


A Study of Vocabulary Learning Strategies and their Effect on Vocabulary Development

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ABSTRACT

Language learners use Vocabulary Learning Strategies to learn new words or to consolidate the meaning of words they have already learnt. This paper presents findings of a study conducted to examine the vocabulary learning strategies (VLS) used by English as a second language (ESL) learners when learning English at tertiary level, in Sri Lanka. The aim of the study was to gain a better understanding of VLS used by ESL learners with the view of adopting better vocabulary teaching methods in the classroom. The study made use of a questionnaire, a vocabulary learning activity and a delayed post-test to obtain data. Schmitt's (1997) taxonomy of vocabulary learning strategies was utilized in categorizing the data collected. The research brought to light the common strategies used by learners when learning the meaning of unfamiliar words in the target language and the strategies used by them when recalling the meaning of already learnt words. The results show that when students fall back on their mother tongue to learn and retain the meaning of target language vocabulary it impedes the vocabulary learning process, the development of reading skills and target language proficiency.

1. Introduction

According to Wilkins (1972) "without grammar little can be conveyed, without vocabulary nothing can be conveyed." It is evident that vocabulary is the most required skill that is needed to communicate in any language as all other skills: reading, writing, speaking, and listening are founded on vocabulary.

Most students acquire vocabulary incidentally through indirect exposure to words; by listening and talking or by reading, but a considerable percentage of second language learners have an inadequate vocabulary to communicate their thoughts and ideas in the target language. This is mainly due to reasons such as a lack of exposure to the target language outside the classroom, using the mother tongue to communicate ideas, lack of the reading habit or due to lack of motivation to learn the language. As Hart and Risley (1995) point out, intervention in the vocabulary learning process in the classroom is therefore necessary in the development of a student's target language vocabulary.

The purpose of this study is therefore to examine the use of vocabulary learning strategies (VLS) by ESL learners with the objective of gaining a better understanding of how learners acquire vocabulary so as to adopt better vocabulary teaching methods in the ESL classroom.

The research population consisted of 25 first year engineering diploma students learning English at a higher educational institute in Sri Lanka. Data collection was done by means of a questionnaire, a vocabulary activity & a post- test. Data was analyzed based on Schmitt's (1997) taxonomy of vocabulary learning strategies.

The vocabulary activity was given with the intention of identifying vocabulary learning strategies used by students to find the meaning of ten unfamiliar words. No restrictions were imposed on the learners when they were doing this activity. The learners also had to mention the VLS they had used to find the meaning of the words.

The post- test was conducted to test the long term retention of the vocabulary items the students had previously learnt in the ESL classroom. As it was a test, they were not allowed to use their phones, move about or talk to each other.

Out of a number 160 students who faced this test there was evidence for 25 students resorting to translation from the mother tongue as a strategy to answer the questions. The success rate of these 25 students were compared with the results of 25 students who had used contextual clues to derive meaning of the words.

A questionnaire was also given to the teachers who were teaching English to the students to find out the vocabulary teaching strategies they were using to teach vocabulary in their classrooms.

Conclusions were made based on the results of VLS used by the students to find the meaning of unfamiliar words, the results of the post-test to test the long term retention of already learnt words and the comparison of the success rate of students who had resorted to mother tongue translation as a strategy and those who had used contextual clues to find the meaning of already learnt words. The paper concludes with recommendations for adopting better teaching strategies in the ESL classroom.

2. Literature Review

Although possessing a good vocabulary plays a crucial role in communication, vocabulary development or how learners acquire vocabulary did not attract much attention in second language acquisition research till the 1990s, but has been gaining increased attention thereon.

During the 1990s several researchers attempted to develop frameworks for categorizing vocabulary learning strategies such as O'Malley and Chamot (1990) who divided vocabulary VLSs into three types: metacognitive strategies, cognitive strategies, and social/affective strategies, and Oxford (1990) who developed a taxonomy of VLSs which included a list of six major vocabulary learning strategy categories: memory, cognitive, compensation, metacognitive, affective and social.

