

**THE USE OF VOCABULARY LEARNING STRATEGIES AND
STUDENTS' VOCABULARY SIZE BY THE FIRST YEAR STUDENTS OF
SENIOR HIGH SCHOOL IN BANDAR LAMPUNG**

(A Script)

By

Ryan Puby Sumarta



**ENGLISH EDUCATION STUDY PROGRAM
LANGUAGE AND ARTS EDUCATION DEPARTMENT
TEACHER TRAINING AND EDUCATION FACULTY
UNIVERSITY OF LAMPUNG**

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ABSTRACT

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Ryan Puby Sumarta

Vocabulary is an important aspect of language proficiency and provides much of the basis for how well students listen, speak, read, and write. Vocabulary can be improved by the help of vocabulary learning strategies. In acquiring vocabulary, different learners may employ different strategies that may affect their vocabulary size.

The research is aimed to find out whether there is a statistically significant difference in the students' vocabulary size according to their vocabulary learning strategies. Ex-post facto design was used in this research. The subjects were 135 tenth grade students of four senior high schools in Bandar Lampung. The data were analyzed by using one way anova in SPSS (Statistical Program for Social Science).

The result showed that there was no statistically significant difference in the students' vocabulary size according to their vocabulary learning strategies particularly their vocabulary size for the first three levels. However, the students who often employed cognitive strategy had a statistically significant difference in University Word List (UWL) vocabulary size level from those who often employed the other four vocabulary learning strategies: determination, social, metacognitive and memory strategies. This indicates that the use of vocabulary learning strategies partly resulted in the students' vocabulary size particularly UWL level.

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A Script

Submitted in a Partial Fulfillment of

The Requirement for S-1 Degree

in

The Language and Arts Department of

Teacher Training and Education Faculty



**ENGLISH EDUCATION STUDY PROGRAM
LANGUAGE AND ARTS EDUCATION DEPARTMENT
TEACHER TRAINING AND EDUCATION FACULTY
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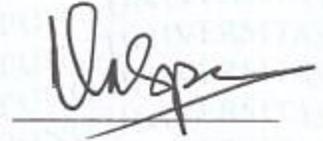
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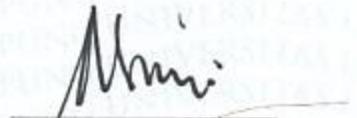
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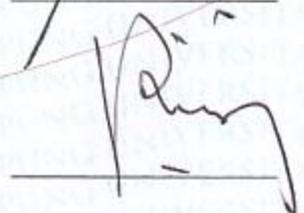
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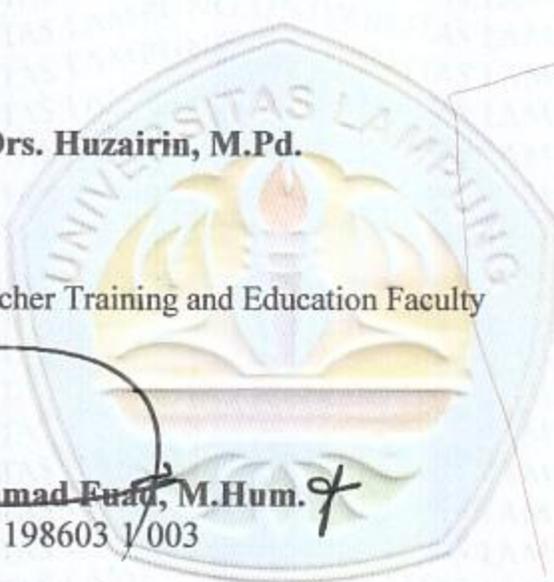


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CURRICULUM VITAE

The writer's name is Ryan Puby Sumarta. He was born in Bandar Lampung on July 23rd, 1994. He is the second child of three children from the parents I Kadek Sumarta, S.Sos., M.M. and Ni Wayan Marwati. He has one sister and one brother namely dr. Dyah Gaby Kesuma and K. Haris Chandra Sumarta.

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DEDICATION

This paper is proudly dedicated to:

My Beloved Parents

Kadek Sumarta and Wayan Marwati

My Beloved Sister and Brother

Dyah Gaby Kesuma and Haris Chandra Sumarta

My Almamater, University of Lampung

MOTTO

Do it now. Sometimes “later” becomes “never”.

“Anonymous”

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Praise is merely to the Almighty God for the gracious mercy and tremendous blessing that enables the writer to accomplish this bachelor thesis entitled: “The Use of Vocabulary Learning Strategies and Students’ Vocabulary Size by the First Year Students of Senior High School in Bandar Lampung” is submitted as a compulsory fulfillment of the requirement for S-1 Degree at the Language and Arts Education Department of Teacher Training and Education Faculty of University of Lampung.

Gratitude and honor are addressed to all persons who have helped and supported the writer until the completion of this research. Since it is necessary to be known that this research will never have come into its existence without any supports, encouragements and assistances by several outstanding people. Therefore, in this occasion, the researcher would like to express his sincere gratitude and deep respect to Mahpul, M.A., Ph.D., the first advisor who has contributed and given his invaluable evaluations, comments, and suggestions during the completion of this bachelor thesis. His appreciation is also due to the second advisor Drs. Huzairin, M.Pd., who has given his assistance, ideas, guidance and carefulness in correcting the writer’s bachelor thesis. The researcher also would like to express his deep gratitude to his inspiring examiner, Dr. Ari Nurweni, M.A., who has

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Finally, the writer believes that his writing is still far for perfection. There may be weaknesses in this research. Thus, comments and suggestions are needed to make this research better. Somehow, the writer hopes this research can give a positive contribution to the educational development, the readers and those who wish to accomplish further research.

