

## DIAGNOSING ESL LEARNERS' VOCABULARY KNOWLEDGE THROUGH MEMORY STRATEGIES

Aravind B R<sup>1\*</sup>, Dr. Rajasekaran V<sup>2</sup>

<sup>1</sup>Research Associate, Division of Social Sciences and Languages, School of Advanced Sciences (SAS), Vellore Institute of Technology, Chennai, India, <sup>2</sup>Assistant Professor, Division of Social Sciences and Languages, School of Advanced Sciences (SAS), Vellore Institute of Technology, Chennai, India.  
Email: <sup>1\*</sup>aravind.abur@gmail.com, <sup>2</sup>rskaran2003@gmail.com

Article History: Received on 18<sup>th</sup> June 2019, Revised on 17<sup>th</sup> July 2019, Published on 4<sup>th</sup> September 2019

### Abstract

**Purpose of the study:** The present study diagnoses the vocabulary knowledge employed by ESL learners' through memory strategies. Schmitt's (1990) Taxonomy of Vocabulary Learning Strategies (VLS) questionnaire was adopted and administered to 93 ESL learners. In order to get authenticities about the ESL learners' memory strategies with vocabulary learning, semi-structured interviews were also conducted with 30 participants who completed the questionnaire. The result exposed the subsequent array of memory strategies used by ESL learners from the most frequent to the least frequent strategies, particularly findings revealed that 'Use new word in sentences', 'Study word with a pictorial representation of its Meaning', 'Connect word to a personal experience' are most popular whereas 'Use scales for gradable adjectives', 'Relating word to unrelated items (Peg method)' were least used memory strategies.

**Methodology:** [Schmitt's Vocabulary Learning Strategies Questionnaire \(VLSQ\) \(1997\)](#) was favored to diagnose the vocabulary knowledge through memory strategies of 93 ESL learners. Initially the responses were collected through Google Forms. Additionally, 30 ESL learners were randomly selected for interviews in accordance to reassure participants' comprehension of the subject matters.

**Main Findings:** The study finds effective result among 93 ESL learners in acquiring vocabulary knowledge while using memory strategies with the assistance of technological modalities. It also listed the most frequent and least frequent use of memory strategies in [Schmitt's Vocabulary Learning Strategies Questionnaire \(VLSQ\) \(1997\)](#).

**Applications of this study:** The present study is conducted in English Language Laboratory, where ESL learners' can be benefitted and the learners can use these memory strategies while learning a new vocabulary when encountering a word.

**Novelty/Originality of this study:** The existing technological modalities will assist the learners to correlate more effectively. Subject and language experts in the field can design the instructional materials and tools to assist ESL learners to improve vocabulary knowledge through memory strategies.

**Keywords:** *Vocabulary knowledge, Learning, Memory strategies, Word knowledge, ESL learners, Vocabulary acquisition.*

### INTRODUCTION

Vocabulary is a critical and pivotal part of comprehension. The ultimate goal of comprehension is reading, hence vocabulary development is essential and it cannot be underestimated. Vocabulary is the currency of communication. Vocabulary learning enhances all areas of language skills straight from listening, speaking, reading to writing. [Shepherd \(1984\)](#) looks at vocabulary learning in two ways. "Learning Vocabulary" and "Using Vocabulary", learning vocabulary is the competency of the learner to link and correlate a vocabulary with its rationale is the principle for understanding. On the other hand, the primary focus for using vocabulary is to construe the context of sentences and to grasp the content. [Hodges \(1984\)](#) defined the term vocabulary as language comprises and embraces the array of dictions of the language that are transferred through written or spoken formats.