Oxford (1990)'s taxonomy is categorized under two headings as given below:

Direct Strategies

- a. Memory strategies that relate new material to existing knowledge.
- b. Cognitive strategies that exhibit the common function of manipulation or transformation of the target language by the learner.
- c. Compensation strategies that involve different ways of compensating for missing
- d. knowledge.

Indirect Strategies

- a. Metacognitive strategies that involve a conscious overview of the learning process and help in making decisions about planning, monitoring, or evaluating the best ways to study.
- b. Affective strategies that exhibit how to manage one's emotions in language learning
- c. Social strategies that use interaction with other people to improve language learning.

Schmitt (1997) was of the opinion that a lack of a comprehensive list of VLSs was hindering the study of vocabulary acquisition and set about developing a comprehensive taxonomy of VLSs and organized it based on Oxford's (1990) classification system of learning strategies, and Cook and Mayer's (1983) Discovery/Consolidation strategies. However, Schmitt (1997) taxonomy had only four strategy groups: Social, Memory, Cognitive, and Metacognitive. Schmitt was of the view that 'there was no category in Oxford's system which adequately described the kind of strategies used by an individual when faced with discovering a new word's meaning without recourse to another person's expertise' and added another new category –Determination Strategies (DET) to the taxonomy. Schmitt's (1997) final taxonomy of vocabulary learning strategies is organized according to both Oxford's (1990) system and the Discovery/Consolidation distinction. The taxonomy (See Appendix 1 for Schmitt's final taxonomy of vocabulary learning strategies) contains five strategy groups with 58 individual strategies, divided into two categories. The first category includes the strategies that learners use to determine the meaning of a word when they encounter it for the first time and the second category gives the strategies learners use to consolidate the meaning of the word when they encounter it again.

Category 1: Strategies for the discovery of a new word's meaning:

- Determination
- Social

Category 2: Strategies for consolidating a word's meaning.

- Social
- Memory
- Cognitive
- Metacognitive

Diamond and Gutlohn (2006) state that "Vocabulary is acquired incidentally through indirect exposure to words and intentionally through explicit instruction in specific words and word-learning strategies". Graves (2000) was of the view that students need to be explicitly taught methods for intentional vocabulary learning. According to Graves, effective intentional vocabulary instruction should include:

- "Teaching specific words (rich, robust instruction) to support understanding of texts containing those words,
 - Teaching word-learning strategies that students can use independently,
- &
- Promoting the development of word consciousness and using wordplay activities to motivate and engage students in learning new words".

The United States' National Reading Panel formed in 1997 to study the 'effectiveness of different approaches used to teach children to read' states in its report (NRP 2000) that "there is no single research-based method for teaching vocabulary" and recommended using a variety of direct and indirect methods for teaching vocabulary. Beck et al. (2013) maintained the importance of Student-Friendly Definitions in vocabulary teaching and was of the opinion that the meaning of a new word should be explained to students rather than just providing a dictionary definition for the word which may be difficult for them to understand. They suggested that two basic principles should be followed in developing student-friendly explanations or definitions:

1. Illustrate how the word is typically used.
2. Explain the meaning using everyday language that is accessible and meaningful to the student.

They further added that as a word's natural context is not sometimes informative or helpful for deriving a word's meaning, instructional contexts that provide strong clues as to the meaning of a word should be developed intentionally. Observing that students often forget the words a few days after learning them in class, Hulstijn (1992) maintained that the meanings of words that are correctly inferred during a reading task are remembered better than words explained by synonyms. Laufer and Hulstijn. (2001) stressed the importance of retention of vocabulary and proposed the 'Involvement Load Hypothesis' which states that tasks that induce 'deeper processing and greater involvement' is likely to produce better vocabulary retention effects. Graves and Watts-Taffe (2002) states that there are four components to any vocabulary instruction program: wide reading so that implicit learning can occur; teaching individual words; teaching word learning strategies, and fostering word consciousness. According to Graves and Watts-Taffe (2002), teaching individual words is "most effective when learners are given both definitional and contextual information when learners actively process the new word meanings, and when they experience multiple encounters with words" and recommend that word learning strategies such as using context, using word parts to unlock the meanings of unknown words, and teaching students how to use the dictionary should best be used in teaching vocabulary.