Bandar Lampung, September 2016

The writer,

Ryan Puby Sumarta

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I. INTRODUCTION

This chapter is concerned with about the introduction of the research which deals with several points i.e., background, research questions, objectives, uses, scope, and definition of terms.

1.1. Background

To achieve communicative competence in English, learners need to pay attention to many aspects of language, one of which is vocabulary. Vocabulary is one of language aspects that learners need to acquire. According to Rivers (1970:462), it would be impossible to learn a language without vocabulary when students start to study a language and before they learn further about the four skills i.e. listening, speaking, reading, and writing; the first aspect that they need to learn is vocabulary. This suggests that vocabulary is the important aspect that students need to master in order that they are able to communicate well.

On the other hand, most of students' vocabulary size is regarded as being low. Ichwan (2016) in his research states that the first grade students' vocabulary size of SMAN 15 Bandar Lampung is below standard. The findings showed the mean score of vocabulary 2000 wordlist was 71.64%. According to curriculum 1994, senior high school students are expected to master 2500 words. Thus, it is important to find such a way that the students are facilitated in learning vocabulary so that their vocabulary size mostly significantly improves.

Vocabulary learning strategies are one of excellent approaches to extend the word range of learners. According to Nation (2001), a large and rich vocabulary can be acquired with the help of vocabulary learning strategies. In addition, Nation (2001) states that vocabulary learning strategies permit learners to take more control of their own vocabulary learning. Furthermore, Gu and Johnson (1996) in Nirattisai and Chiramanee (2014) indicate that successful vocabulary learners tend to employ vocabulary learning strategies more often than less successful ones.

Some researchers have developed numerous classifications for vocabulary learning strategies (Oxford, 1990; Schmitt, 1997; Nation, 2001). These classifications have contributed substantially to the field L2 vocabulary acquisition. Schmitt (1997) developed a comprehensive inventory of vocabulary learning strategies. He divided the strategy into two groups, namely discovery strategies and consolidation strategies. Discovery strategies consist of determination and social strategies while consolidation strategies consist of social, memory, cognitive and metacognitive strategies.

Moreover, a number of significant research studies have investigated how learners use vocabulary learning strategies. Some of them have attempted to determine which strategies learners use and which strategies they consider useful. Others have focused on the relationships between strategy use and success in language learning to various measures.

A study conducted by Amelia (2015) was aimed to find out whether there was any significant difference of vocabulary learning strategy preferences between males and females of the second grade students at SMA Negeri 1 Bandar Lampung and to investigate the most and least frequently used of

vocabulary learning strategies by the students. The result showed that there was no significant difference of vocabulary learning strategy preferences between males and females of the second grade students at SMA Negeri 1 Bandar Lampung. It also revealed that the most frequently used strategy was social strategies and the least frequently used strategy was metacognitive strategies. This study was not agreement with ener's study (2009) in Kalajahi and Pourshahian (2012) which investigated the relationship between VLS and vocabulary size of Turkish EFL students. ener found that Turkish students used more metacognitive strategies efficiently than psycholinguistic strategies. In addition, the study revealed that there was a positive correlation between VLS and vocabulary size of students.

Based on the studies above, each student has different strategy to comprehend the knowledge and information that he or she gets. The strategy which works for one student might not work for some others. In acquiring vocabulary, different learners may employ different strategies that may affect their vocabulary size. The researcher is interested in finding the difference of the students' vocabulary size according to their vocabulary learning strategy.

1.2. Research Questions

Based on the background above, the problems were formulated as follows:

1. Does the students' different use of vocabulary learning strategy differ in their vocabulary size?
2. Does the students' different use of vocabulary learning strategy differ in their vocabulary size for each level?

1.3. Objectives

By relating to the research questions, the objectives of the research were:

1. To find out the difference of the students' vocabulary size according to their vocabulary learning strategy.
2. To find out the difference of the students' vocabulary size for each level according to their vocabulary learning strategy.

1.4. Uses

In relation to the problem and objective, the finding of the research may be beneficial not only theoretically but also practically. Therefore, these uses could be described as follows:

1. Theoretically, the result of this research is expected to be useful reference for the next researcher and to strengthen the previous theory.
2. Practically, the result of this research is expected to be useful information for English teacher to increase his or her awareness concerning with his or her teaching strategy, to be beneficial guidance to the students to improve their vocabulary mastery by using the appropriate strategy, and to be an information for other researcher who is interested in the research related to this topic.

1.5 Scope

This research was aimed to find out the difference of the students' vocabulary size according to their vocabulary learning strategy and to find out the difference of the students' vocabulary size for each level according to their vocabulary learning strategy. The tenth grade students of SMA Fransiskus, SMA N 5, SMA N 15, and

SMA N 13 Bandar Lampung in 2015/2016 academic year were chosen as the participants of this study. One class in each school was taken by the researcher. The vocabulary learning strategies (VLS) questionnaire which is designed based on Schmitt's taxonomy of L2 vocabulary learning (1997) was used in this present study. Word-definition matching format (WDMF) vocabulary test by Sutarsyah (2006) was tested by the researcher.

1.6. Definition of Terms

There were some terms in this study that should be clarified, as follows:

Vocabulary is a set of lexemes including single words, compound words, and idioms that can be arranged for making up the language.

Vocabulary learning strategies (VLS) is any set of techniques; including actions or mental processes that the learners use in order to facilitate their English vocabulary learning with the purpose of improving their vocabulary knowledge.

Vocabulary size is a number of words that a person knows.

II. LITERATURE REVIEW

This chapter is concerned with several points related to the theories used in this study, such as concept of vocabulary, concept of vocabulary size, measuring vocabulary, concept of learning strategies, concept of vocabulary learning strategies, role of vocabulary learning strategy and review of previous research.