### SURVEY OF LITERATURE

Language experts, practitioners, researchers have spent most of the time on learning strategies for vocabulary retention to remember and its effectiveness in real teaching and learning atmosphere. [Sanaoui \(1995\)](#) remarked, "those students who had a more structured vocabulary learning approach performed better at recalling vocabulary". Falcon Darlo Restrepo [Ramos \(2015\)](#) reviewed incidental vocabulary learning under the title, "Incidental Vocabulary Learning in Second Language Acquisition: A Literature Review" in the article, Falcon Darlo Restrepo Ramos surveyed the understanding of incidental means and relationship of reading and the promotion of vocabulary learning through strategies and tasks with technology-based methods. [Ahmad Azman Mokhtar et al., \(2010\)](#) conducted a study, "Vocabulary Learning Strategies of Adult ESL Learners" with 360 students. [Gu and Johnson's \(1996\)](#) questionnaire was used to gather the data. Results revealed that guessing and dictionary strategies the most and metacognitive regulation, note-taking, rehearsal, encoding, and activation strategies were least used. TED serves as an exploratory factor for ESL learners' vocabulary knowledge through social factor ([Aravind & Rajasekaran, 2018](#)). TED influences ESL learners' persuasive and argumentative vocabulary for effective communication ([Aravind & Rajasekaran, 2019](#)). [Surina Nayan et al., \(2015\)](#) conducted a study on



vocabulary learning strategies under the title, “A Preliminary Study on Vocabulary Learning Strategies Used by the Students from the Faculty of Accountancy” with 52 participants. Data collected from the questionnaire it showed that L2 learners preferred to communicate, read books, listen to songs and daily routine activities as strategies to acquire vocabulary.

### **SIGNIFICANCE OF THE STUDY**

The prudent research plans to diagnose ESL learners’ vocabulary knowledge through memory strategies. The researcher believes that effective strategies for learners’ hunt for acquiring a new vocabulary through memory strategies will result in an optimistic and long-lasting outcome in the teaching and learning process. Furthermore, the existing technological modalities will assist the learners to correlate more effectively. Subject and language experts in the field can design the instructional materials and tools to assist ESL learners to improve vocabulary knowledge through memory strategies.

### **RESEARCH OBJECTIVES**

This study is centered to diagnose ESL learners’ vocabulary knowledge through memory strategies. The research is outlined to make ESL learners an independent strategic learner particularly on learning new vocabulary. The investigation aims:

- To diagnose and identify ESL learners’ vocabulary knowledge through memory strategies.
- To explore the relationship between memory strategies and ESL learners’ way of learning new vocabulary in the target language.

### **RESEARCH QUESTIONS**

This research will augment the memory strategies and techniques as a podium for ESL learners to improve the meaning of new vocabulary in the target language. The following research questions can be condensed for the study:

- Is there a relationship between memory strategies and ESL learners to achieve vocabulary knowledge?
- Do ESL learners sentient of attaining vocabulary knowledge through memory strategies?
- What are the most and least frequently used memory strategies of ESL learners for learning new vocabulary?

### **MEMORY STRATEGIES**

[Schmitt’s Vocabulary Learning Strategies \(1997\)](#) prepared for language learners to attain fresh vocabulary from these strategies. This research has utilized Schmitt’s memory strategies to diagnose ESL learners’ vocabulary knowledge. Memory strategies involve a mixture of various learning materials together in order to remember and retrieve the learning process. In language learning, especially vocabulary acquisition ‘Semantic maps’, ‘Image word form’, ‘Underline initial letter of the word’ are possible ways to improve and enhance the knowledge of a particular vocabulary. [Goleman \(1986\)](#) points out four major studies with regard to memory strategies that defend the importance of memory strategies in nutshell:

- “First, the mind’s storage capacity for visual information exceeds the capacity for verbal material
- Second, chunks of information are transferred to long-term memory only through visual images
- Third, visual images are capable of recalling verbal materials
- Fourth, most of the learners prefer for visual learning rather than verbal materials”

### **RESEARCH METHODOLOGY**

[Schmitt’s Vocabulary Learning Strategies Questionnaire \(VLSQ\) \(1997\)](#) was favored to diagnose the vocabulary knowledge through memory strategies of 93 ESL learners. All 25 items in the questionnaire were accumulated through an online source of Google Forms. The rating scale for the predominance of use of the memory strategies as: Helpful, Not Helpful Not Used but Helpful and Not Aware correspondingly.