3. Methodology

The purpose of the present study is to examine the use of vocabulary learning strategies used by ESL learners with a view of understanding the process of vocabulary learning in order to adopt better methods for teaching vocabulary. The research population consisted of 25 first year engineering diploma students learning English at a higher educational institute in Sri Lanka. Data collection was done by means of a questionnaire, a vocabulary activity & a post- test. Data was analyzed based on Schmitt's (1997) taxonomy of vocabulary learning strategies.

3.1 Vocabulary Activity

This activity was given with the intention of identifying vocabulary learning strategies that were used by students to find the meaning of ten unfamiliar words. (See Appendix B). Students were given 10 multiple choice questions with four options and were asked to find the words closest in meaning to the given words / phrases. One sample sentence was given for each word. Students were asked to read the given sentences and select the correct answer. They also had to mention the VLSs they had used to find the meaning of unfamiliar words. The words tested were malnutrition, immature, tirelessly, undisputedly, predetermined, ubiquitous, rash, esteemed, curtail and clandestine. The Data thus collected was analyzed based on Schmitt’s (1997) taxonomy of vocabulary learning strategies for discovering a new word’s meaning as given below:

- DET Analyze part of speech
 - DET World lists
 - DET Analyze affixes and roots
 - DET Flash cards
 - DET Check of L1 cognate
 - SOC Ask teacher for an L1 translation
 - DET Analyze any available pictures or gestures
 - SOC Ask teacher for paraphrase or synonym of new word
 - DET Guess from textual context
 - SOC Ask teacher for a sentence including the new word
 - DET Bilingual dictionary
 - SOC Ask classmates for meaning
 - DET Monolingual dictionary
 - SOC Discovery new meaning through group work activity
- (DET – Determination strategy, SOC - Social strategy)

3.2 Vocabulary Activity 2 - Post-Test

A delayed post- test was conducted to test the long term retention of the vocabulary items the students had previously learnt in the ESL classroom. The students had to fill in the blanks with the given vocabulary items (See Appendix C) and were not allowed to use their phones, move about or talk to each other. The post test was conducted with a view of finding out whether the students were able to recall what they had learnt previously and to see whether any evidence can be found of the strategies used by the students to consolidate the meaning of words they had already learnt.

3.3 Questionnaire for Teachers

A questionnaire was also given to six teachers who were teaching English to the students to find out the vocabulary teaching strategies that they were using to teach vocabulary in their classrooms. (See Appendix D)

4. Results and Discussion

Figure 4-1 below presents the results of vocabulary activity 1 which was given to identify the vocabulary learning strategies that were used by students to find the meaning of ten unfamiliar words.

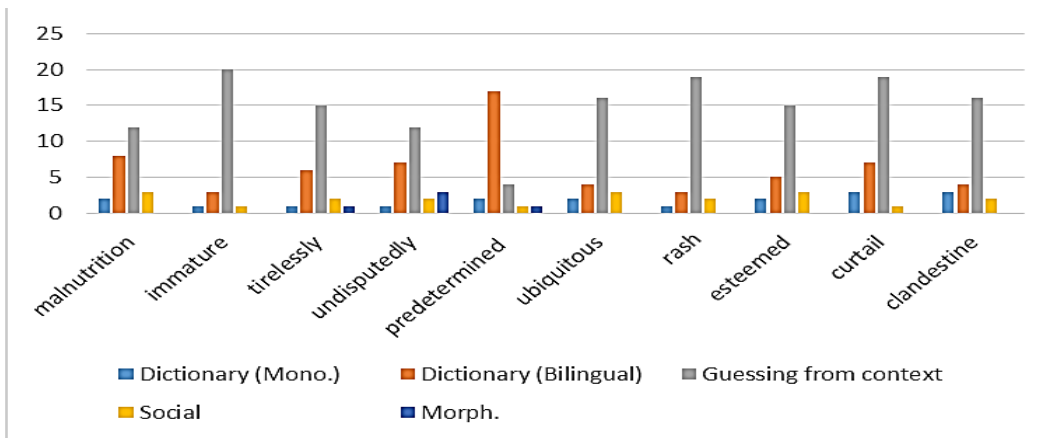


Figure 4 - 1 Vocabulary Learning Strategies

According to the results, the strategies used by students in learning the meaning of new words were, guessing from context, using the bilingual dictionary, using the monolingual dictionary, the social strategy and morphological analysis. It was seen that a considerable number of students were conveniently using their mobile phones to access the bilingual and the monolingual dictionaries although they could have easily guessed the meanings from the contextual clues given. The last two strategies; social and morphological analysis were used at a minimum.