2.1. Concept of Vocabulary

Vocabulary is a set of lexemes (the smallest unit in the meaning system of a language that can be distinguished from other similar units), including single words, compound words, and idioms (Richards and Schmidt, 2002:580). Learning vocabulary is an important part of studying a second language. Folse (2010) says that vocabulary is an essential component of all comprehension in the teaching and learning of a second language (L2) or a foreign language. That statement is supported by Nation (2009) who points out that vocabulary plays an important role in the language learning process because it is one of the important language elements that can support all of the four skills.

The learner's vocabulary knowledge always grows along with learner's learning. Having a lot of vocabularies makes it easy for the students to comprehend the language skills. Knowing a word is not only learning about the word itself but knowing a word can be more complex. According to Harmer (1991: 158) knowing a word (vocabulary) means knowing about meaning, word use, word formation, and word grammar. To be more specific here are the explanations of

each aspect of knowing the word:

1. Knowing the meaning

Knowing the meaning about the word means knowing meaning in sense relation. For instance the word “hiss” means to insult someone but it also refers to a noise made by a snake. Word meaning is also influenced by metaphors and idioms. For instance idioms keep in touch it means stay having a connection.

2. Knowing the word use

Knowing the word use is about knowing the language whether to be used by someone in a formal or informal context, for example “hello” (formal) and “hi” (informal).

3. Knowing the word formation

Knowing the word formation means knowing the grammatical contexts. It means that we look at how the suffixes and the prefixes work (im or in) such as imperfect and perfect, inappropriate and appropriate.

4. Knowing the word grammar

Knowing the word grammar means knowing the use of words based on the use of certain grammatical patterns such as noun, verb, adjective, adverb, etc. For example:

<u>I</u>	<u>went</u>	<u>to market</u>	<u>yesterday.</u>
N	Verb	Adv.	Adv.

Below, the explanations of grammatical patterns from the sentence above are:

1. Nouns

A noun is a word that identifies a person (*woman, boy, doctor, neighbour*), a thing (*dog, building, tree, country*) and an idea, quality, or state (*truth, danger, birth, happiness*). Nouns can be divided into sub classes. There are proper nouns (*Steven, London, Monday*) and

common nouns (*boy, country, day*). There are also countable nouns (*cats, counties, women*), uncountable nouns (*sugar, rain, flour*), abstract nouns (*truth, danger, friendship*), concrete nouns (*dog, building, tree*) and collective nouns (*audience, family, team*).

2. Verbs

A verb describes what a person or thing does or what happens. For example, verbs describe an action (*run, hit, travel*), an event (*rain, occur*), a situation (*be, seem, have*) and a change (*become, grow, develop*).

3. Adjectives

An adjective is a word that describes a noun, giving extra information about it, for example *a sweet taste, a red apple, a technical problem* and *an Italian woman*. Some types of adjectives are:

- Determiners: They are articles (*the, a, an*), demonstrative adjectives (*this, that, these, those*), possessive adjectives (*him, them, our*), numeral adjectives (*one, two, three*) and indefinite quantity adjectives (*little, many, much*).
- Descriptive adjectives: They usually indicate an inherent quality (*good, bad, young*), or physical state (*purple, black, yellow*), size or age.

4. Adverbs

An adverb is a word that is used to give information about a verb, adjective, or other adverb:

- they sang **loudly**
- she is **very** pretty
- he writes **really** well

The types of adverbs are explained below:

- Adverb of manner – *lazily, slowly, easily*

- Adverb of place – *here, abroad, upstairs*
- Adverb of time and frequency – *yesterday, soon, still, daily*
- Adverb of degree – *almost, really, slightly, very, nearly.*

Learning vocabulary is not just about learning the word. This statement is in agreement with Cameron (2001) in Amelia (2015) who states that vocabulary is not as simply as learning words only, but in fact it is much more than that.

There are some types of vocabulary. Nation (2001) says that there are two kinds of vocabulary based on the vocabulary knowledge; they are receptive vocabulary and productive vocabulary. The types of vocabulary will be discussed below.

1. Receptive Vocabulary

Receptive vocabulary is learners' words that are generally understood when heard or read or seen constitute a person's receptive vocabulary. Receptive vocabulary is used passively in either listening or reading. There are two units of receptive vocabulary as follow:

a. Listening vocabulary

Listening vocabulary is every word that can be recognized when listening to speech. People may still understand words they are not exposed to before using clues such as tone, gesture, the topic of the discussion, and the social context of the conversation.

b. Reading vocabulary

Reading vocabulary is every word that people can recognize when reading. This is generally the largest types of vocabulary simply because reader tends to be exposed to more words by reading than by listening.

2. Productive vocabulary

Productive vocabulary refers to words which can be produced within an appropriate context and match the intended meaning of the speaker or signer. Productive vocabulary is used actively either in speaking or writing. There are two units of productive vocabulary as follow:

a. Speaking vocabulary

Speaking vocabulary is every word that is used by people in speech. It is likely to be a subset of the listening vocabulary. Due to the spontaneous nature of speech, words are often misused. This misused may be compensated by facial expressions, tone of voice, or hand gesture.

b. Writing vocabulary

Writing vocabulary is every word that is used in numerous forms of writing from formal essays to twitter feeds. Many written words do not commonly appear in speech.