### **SAMPLE AND SAMPLE SIZE**

To diagnose and identify the research study, a convenience sample was preferred consisting 93 ESL learners (46 males, 47 females) who were registered engineering in VIT Chennai, as the sample of the research is shown in Table 1. The learners’ aptitude level varies from intermediate to advanced level. Demographical details of participants’ background and the length of time learning English were gathered from the samples’ responses. All the test takers were uncovered to the similar handling environment for the research although they had different language backgrounds.

**Table 1: Descriptions of Samples**

Category	Number
Male	46
Female	47
Total	93

## PROCEDURE

In sequence to diagnose the ESL learners' vocabulary knowledge through memory strategies, the participants were instructed to respond to Schmitt's Vocabulary Learning Strategies particularly on memory strategies indisputably. After answering the questionnaire, the researcher collected the participants' responses. Additionally, 30 ESL learners were randomly selected for interviews on representatives from the same sample population used for the study. The semi-structured interviews were collected after learners' responded to the questionnaire, in accordance to reassure participants' comprehension of the subject matters.

## RESULTS

The findings of the research diagnose the participants' responses to the questionnaire and semi-structured interviews. The investigator endeavored to details the results and findings on the root of the intended research objectives, to diagnose and identify ESL learners' vocabulary knowledge through memory strategies and to explore the relationship between memory strategies and ESL learners' way of learning new vocabulary in the target language.

**Table 2: Statistical Details of ESL Learners' Vocabulary Knowledge through Memory Strategies**

Strategies used to learn the word	Helpful	Not Helpful	Not used but Helpful	Not Aware
1. Study word with a pictorial representation of its Meaning	81	9	3	0
2. Create a mental image of the word	75	9	9	0
3. Connect word to a personal experience	80	1	12	0
4. Associate word with its coordinates	63	6	12	12
5. Connect the word to its synonyms and antonyms	75	6	6	6
6. Use Semantic maps (brainstorming for any related words)	51	9	15	18
7. Use scales for gradable adjectives	43	9	14	27
8. Relating word to unrelated items (Peg method)	40	9	15	29
9. Relating word to related items (Loci method)	72	3	12	6
10. Group words to study them	60	3	12	18
11. Group words spatially on a page	54	3	15	21
12. Group the words in a storyline	60	12	12	9
13. Use the new word in sentences	84	3	3	3
14. Study the spelling of the word	78	6	6	3
15. Study the sound of the word	69	15	6	3
16. Say the new word aloud when studying	75	6	6	6
17. Image word form	75	9	3	6

18. Underline initial letter of the word	54	9	9	21
19. Use the keyword method (Connect word to similar-sounding word in mother tongue)	60	6	12	15
20. Remembering affixes and root words	57	12	9	15
21. Remembering parts of speech	44	18	12	19
22. Paraphrase the word's meaning	63	6	9	15
23. Use cognates in study	42	15	9	27
24. Learn the words of an idiom together	60	15	9	9
25. Use physical action when learning a word	69	9	6	9
<i>Sample Standard Deviation</i>	13.0922	4.3657	3.7868	8.8850
<i>Variance (Sample Standard)</i>	171.4066	19.06	14.34	78.9433
<i>Population Standard Deviation</i>	12.8277	4.2775	3.7103	8.7054
<i>Variance (Population Standard)</i>	164.5504	18.2976	13.7664	75.7856
<i>Sum</i>	1584	208	236	297
<i>Mean (Average)</i>	63.36	8.32	9.44	11.88
<i>Standard Error of the Mean</i>	2.6184	0.8731	0.7573	1.7770

The statistical detail includes sample standard deviation, variance (sample standard), population standard deviation, variance (population standard), sum, mean and standard error of all the twenty-five strategies. Table 2 shows the statistical details of ESL learners' vocabulary knowledge through memory strategies.