Activity 2 -Post-Test to test long term retention of words already learnt.

An attempt was made to find out how students had performed at this test and to find evidence for any VLSs used. Figure 4-2 below shows the marks obtained by individual students in this activity.

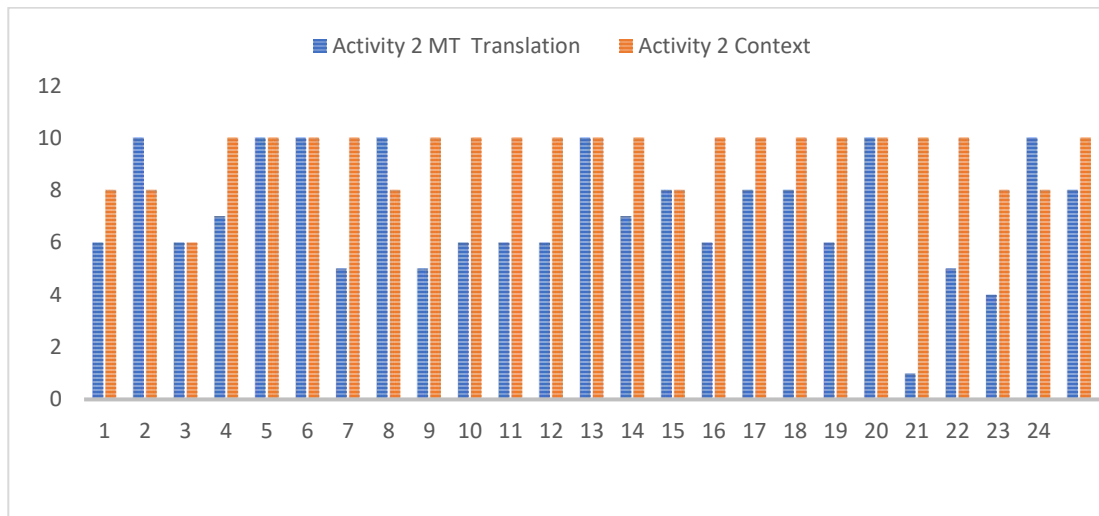


Figure 4 - 2 Marks obtained for Activity 2

It was found that at the delayed post-test, in the absence of the mobile phones and not being able to use the social strategy, most students had used contextual clues to find the meanings of the words. It was seen that around 16% of (25/160) students had resorted to L1 translation as a strategy in answering the questions. This was evident in the test paper as they had written the L1 translation of each word against the relevant words in the test paper. Therefore, it can be assumed that these students were using their L1 (memory strategy) as a means of consolidating the meaning of words that they had already learnt in the classroom. When considering the success rate, the success rate of students who had resorted to their L1 was lower than those who were using contextual clues to find word meaning.

Figure 3, below presents students' success rate in Activity 2 (using contextual clues, and MT translation.). It is seen that when students tried to guess from context their success rate was 9.36, whereas the success rate of students who had used L1 translation was 7.12.