In summary, vocabulary is one of basic term to understand every language skills in English. It is a set of lexemes including single words, compound words, and idioms that can be arranged for making up the language. Vocabulary can be an indicator of the success in context of learning foreign language. When learner learns the vocabulary, they will learn about the word meaning, the use of word, word formation, and word grammar in the appropriate context. There are two kinds of vocabulary; they are receptive vocabulary and productive vocabulary. Receptive vocabulary is words that recognized when the meaning of the target words are given, while productive vocabulary refers to the number of words that can be memorized them by seeing the context.

2.2. Concept of Vocabulary Size

According to Anderson and Freebody (1981), vocabulary size is the number of words for which the person knows at least some the significant aspects of meaning. It means that vocabulary size of the learner can be measured statistically. There are some ways to measure it namely *token*, *type*, *lemma*, and *word family*. *Token* refers to any running words that occur in a written or spoken text, *type* treats repeated tokens as one word, *lemma* includes a headword and its inflected or reduced forms, and *word family* consists of a headword, its inflected forms, and its closely related derived forms. Nation (2001) states that the best way to measure their vocabulary breadth is based on how many words appear in the textbooks. Briefly, vocabulary size is the breadth of vocabulary knowledge. It can simply be regarded as the number of words that a person knows.

2.2.1. Word Frequency and Text Coverage

Word frequency refers to how often the word occurs in normal use and text of the language. Nation (2001) suggests there are four types of word frequency; they are high-frequency words, specialized vocabulary (academic words), technical vocabulary and low-frequency words. High frequency words are the most frequent 2000 words of English and it typically covers around 80% of the running words of academic texts and newspapers, and around 90% of conversation and novels. For learners with academic goals, the 570 word families in academic word list (Coxhead, 2000) is like a specialised extension of the high frequency words. It covers on average 8.5% of academic text, 4% of newspapers and less than 2% of the running words of novels. Technical words covered about 5% of the running words in specialised texts. It is largely of interest and use to people working in a

specialised field. Low vocabulary words typically covered around 5% of the running words in texts.

As a general principle, Nation and Waring (1997) indicate that 2,000 and 3,000 word level is enough for productive use in speaking and writing. Here are some figures showing what proportion of a text is covered by certain number of frequency words in the Brown corpus. They also state that a small number of the words of English occur very frequently and if a learner knows these words, that learner will know a very large proportion of the running words in a written or spoken text. Most of these words are content words and knowing enough of them allows a good degree of comprehension of a text.

Table 2.1. Vocabulary Size and Text Coverage

Vocabulary Size Level	Text coverage
1000	72.0%
2000	79.7%
3000	84.0%
4000	86.8%
5000	88.7%
6000	89.9%
15.851	97.8%

(Nation and Waring, 1997)

Based on the table above, high frequency words are known before lower frequency words. It shows that knowing about 2000 word families gives near by 80% coverage of written text. Thus, mastering 2000 words, a learner knows 80% of the words in the text.

2.3. Measuring Vocabulary

Measuring vocabulary usually means testing how big a learner's vocabulary size is and how well he or she knows a word (Shahov, 2012). It is important for

planning, diagnosis and research. Without knowing where learners are now in their vocabulary growth, it is not easy to plan a sensible vocabulary development program.

The main purpose of vocabulary tests is to measure the comprehension and production of words in speaking and writing (Madsen, 1983). Specifically, a vocabulary test is usually divided into two types, breadth and depth of knowledge. Freebody (1981) in Read (1993) defined breadth of knowledge as the size of a learners' vocabulary (how many words are known), whereas depth involves a consideration of the quality of learners' vocabulary knowledge (how well are particular words known). A test on breadth of vocabulary involves a lot of words to be covered in the test and it requires a short response in relation to each word being tested (Read, 1993). If it focuses on the depth of vocabulary knowledge, very few words can be included because it usually deals with the testing of words in context and usage and the use of words in different situations.

In this research, the researcher wants to test the breadth of students' vocabulary because the researcher just wants to know the students' vocabulary size. Then, the researcher will investigate the difference of the students' vocabulary size according to their vocabulary learning strategy. Furthermore, the instrument of vocabulary size test provided by Sutarsyah (2006) just covers the breadth of vocabulary because it focuses on the meaning of word.

2.4. Concept of Learning Strategies

The word strategy comes from the ancient Greek word "strategia" which means steps or actions taken for the purpose of winning a war. The warlike meaning of strategia has fortunately fallen away, but the control and goal-directedness remain

in the modern version of the word (Oxford, 1990). She also defines that language learning strategies are specific actions, behaviours, steps, or techniques that students use to improve their progress in developing second language skills. Whereas, Ellis (1985) defines learning strategies as how learners accumulate new second language rules and how they automate existing ones. This process can be conscious or subconscious. He further explains it as the mental processes of acquiring and using the second language (Ellis 1985:299-300). They are the techniques, approaches, methods, or intentional actions learners take to fully acquire the target language. Based on the explanations above, it can be asserted that learning strategies are some actions that are taken in the process of learning a language to improve the headway.

2.5. Concept of Vocabulary Learning Strategies

Vocabulary learning strategies create a subcategory in the framework of language learning strategies. In term of vocabulary learning, Nation (2001) makes clear that vocabulary learning strategies are one part of language learning strategies which in turn are part of general learning strategies. Moreover, Catalán (2003) says that vocabulary learning strategy is knowledge about the mechanisms (processes, strategies) used in order to learn vocabulary as well as steps or actions taken by students. Based on the statements above vocabulary learning strategy is one part of language learning strategies that consists of the learner's actions or mental processes in order to facilitate their English vocabulary learning with the purpose of enhancing their vocabulary knowledge. However, a greater knowledge of vocabulary learning strategies could be very useful in supporting teachers to plan their lessons more effectively and give guidance to students in adopting successful strategies.