**Table 3: Ranking Top 3 Memory Strategies of ESL Learners' Vocabulary Knowledge**

Statement of the Strategy	Item	Rank	No. of Participants
Use the new word in sentences	13	1	84
Study word with a pictorial representation of its Meaning	1	2	81
Connect word to a personal experience	3	3	80

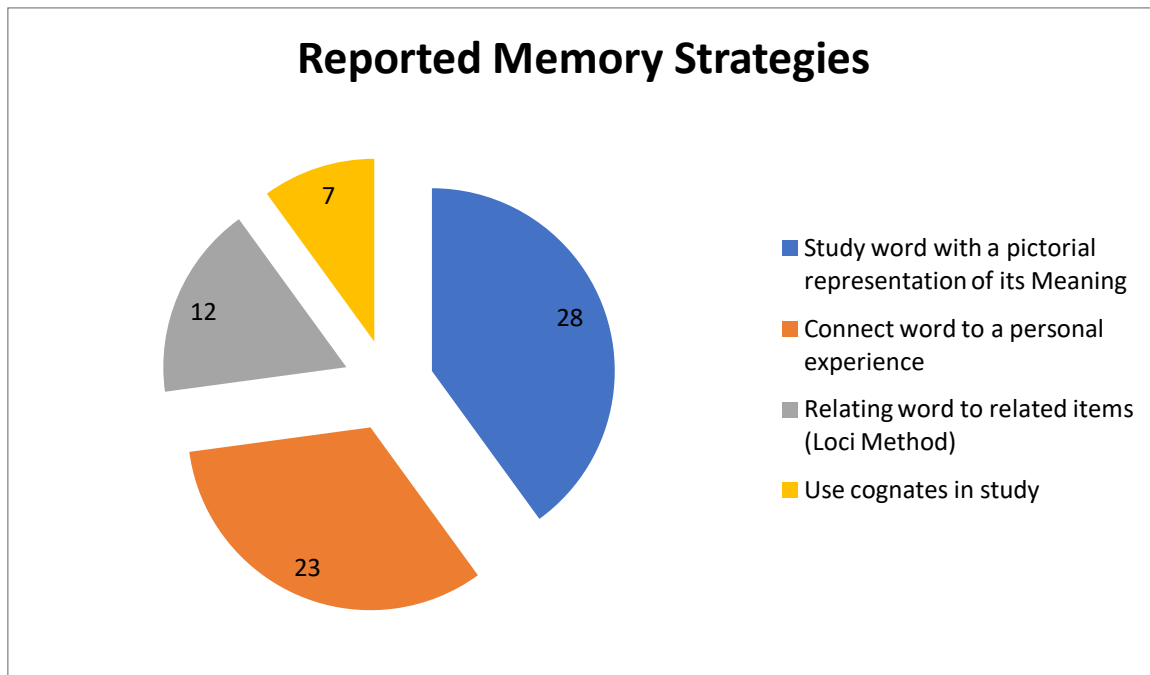
**Table 4: Ranking Least 3 Memory Strategies of ESL Learners' Vocabulary Knowledge**

Statement of the Strategy	Item	Rank	No. of Participants
Relating word to related items (Loci method)	9	25	40
Use cognates in study	23	24	42
Use scales for gradable adjectives	7	23	43

Ranking the topmost and least 3 memory strategies of ESL learners' vocabulary knowledge were shown in Table 3 and Table 4. Based on participants' responses to the questionnaire, the rankings were calculated. Detailed descriptions are given in the discussion part.