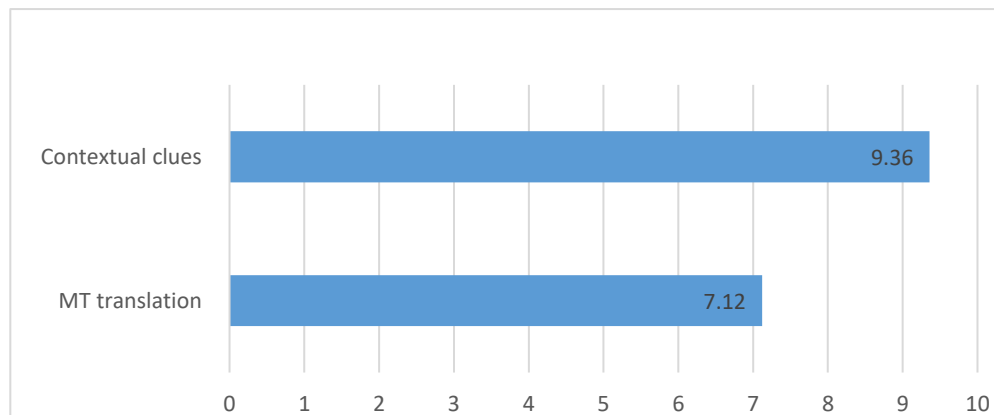


Figure 4 - 3 Mean values of Activity 2

According to the questionnaire that was given to the teachers it was found that the teachers were using a variety of vocabulary teaching methods such as using definitions, synonyms and antonyms, creating different sentences that contained the new word, whole-class interactive sessions, group/pair activities, helping students to figure out the meaning through context, morphemic analysis and allowing students to practice task based and cooperative learning approaches as suitable, in their classrooms. Their use of the students' L1 in the classroom was at a minimum.

5. Conclusion

Vocabulary development is crucial in developing language proficiency and learning to read and comprehend text using contextual clues is a necessary skill that any language learner needs to develop. This study found that a considerable percentage of students were using their mobile phones to access the bilingual dictionary in the classroom to find the meaning of unfamiliar words. Although research has shown that words that are looked up in a dictionary during a reading task are remembered better (Knight, 1994), it was seen that the success rate of students who had translated target language words to their L1 and/or students who had used the bilingual dictionary had received a lower success rate when retaining target language word meanings.

According to the questionnaire given to the teachers, it was seen that the teachers were using a variety of teaching methods in the classroom such as helping the learners to figure out the meaning of words through contextual clues, morphemic analysis and different activities that allow students to practice task-based and cooperative learning methods that would help in long term retention of word meaning. Despite this, 16% of students were seen to rely on using the bilingual dictionary to find the meaning of unfamiliar words which required only a low level of mental processing. This had adversely affected the long term retention of the words they had already learnt.

The results of the study show that although 84% of students had successfully consolidated the meaning of words they had learnt as a result of using different word consolidating strategies, the success rate of students who fell back on their mother tongue received a lower success rate. Since research has shown that translating to the mother tongue would only increase the 'breadth of vocabulary' and not the 'depth of vocabulary' it can be concluded that this strategy is a less effective strategy in retention and development of vocabulary which would delay the acquisition of vocabulary and the development of target language proficiency.

6. Recommendations

Since depending on the bilingual dictionary and translating from the mother tongue has adversely affected vocabulary development in the students, it is recommended that students should be discouraged from using the bilingual dictionary when learning vocabulary.

It is also recommended that teachers use vocabulary learning activities that induce 'deep processing' and greater involvement of the students in the activities in the classroom so that it would produce better retention of the words learnt.

Also, the students should be given the opportunity to 'experience multiple encounters' with the words learnt in the classroom by designing activities and games that include already learnt words. Such activities would help in long term retention of the target language vocabulary already learnt in the classroom.

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Appendix A

Taxonomy of Vocabulary Learning Strategies (Schmitt, 1997)

Strategies for the discovery of a new word's meaning

DET	Analyze part of speech	
DET	World lists	
DET	Analyze affixes and roots	
DET	Flash cards	
DET	Check of L1 cognate	
SOC	Ask teacher for an L1 translation	
DET	Analyze any available pictures or gestures	
SOC	Ask teacher for paraphrase or synonym of new word	
DET	Guess from textual context	
SOC	Ask teacher for a sentence including the new word	
DET	Bilingual dictionary	
SOC	Ask classmates for meaning	
DET	Monolingual dictionary	SOC
	Discovery new meaning through group work activity	