Concerning to vocabulary learning strategies, Schmitt (1997) develops a comprehensive inventory of vocabulary learning strategies. He divides the strategy into two groups namely discovery strategies and consolidation strategies. Schmitt (1997) defines each strategy as follows:

1. Discovery dimension:

- Determination strategies (DET): used by an individual when facing with discovering a new word's meaning without recourse to another person's expertise.
- Social Strategies (SOC): use interaction with other people to improve language learning.

2. Consolidation dimension:

- Social Strategies (SOC): have group work to learn or practice vocabulary.
- Memory Strategies (MEM): relate new material to existing knowledge.
- Cognitive Strategies (COG): exhibit the common function of manipulation or transformation of the target language by the learner.
- Metacognitive Strategies (MET): involve a conscious overview of the learning process and making decisions about planning, monitoring, or evaluating the best ways to study.

2.6. Role of Vocabulary Learning Strategies in Learning Vocabulary

Oxford (1990) defines language learning strategies as specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations. In addition, Nation (2001) makes clear that vocabulary learning strategies is one part of language learning

strategies which in turn are part of general learning strategies. Based on the statements above, it is clear that vocabulary learning strategy has important role in vocabulary learning because vocabulary learning strategy is helpful in learning vocabulary.

Despite its importance in vocabulary learning, Gu (2012) states that strategy is not a static concept, but it is a dynamic process with problem-solving as its central aim. The ideal strategy involves at least the following procedures; noticing and selectively attending to learning problems, analyzing the self, the task, and the situation, making decisions and plans, executing plans, monitoring, and evaluating the effectiveness of the whole process. So, someone's strategy can be changed with other strategy if it does not improve his or her skills.

On the other hand, Schmitt (1997) found that less experienced learner tend to use less learning strategy than the experienced learner. The experienced learner has more awareness in using vocabulary learning strategy. In summary, vocabulary learning strategies facilitate learners in learning vocabulary so that they can achieve their aims in learning vocabulary.

2.7. Review of Previous Research

There have been several correlation studies dealing with vocabulary learning strategies and vocabulary size. One of them was conducted by Amelia (2015). The research instruments in collecting the data were questionnaire based on Schmitt's (1997) study and vocabulary size test in Sutarsyah (2006). Although she did not investigate the difference of the students' vocabulary size according to their vocabulary learning strategy, her finding reveals that there is no significant

difference in the students' vocabulary size according to their vocabulary learning strategy.

From the finding above, the researcher is interested to find out the difference of the students' vocabulary size according to their vocabulary learning strategy. He is also attracted to find out the difference of the levels of the students' vocabulary size according to their vocabulary learning strategy.

2.8. Theoretical Assumption

From the related theories on the literature review above, the researcher assumes that vocabulary learning strategy has a great contribution in helping learner to learn vocabulary and there will be significant difference in the students' vocabulary size and their vocabulary size for each level according to their learning strategy. Each student has different strategy to comprehend the knowledge and information that he or she gets. The strategy which works for one student might not work for some others. In acquiring vocabulary, different learners may employ different strategies that may affect their vocabulary size.

2.9. Hypotheses

Based on the theoretical assumption above, the researcher formulated the following hypotheses:

1. There is significant difference in the students' vocabulary size according to their vocabulary learning strategy.
2. There is significant difference in the students' vocabulary size for each level according to their vocabulary learning strategy.

III. METHOD

This chapter is concerned with the research method. Everything relates to the model of research, such as design, variables, population and sample, instruments, data collecting technique, criteria of good test, scoring system, research procedure and data analysis.

3.1. Design

Ex-post facto design was used by the researcher in conducting the research because there was one group that was involved in this research and there was no treatment to the sample. This research took vocabulary learning strategy used by learners as the independent variable and vocabulary size as the dependent variable. According to Setiyadi (2006), the design of the research was as follows:

T1 T2

Where,

T1 : Vocabulary learning strategy

T2 : Vocabulary size

3.2. Variables

This research consisted of the following variables:

- a. Students' vocabulary learning strategy (X)
- b. Students' vocabulary size (Y)

3.3. Population and Sample

In this research, 135 students were the participants of this study. They were taken from the tenth grade students of SMA Fransiskus, SMA N 5, SMA N 15 and SMA N 13 Bandar Lampung in academic year 2015/2016. Purposive sampling was used by the researcher in determining the sample of the research. The aim was the data which was gotten from the students would represent the case that could solve the research questions.

3.4. Instruments

There were two instruments that were used in this research, they were:

a. Questionnaire

Questionnaire is a list of questions and statements to be answered by the students. The questionnaire was used to measure the students' vocabulary learning strategy preferences. It consisted of 58 items. It was designed specifically based on Schmitt's taxonomy of L2 vocabulary learning (1997). The items in VLS contained five categories of strategies, there were determination, social, memory, cognitive, and metacognitive strategies. To be more specific, here was the table of specification for the questionnaire:

Table 3.1. Specification of the Questionnaire

Strategy Measured	Number of Questionnaire
Determination	1-9
Social	10-17
Memory	18-44
Cognitive	45-53
Metacognitive	54-58

The result was scored based on Likert Scale. The score was ranged from 1-5. There were five options to answer the question in one item of questionnaire, they were 1 (never use it), 2 (seldom use it), 3 (sometimes use it), 4 (often use it), and 5 (always use it).

