research question asking if there is a relationship between the vocabulary learning strategies used by postgraduate students and their vocabulary depth test scores. The relationship was measure statistically using SPSS with Pearson correlation. The following table showed the result of the analysis.

**Table 5.2** Correlation between Vocabulary Learning Strategy Use and Vocabulary Depth

Strategies		Vocabulary Depth
DETERMINATION	Pearson Correlation	.160
	Sig. (2-tailed)	.398
SOCIAL	Pearson Correlation	-.443
	Sig. (2-tailed)	.014
MEMORY	Pearson Correlation	-.194
	Sig. (2-tailed)	.304
COGNITIVE	Pearson Correlation	-.412
	Sig. (2-tailed)	.024
METACOGNITIVE	Pearson Correlation	-.266
	Sig. (2-tailed)	.155

As Table 5.2 showed, determination strategy was the only strategy that had correlation with Vocabulary depth (0.160) and it's a weak relationship. While the other strategies (social (-.443), memory (-.194), cognitive (-.412), and metacognitive (-.266) strategies) were negatively correlated with dependent variables.

**Table 5.3** Correlation between Vocabulary Breadth and Vocabulary Depth

		VOCABULARY DEPTH	VOCABULARY BREADTH
VOCABULARY DEPTH	Pearson Correlation	1	.795**
	Sig. (2-tailed)		.000
VOCABULARY BREADTH	Pearson Correlation	.795**	1
	Sig. (2-tailed)	.000	
	N	40	40

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

The relationship between two dependent variables (Vocabulary breadth and vocabulary depth) was examined with Pearson Correlation, there was correlation between Vocabulary breadth and vocabulary depth

( $r=0.000$ ,  $p<0.05$ ). The table showed statistically significant positive and very strong correlation between vocabulary breadth and vocabulary depth showed in the table (0.796), it means that learners who had a large vocabulary size had a deeper knowledge of the words as well.

To the research question, what vocabulary learning strategies were employed by postgraduate students in learning English vocabulary, it was found that the research subjects used the vocabulary learning strategies in all five categories. The descriptive statistics related to the students' use of vocabulary learning strategies reported in the vocabulary learning strategy questionnaire was summarized in the Table 5.4 below.

**Table 5.4** Mean Score of Vocabulary Learning Strategies

	Minimum	Maximum	Mean	Std. Deviation
DETERMINATION	14.00	26.00	19.4333	2.86095
SOCIAL	6.00	17.00	11.0000	2.71649
MEMORY	25.00	51.00	37.8000	6.02523
COGNITIVE	8.00	23.00	15.2333	3.82986
METACOGNITIVE	10.00	17.00	13.2667	2.31834

According to Table 5.4, the memory strategies (37.80) were the most frequently strategies by all subjects. Meanwhile determination strategies (mean=19.43) were determined as the second frequently used strategies followed by cognitive (mean=15.23), metacognitive (mean=13,26). The social strategies were determined as the least used strategies by all students with mean score of 11.00. In specific, the most and the least strategy of vocabulary learning of postgraduate students can be seen in the following table based on each category. The table showed the most and least strategy used by regarding at means score.

## 6. CONCLUSION

The vocabulary learning strategies used by postgraduate students were correlated with all the vocabulary level tests at the 0.05 level. The analysis of correlation between vocabulary learning strategies and vocabulary depth showed that determination strategy was the only strategy that had positive correlation with Vocabulary depth (0.160) and it's a weak relationship. While the other strategies (social, memory, cognitive, and metacognitive strategies and overall strategy use) were negatively correlated with dependent variables. The relationship between



vocabulary depth and breadth, the scores on the vocabulary depth test and vocabulary breadth test showed strong and positively correlated, which assured that the two dimensions was indeed interconnected. The Pearson correlation showed statistically significant positive and strong correlation between vocabulary breadth and vocabulary depth showed in the research result (0.795). The most frequently used strategies by all subjects belonged to memory strategies, while the social strategies were used the lowest level by all students.

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