**Table 5: The Most and the Least Reported Memory Strategies among ESL Learners' Vocabulary Knowledge**

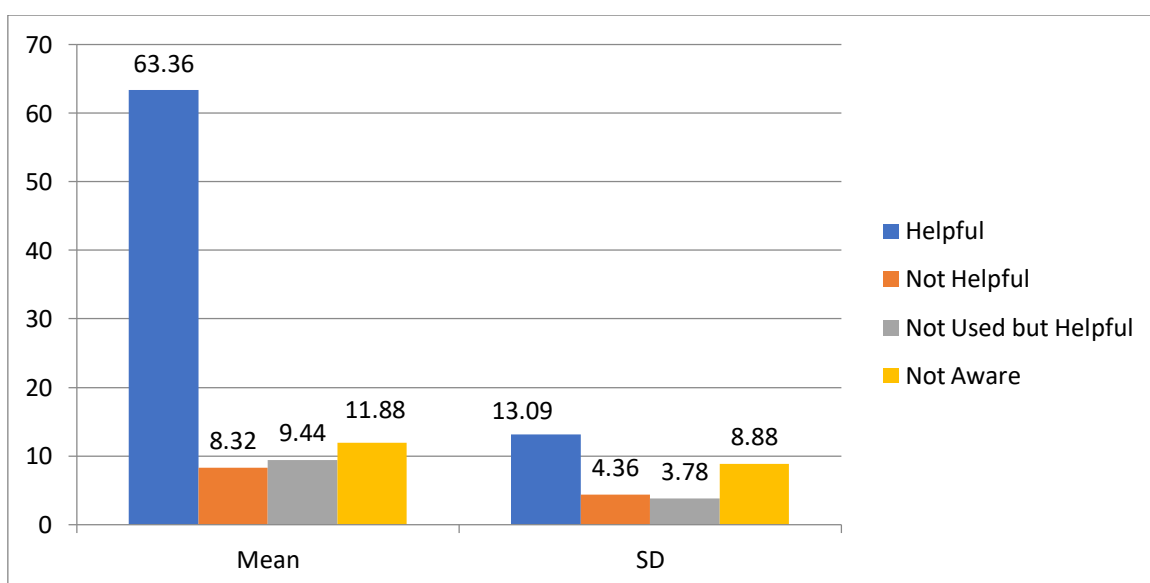
Statement of the Strategy	Item	No. of Participants
Study word with a pictorial representation of its Meaning	1	28
Connect word to a personal experience	3	23
Relating word to related items (Loci Method)	9	12
Use cognates in study	23	7



**Figure 1: Graphical Representation of the Most and the Least Reported Memory Strategies among ESL Learners' Vocabulary Knowledge**

To ascertain the results and get forward exacting information of ESL learners' memory strategies, students were posed open-ended questions in the form of a semi-structured interview by the investigator. The results of the interview are mentioned in Graph – 1. The questions asked to the participants was what are the most and least frequently used memory strategies of learning new vocabulary and why? 30 participants were randomly selected from the same sample population used for the study. 28 interviewees stated that they study word with a pictorial representation of its meaning. Learners reported that pictorial representation helps the learners to remember the words which they learn. 23 interviewees reported that they connect word to personal experience to learn the words. The participants connect real life incidents and experience to know and learn a word. On the other hand, 12 participants responded that they relate word to related items (Loci Method) and only 7 participants use cognates in study to learn and remember new words. The least frequent strategies are reported on the lack of awareness of the strategies. Learners use the pictorial representation and personal experience as reliable and effective memory strategies to recollect and retrieve the learning process.

## DISCUSSION



**Figure 2: Mean and SD Value of Memory Strategies among ESL Learners' Vocabulary Knowledge**

[Danesi \(2003\)](#) states, though the importance of memory strategies was plenty, learners rarely uses these strategies especially 4% of the brain is actively utilized during traditional language teaching. As [Oxford \(1990\)](#) rightly pointed “put the mind storage capacity for visual information exceed its information for verbal materials furthermore, a large proportion of learners have preference for visual images”. Memory strategies were selected to find the effect of using them both in storing and retaining vocabulary in teaching and learning process. In the present paper, it was diagnosed that learners attributed to memory strategies for learning a new word or vocabulary when they encounter in the learning process. It was observed from the study that learners employ memory strategies and they accept the fact, vocabulary learning is a major part of second language learning. In order to achieve the target language vocabulary, learners need a wide array of memory strategies both in storing and retaining the vocabulary. Among the 25 memory strategies, 84 participants responded to “Use the new word in sentences” strategy as the useful memory strategy when compared to other memory strategies. Learners use the learned words in the sentence making process to remember the words. Secondly, 81 participants responded to “Study word with a pictorial representation of its Meaning” as the helpful memory strategy to retrieve the learned words. These pictures create the mind-picture of the particular word settings and it is helpful for the learners to get those words when they require. Thirdly, 80 participants agree to go with “Connect word to a personal experience” as helpful memory strategies in learning and remembering the words for vocabulary acquisition. Learners easily connect the words to personal experiences which have greater impact and it was so realistic to register and remember the words. The diagnosed result shows the learners independent memory strategies and enables them to deal with the unknown vocabulary to learn and retrieve in the learning process. At the same time, learners reported the least frequently used memory strategies which they find it difficult to go with learning vocabulary. Only 40 participants on the whole population of the study reported “Relating word to related items (Loci method)” as least memory strategy to learn and remember the word. Likely, “Use cognates in study” and “Use scales for gradable adjectives” strategies scored the attention of 42 and 43 participants respectively from the 93 respondents. The least frequent scores reported by the participants are because of the lack of awareness and advancement of technological modalities. The less exposure made them unknown the strategies formulated by the language experts.