In addition, the scoring system of this questionnaire was based on the average of each strategy. To get the VLS preferences of each strategy, the following scales were used to indicate the frequency of the usage of each strategy. According to the five-point rating scale, the values in the level of using could be explained as follows:

Table 3.2. Average Value of the Questionnaire

Average Value	Result
1.00-1.50	Never Used
1.51-2.50	Seldom Used
2.51-3.50	Sometimes Used
3.51-4.50	Often Used
4.51-5.00	Always Used

The overall average indicated the preferences of the learners' vocabulary learning strategies. The average for each subscale of the inventory showed which group of strategies (i.e., determination, social, memory, cognitive, and metacognitive) which was preferred to use by the learners. Then, by having this information the learners would know if they were in very high or very low in any of these strategy groups.

b. Vocabulary Size Test

The instrument which was used in this research was called WDMF or word definition matching format (Sutarsyah, 2006). The test belonged to the type of breadth vocabulary test. The vocabulary test consisted of four levels and each level consisted of 40 items as a sample. This level is derived from Bauer & Nation (1993) word level (1st 1000 words, 2nd

1000 words, 3rd 1000 words) which is basically derived from the list of frequency word order of General Service List (GSL) and 800 words of University Word List (UWL). Thus, up to the 3rd level, the word level consisted of 1000 base words and for UWL consisted of 800 base words. The students only needed to match the two lists, left and right, as shown in the example below:

Table 3.3. Word Definition Matching Format

A. Business	
B. Clock	1..... dinding/bagianrumah
C. Horse	2.....kuda/binatangberkakiempat
D. Pencil	3.....sepatu
E. Shoe	4.....jam
F. Wall	

3.5. Data Collecting Technique

In collecting the data, the researcher used some techniques as follow:

a. Questionnaire

After deciding the subject, the questionnaire was given by the researcher to the sample in order to find out what type of vocabulary learning strategies that they often used. There were 58 questions and the students had to checklist the optional honestly. The questionnaire required 30 minutes to be answered.

b. Vocabulary Size Test

Vocabulary size test was given by the researcher to find out their vocabulary size. In answering the question, the students should match the right word to go to with each meaning by writing the number of that word next to its meaning. Ninety minutes were given to the students to finish this test.

Using time efficiently was conducted by the researcher in collecting the data because the short study period was given by the teacher in each school. This was caused by students who would do the final test.

3.6. Validity

Validity of a test shows how far the test measures what is supposed to be measured (Setiyadi, 2006). To measure whether the instruments have a good quality or not, the researcher uses content validity and construct validity. Content validity is extended to which a test measures representative sample of the subject matter contents, the focus of the content validity is adequacy of the sample and simply on the appearance of the test (Hatch and Farhady, 1982: 251). Then, the construct validity is concerned with whether the test is actually in line with the theory (Hatch and Farhady, 1982).

3.6.1. Validity of the Questionnaire

The validity of questionnaire is also measured to find whether the components are suitable and related to the relevant theories of vocabulary learning strategy or not. To measure whether the questionnaire has a good quality or not, the researcher uses content validity and construct validity. In the content validity, each item of questionnaire should be appropriate with the strategy of vocabulary learning whereas in the construct validity, the items of questionnaire should be in line with the theory. In this research, all aspects of vocabulary learning strategies by Schmitt's taxonomy (1997) had been included in the questionnaire and each item of questionnaire represented each strategy.

3.6.2. Validity of the Vocabulary Size Test

Validity can be defined as the degree to which a test actually tests what it is intended to test. There are two basic types of validity; they are content validity and construct validity (Hatch and Farhady, 1982). A test can be considered to be valid if it can precisely measure the quality of the test.

3.6.2.1. Content Validity

Content validity is extended to which a test measures representative sample of the subject matter contents, the focus of the content validity is adequacy of the sample and simply on the appearance of the test (Hatch and Farhady, 1982: 251). The test items which are adapted from the materials that have been taught to the students should be constructed as to contain a representative sample of the course (Heaton, 1988). WDMF was prepared with a balance proportion of the levels that were going to be used.

3.6.2.2. Construct Validity

Construct validity is concerned with whether the test is actually in line with the theory of what it means to know the language (Shohamy, 1985: 74). It examines whether the test actually in line with the theory. The WDMF test was limited on knowing the meaning because the test aimed to measure receptive vocabulary size through word recognition.

3.7. Reliability

Reliability is the overall consistency of a measure. A measure is said to have a high reliability if it produces similar results under consistent conditions. Vocabulary learning strategies and vocabulary size test were the instruments in this research. The instruments should be tried out first whether the instruments had good quality to be used.

3.7.1. Reliability of the Questionnaire

The questionnaire was scored according to Likert scale whereas the reliability of the questionnaire was measured by using *Cronbach Alpha Coefficient*. The researcher used this because it was the most common scoring to assess the consistency of the indicators in the questionnaire. Here was the result table of the reliability of questionnaire:

Table 3.4. Reliability of Questionnaire

Cronbach's Alpha	N of Items
.956	58

The Cronbach's Alpha score was 0.956. It meant that all items were reliable, so the questionnaire was used to investigate the students' vocabulary learning strategies see (Appendix 5).