Strategies for consolidating a word once it has been encountered

SOC	Study and practice meaning in a group
MEM	Use Keyword Method
SOC	Teacher checks students' flash cards or world lists for accuracy
MEM	Affixes and roots (remembering)
SOC	Interact with native-speakers
MEM	Part of speech (remembering)
MEM	Study word with a pictorial representation of its meaning
MEM	Paraphrase the word's meaning
MEM	Image word's meaning
MEM	Use cognates in study
MEM	Connect word to a personal experience
MEM	Learn the words of an idiom together
MEM	Associate the word with its coordinates
MEM	Use physical action when learning a word
MEM	Connect the word to its synonyms and antonyms
MEM	Use semantic feature grids
MEM	Use semantic maps
COG	Verbal repetition
MEM	Use 'scales' for gradable adjectives
COG	Written repetition
MEM	Peg Method
COG	Word lists
MEM	Loci Method
COG	Flash cards

MEM	Group words together to study them
COG	Take notes in class
MEM	Group words together spatially on a page
COG	Use the vocabulary section in your textbook
MEM	Use new word in sentence
COG	Listen to tape of word lists
MEM	Group words together within a storyline
COG	Put English labels on physical objects
MEM	Study the spelling of a word
COG	Keep a vocabulary notebook
MEM	Study the sound of a word
MET	Use English-language media (songs, movies, newscasts, etc.)
MEM	Say new word aloud when studying
MET	Testing oneself with word tests
MEM	Image word form
MET	Use spaced word practice
MEM	Underline initial letter of the word
MET	Skip or pass new word
MEM	Configuration
MET	Continue to study word over time

Appendix B Activity 1

Underline the correct answer.

- No matter where you go, the Internet is following you. Almost every portable device is being made with an Internet connection. Most new TVs and many other appliances come with Internet connections as well. The Internet is truly ubiquitous. If something is ubiquitous it is...
 - furry and will bite you
 - costs too much money
 - is everywhere
 - causes sadness
- Speaking rudely to the judges, was rash behavior. You really hurt your chances of winning! In this context, what does "rash" mean?
 - an itchy skin condition
 - funny
 - admirable
 - with little thought or consideration
- Severe malnutrition is most often found in developing countries. What does "malnutrition" mean?
 - poverty
 - undernourishment
 - hunger
 - physical disability
- Wherever he goes, the esteemed Dr. Sanchez is applauded for his life saving research. What does "esteemed" mean?
 - extraordinary
 - very old
 - unpopular
 - greatly admired
- Fighting, name-calling and other immature behaviour will not be tolerated. What does the word "immature" mean?
 - not good or right
 - disrespectful
 - disorderly
 - childish
- If you don't curtail your spending, you'll be broke in no time at all!
Which word is a synonym (a word with similar meaning) of "curtail"?
 - reduce
 - follow
 - behind
 - buy
- For hours he drove tirelessly back and forth. What does the word "tireless" mean?
 - weekly
 - unwillingly
 - without fatigue
 - resolutely

Appendix D**Questionnaire (Vocabulary Teaching Strategies)**

There is no one best strategy for teaching the meaning of words. How often do you practice the following vocabulary teaching strategies in class according to their suitability?

Please tick.

	Vocabulary Teaching Strategy	Always	Usually	Sometimes	Rarely	Never
1.	How often do you explain the meaning directly to the learner by using definitions, synonyms, antonyms etc.?					
2.	How often do you use mother tongue translation?					
3.	How often do you create different sentences containing the new words for learners to understand meaning?					
4.	How often do you conduct whole class interactive discussions so that students get the opportunity to communicate with you and their peers?					
5.	To what extent do you help students figure out the meanings of unknown words on their own through context, using context clues?					
6.	How often do you create activities / situations for students to practice the meaning of a word in a group to consolidate its meaning?					
7.	How often do you practice task-based teaching in your language classes to strengthen vocabulary usage? (through quizzes and exercises / crossword puzzles, using a dictionary, vocabulary games etc.)					
8.	How often do you employ the cooperative vocabulary teaching strategy where students work in small groups and help each other?					
9.	How often do you ask students to select the vocabulary items that they want to learn?					
10.	How often do you teach them word-learning strategies like morphemic analysis that students can use independently?					
11.	How often do you give students the opportunity to practice the word orally in communicative activities?					
12.	How often do you use visuals when teaching vocabulary? White-board, pictures etc.					