## CONCLUSION

The major study diagnoses the ESL learners’ vocabulary knowledge through memory strategies they employ to learn new vocabulary. The findings of this study reveal ESL learners’ become independent learners during the process of vocabulary acquisition. ELT practitioners should model the strategies for learners to use it effectively. Strategies must be practiced separately since every technique and strategy is unique in its nature of instruction. Learners should be given direct exposure to practice the effectiveness of vocabulary strategies is the main concern of the revision. Instructors need to recognize the vocabulary learning strategies and then serve as a valuable resource for teaching and learning process. Both learners and teachers are agreeing to receive variety of vocabulary learning strategies to make the vocabulary acquisition more effectual.

## REFERENCES

1. Aravind, B. R., & Rajasekaran, V. (2018). Advanced technological modality to explore ESL learners’ vocabulary knowledge through social strategies. *Journal of Advanced Research in Dynamical and Control Systems*, 10(10), 250-256.
2. Aravind, B. R., & Rajasekaran, V. (2019). Technological modality to influence persuasive and argumentative vocabulary for effective communication with reference to selected TED talk videos. *International Journal of Recent Technology and Engineering*, 7(5), 165-170.
3. Danesi M (2003). *Second language teaching a view from the right side of the brain*. Boston: Kluwer Academic Publishers. <https://doi.org/10.1007/978-94-010-0187-8>
4. Goleman, D. (1986). Mental images: New research helps clarify their role. *New York Times*. August 12.
5. Gu, Y. & Johnson, R.K. (1996) Vocabulary learning strategies and language learning outcomes. *Language Learning*, 46, 643-679. <https://doi.org/10.1111/j.1467-1770.1996.tb01355.x>
6. Hodges, R.E. (1984). *Vocabulary*, Eric Clearinghouse on reading and communication skills, Urbana, IL. National Institute for Education, Washington, DC. (Eric Document Reproduction Service No. ED 250 696).
7. Mokhtar, A. A., Rawian, R. M., Yahaya, M. F., Abdullah, A., Mansor, M., Osman, M. I., . . . Mohamed, A. R. (2010). Vocabulary Knowledge of Adult ESL Learners. *English Language Teaching*, 3(1). <https://doi:10.5539/elt.v3n1p71> [Accessed December 10, 2018]
8. Nayan, S., & Krishnasamy, H. N. (2015). A Preliminary Study on Vocabulary Learning Strategies Used by the Students from the Faculty of Accountancy. *International Journal of Languages, Literature and Linguistics*, 1(1), 10-14. <https://doi:10.7763/ijlll.2015.v1.3> [Accessed February 2, 2019]
9. Oxford, R. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.
10. Ramos, F. D. (2015). Incidental Vocabulary Learning in Second Language Acquisition: A Literature Review. *PROFILE Issues in Teachers Professional Development*, 17(1), 157-166. <https://doi:10.15446/profile.v17n1.43957> [Accessed April 4, 2019]



11. Sanaoui, R. (1995). Adult learners' approaches to learning vocabulary in second languages. *The Modern Language Journal*, 79(1), 15-28. <https://doi:10.1111/j.1540-4781.1995.tb05410.x> [Accessed March 30, 2019]
12. Schmitt, N. and McCarthy, M. (eds.). (1997). *Vocabulary: Description, Acquisition, and Pedagogy*. Cambridge University Press.
13. Shepherd, R. (1984). Elasticizing language techniques in vocabulary development. Paper presented at the annual meeting of The Eastern Regional Conference of the International Reading Association, Baltimore, MD.