3.7.2. Reliability of the Vocabulary Size Test

Reliability refers to whether the test is consistent in its score and gives us an indication of how accurate the test score are (Shohamy, 1985:70). The concept of reliability stems from the ideas that no measurement is perfect even if we go to

the same scale there is always be concluded. To estimate the reliability of the test, the split-half technique was used in this research. Based on Pearson Product Moment Formula (Arikunto, 1997:69), the formula could be seen as follows:

$$r = \frac{\sum XY - \frac{(\sum X)(\sum Y)}{n}}{\sqrt{[\sum X^2 - \frac{(\sum X)^2}{n}][\sum Y^2 - \frac{(\sum Y)^2}{n}]}}$$

Where,

r : the coefficient of reliability between first group and second half group

X : odd number

Y : even number

n : numbers of students who take part in the test

X² : the square of X

Y² : the square of Y

X : total score of odd items

Y : total score of even items

Then this research used “Spearman Brown’s Prophecy Formula” (Hatch and Farhady, 1982:286) to know the coefficient correlation of whole items. The formula was as follows:

$$r_k = \frac{2r_l}{1+r_l}$$

Where,

r_k : the reliability of the test

r_l : the reliability of half test

The criterias of reliability are:

0.00- 0.19 : very low

0.20- 0.39 : low

0.40- 0.59 : average

0.60- 0.79 : high

0.80- 1.00 : very high

(Arikunto, 1998:260)

After conducting the try out test, the reliability of the vocabulary size test was calculated by the researcher. It showed that the reliability coefficient of the test was 0.992 (Appendix 6). This instrument was regarded as a very high reliable test to be used in the research since the range of very high criteria in the criteria of reliability is 0.80 – 1.00 (Arikunto, 1998:260).

3.8. Level of Difficulty

Level of difficulty relates to “how easy or difficult the item is from the point of view of the students who took the test. It is important since test items which are too easy (that all students get right) can tell us nothing about differences within the test population” (Shohamy, 1985:79). In order to find out the level of difficulty, this research used the following formula:

$$LD = \frac{R}{N}$$

Where,

LD : level of difficulty

R : the number of students who answer correctly

N : the total number of students who take the test

The criterias are:

<0.30 : difficult

0.30- 0.70 : average

>0.70 : easy

(Arikunto, 1997:214)

The result of difficulty level of the vocabulary size try-out test showed that there were 94 easy items, 59 average items, and 7 difficult items in this instrument. Below was the table displaying the difficulty level of the vocabulary size try-out test.

Table 3.5. Difficulty Level of the Vocabulary Size Try-out Test

Classification	Items	%
Easy	1,2,3,4,5,6,7,8,9,10,11,12,13,16,17,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,39,41,42,43,44,45,47,48,49,50,51,52,53,54,57,58,59,60,65,67,69,70,71,72,74,75,76,79,80,81,83,85,92,93,94,97,100,107,109,110,111,116,118,122,123,124,127,128,132,133,136,138,139,140,142,144,147,148,151,152,155,157,158	58.75
Average	9,14,15,18,19,37,38,40,46,55,56,61,63,64,66,68,73,78,82,86,88,89,90,91,95,96,98,101,102,103,104,105,106,108,112,113,114,115,117,119,120,121,125,126,129,130,131,134,135,141,143,145,149,150,153,154,156,159,169	36.875
Difficult	62,77,84,87,99,137,146	4.375
Total	160 items	100

3.9. Discrimination Power

Discrimination power refers to the extent to which the item differentiates between high and low level students on the test. According to Shohamy (1985:81), a good item according to this criterion is one in which good students do well and bad students fail. To find out the discrimination power, this research used the following formula:

$$DP = \frac{Upper - Lower}{1/2(N)}$$

Where,

DP : discrimination power

Upper : proportion of “high group” students getting the item correct

Lower : proportion of “low group” students getting the item correct

N : total number of students

(Shohamy, 1985)

The criterias are:

0.00- 0.20 : poor

0.21- 0.40 : satisfactory

0.41- 0.70 : good

0.71- 1.00 : excellent

(Negative) : bad items (should be omitted)

The discrimination power of the vocabulary size try-out test showed that there were 53 poor items, 58 satisfactory items, 38 good items and 11 excellent items. The following table presented the distribution of discrimination power of this instrument.

Table 3.6. Discrimination Power of Vocabulary Size Try-out Test

Classification	Items	%
Poor	2,4,5,6,10,20,21,23,28,29,31,32,33,35,41,48,49,51,52,54,57,60,67,70,71,75,76,79,80,81,83,92,97,116,122,123,124,127,128,132,133,136,138,139,142,147,148,152,154,155,157,158,159	33.125
Satisfactory	1,3,7,8,9,11,12,14,15,16,17,19,22,24,25,26,27,30,34,36,39,42,44,45,47,50,53,55,56,58,59,65,66,69,72,74,85,88,89,90,93,94,98,100,101,103,107,109,110,112,114,120,121,140,144,146,149,151	36.25
Good	13,18,37,38,40,43,46,61,62,63,64,68,73,77,78,82,84,87,91,96,99,111,115,118,125,126,129,130,131,134,135,137,141,143,150,153,156,160	23.75
Excellent	86,95,102,104,105,106,108,113,117,119,145	6.875
Total	160 items	100

Due to the analysis result on the difficulty level and the discrimination power described above, the test was still administered by the researcher to measure the students' vocabulary size.

3.10. Scoring System

Before analysing the data, the questionnaire and the vocabulary size test must be scored. There were 58 items which represented five strategies in this questionnaire. Then, there were five options to answer the question in one item of questionnaire, they were 1 (never use it), 2 (seldom use it), 3 (sometimes use it), 4 (often use it), and 5 (always use it). So, one item got one score as the minimal score and five score as the maximal score. Next, its score was counted up with the other scores. Finally, the total score of each strategy was gotten by the researcher.

Besides, the purpose of the vocabulary size test was to measure the students' vocabulary size. One correct answer was scored 1 whereas one wrong answer was scored 0. The students' vocabulary size was obtained by counting the number of correct answers to be divided by the number of items (sample) in every vocabulary level test. After this, the proportion of correct answers was found. Then, the researcher estimated the students' vocabulary size by multiplying it with the population; 1.000 words for each level with additional 800 words from UWL. For example, the WDMF test was used 40 items for every level. To know the students' vocabulary size in vocabulary size test, the students' score were computed by doing these activities:

1. Scoring the vocabulary test
2. Calculating the result of the vocabulary test

$$SS = \frac{\sum S}{SMPL} \times 1000 \text{ (1}^{\text{st}} \text{ level, 2}^{\text{nd}} \text{ level, 3}^{\text{rd}} \text{ level) or 800 (UWL)}$$

Where,

SMPL : Subject's Vocabulary Size at a Given Level

SS : A Subject's Score on the Level Test

S : Total Students' Vocabulary Score

For example, if a student could answer 25 items correctly in the first level (1st 1000 words), the student's vocabulary size was estimated about 625 words in the first 1000 word level. That was gotten by calculating the correct answers. Then, they were divided by 40 (sample). After that, they were multiplied by 1000.

$$\begin{aligned} SS &= \frac{25}{40} \times 1000 \\ &= 625 \end{aligned}$$

3.11. Research Procedure

In conducting the research, the researcher used following steps:

1. Determining the research question and determining the focus of the research.

In determining the problem, the researcher looked for some sources from the internet and read the books and E-journals that were related to this topic.

2. Determining the instruments

The instruments which were used in this research were:

- Vocabulary learning strategy
- Vocabulary size test

3. Determining subject of the research

In determining the sample of the research, the researcher chose one class of the tenth grade students in SMA Fransiskus, SMA N 5, SMA N 15 and SMA N 13 Bandar Lampung. The class was chosen purposively.

4. Trying out the instruments

The researcher conducted the try out to the students to check the validity, reliability, difficulty level, and discrimination power of the instruments.

5. Analysing the result of the try out test

After distributing the instruments in try out, the researcher analysed the validity and the reliability of the instruments.

6. Distributing the instruments

In this occasion, two instruments were distributed to the students.

7. Scoring the data

The researcher counted the scores of questionnaire and vocabulary size test.

8. Analysing the data

The researcher analysed the tabulated data in this step. The analysis was done by using SPSS 22.0 computer program. The researcher analysed the data by using one way anova.

9. Drawing conclusion

Lastly, the conclusion was drawn up based on the result of the data analysis.

3.12. Data Analysis

Analysing data is a very necessary step in this research. Setiyadi (2006: 255) says that data analysis is the process of organizing the data in order to gain regularity of the pattern and form of the research. To find out the difference of the students' vocabulary size according to their vocabulary learning strategy and to find out the difference of the students' vocabulary size for each level according to their vocabulary learning strategy, the researcher must follow some steps, they were:

1. Tabulating the score of the questionnaire and the vocabulary size test.
2. Analysing the data

The scores were analysed by using one way anova. In this research, some analyses were done by the researcher which involved the analysis of these following steps:

- The reliability and validity of vocabulary learning strategy and vocabulary size test.
- Level of difficulty and discrimination power of the vocabulary size test.
- The difference of the students' vocabulary size according to their vocabulary learning strategy.
- The difference of the levels of the students' vocabulary size according to their vocabulary learning strategy.

3. Making inference

The researcher inferred the difference of the students' vocabulary size according to their vocabulary learning strategy and the difference of the students' vocabulary size for each level according to their vocabulary learning strategy from the result of one way anova statistical package.

3.13. Hypotheses Testing

The hypotheses testing were used to prove whether the hypotheses which were proposed in this research were accepted or not. In the effort to measure the hypotheses, one way anova of SPSS 22.0 was used in this research. The hypotheses testing were stated as follow:

H₀1 : There is no significant difference in the students' vocabulary size according to their vocabulary learning strategy.

H₀2: There is no significant difference in the students' vocabulary size for each level according to their vocabulary learning strategy.

H₁1: There is significant difference in the students' vocabulary size according to their vocabulary learning strategy.

H₁2: There is significant difference in the students' vocabulary size for each level according to their vocabulary learning strategy.

In this research the hypotheses were analysed by one way anova, since it is a statistical technique which is aimed to test the comparative hypothesis and to examine whether there is significant difference between the means of two groups or more (Martono, 2011). The criteria for accepting the hypotheses based on one way anova were explained as follows:

H_0 is accepted if alpha level is higher than 0.05 ($p > 0.05$).

H_1 is accepted if alpha level is lower than 0.05 ($p < 0.05$).

V. CONCLUSIONS AND SUGGESTIONS

This chapter offers the conclusions of the research findings and suggestions for further research.

5.1. Conclusions

The comparison of means in the students' vocabulary size according to their vocabulary learning strategy shows that the students who often use metacognitive strategy have the highest mean of vocabulary size, followed by the students who often use memory strategy, the students who often use cognitive strategy, the students who often use social strategy and the students who often use determination strategy, but there is no statistically significant difference in the students' vocabulary size according to their vocabulary learning strategy particularly their vocabulary size for the first three levels. However, the students who often use cognitive strategy have a statistically significant difference in University Word List (UWL) vocabulary size level from the students who often use the other four vocabulary learning strategies: determination, social, metacognitive and memory strategies. This indicates that the use of vocabulary learning strategies partly resulted in the students' vocabulary size particularly UWL level.

5.2. Suggestions

Referring to the conclusion above, some suggestions could be listed as follows:

5.2.1. For the Teachers

It is suggested not to focus on the students' vocabulary learning strategy in designing the vocabulary learning activities. Meanwhile, cognitive strategy needs to be considered to be used by the teachers in teaching and learning vocabulary of UWL level.

5.2.2. For Further Researchers

It is suggested to consider the time allocation and the number of research samples in conducting the research to get more reliable on the result of the research. Using same topic with different population is needed to strengthen the previous theory. Considering other factors which affect the students' vocabulary size, for example the students' grade, motivation and learning style will enrich the theories related to the vocabulary size.

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