



RESEARCH PAPER

The Use of Vocabulary Learning Strategies among Undergraduate Engineering Students: A Case Study

¹Quratulain Talpur, ²Dr. Tariq Hassan Umrani and ³Dr. Sumera Umrani

1. Ph.D. Research Scholar, Institute of English Language and Literature, University of Sindh, Jamshoro, Sindh, Pakistan.
2. Professor, Institute of English Language & Literature, University of Sindh, Jamshoro, Sindh, Pakistan
3. Associate Professor, Institute of English Language & Literature, University of Sindh, Jamshoro, Sindh, Pakistan

***Corresponding Author** | talpur.quratulain@gmail.com

ABSTRACT

The English language is considered the strongest language in the world, and people are attempting to get expertise in this prestigious language (Fatima & Pathan, 2016). Therefore, acquiring proficiency in it demands sound vocabulary knowledge. This study is an attempt to investigate the most and least frequently employed vocabulary learning strategies among undergraduate engineering students of MUET, Shaheed Zulfiqar Ali Bhutto Campus, Khairpur. The sample size was one hundred students enrolled in the first and second years of their study. The data were gathered through a VLSQ adopted from Intaraprasert (2003). The findings revealed that guessing the meaning from clauses was the most frequently employed strategy for vocabulary learning. Whereas, taking an extra job at offices, etc., is the least frequently used VLS to expand their vocabulary knowledge. It is recommended that language instructors should be aware of their students' use of various VLS approaches to make them autonomous.

KEYWORDS Vocabulary Learning Strategies, Undergraduate EFL Learners, English for Specific Purpose

Introduction

Vocabulary or lexical items are often considered the foundation of all languages. It is inconvenient to attain language skills without having mastery of vocabulary. It has an effective role in developing receptive as well as productive skills, besides effective communication and writing skills. For that purpose, learners should obtain a sufficient number of lexical items and must have accurate and efficient knowledge regarding word usage. The various practitioners, like in the vocabulary area, exhibit it as the “heart of communicative competence” (Bastanfar & Hashmi, 2010). It is also believed that “words are the basic building blocks of language, the units of meaning from which larger structures such as sentences, paragraphs, and whole texts are formed” (Read, 2012, p.1). An immense challenge lies with vocabulary acquisition when associated with second or foreign language learning. Decarrico (2001, p. 285) affirms that vocabulary knowledge is essential to competence in a second or foreign language. Additionally, Nation (2001) specifies, “vocabulary learning plays a significant role in a language class program and without sufficient vocabulary as the learning foundation, a learner can hardly become fluent in the target language”. Therefore, the above-mentioned statement of scholars justifies the significance of vocabulary acquisition for second or foreign language learners to acquire the best results in communication competence.

Traditionally, learners do not consider vocabulary as a discrete subject that needs to be learned; instead, it has been taught in combination with four language skills. Language learners also find vocabulary learning the most difficult task because they believe memorization is the only way to attain vocabulary, which they analyze as being an arduous task for them to perform. Many language learners also believe that there are only a few techniques to learn vocabulary, such as making word lists in their native language without real context practice; others may look up a dictionary to establish competence in new word acquisition. However, in reality, the problems all seem to come from language learners' insufficient knowledge about vocabulary learning. Vocabulary acquisition is claimed as the most challenging task that learners deal with while acquiring another language (Nyikos & Fan, 2007). Meanwhile, learners also claim that it is the understanding and learning of lexical items that they feel is the most difficult task for them. Hence, teachers should focus on using effective strategies to make the vocabulary learning process easier for them.

The importance of ESP has been enhanced in this competitive world of immense technological change. Engineering education is also evolving rapidly, due to the changes in engineering practices and the greater mobility of individuals at a global level. It is a fact that the engineering profession has a remarkable effect on the economic and industrial success rate of any nation. Keeping in view the nature of the global workforce, an engineer must have sound knowledge of English; in other words, communication and technical writing skills, including integration of technical expertise. For that purpose, the vocabulary knowledge of engineering students needs to be sufficient for the purposes set.

Qureshi et.al (2023) reviewed the significance of vocabulary in a Pakistani context. He believed that vocabulary learning in an EFL Pakistani setting requires an appropriate execution plan, revised traditional teaching pedagogies, and updated teacher skills who can better teach students new techniques and approaches for vocabulary learning. However, a great deal of exploration has occurred about research VLSs in the last decade with immense profundity. It shows much awareness among language learners of how to carry out vocabulary learning. The foremost benefit of learning vocabulary is that it will make learners more autonomous and allow them "to take more control of their learning and more responsibility, especially for their studies" (Nation, 2001).

To summarize, because of the substantial significance of vocabulary and the part it plays in learning a language, VLSs are considered a significant tool for language learners to find out the new morphological items, storing, retaining, and employing them in language learning (Takac, 2008).

Literature Review

The study of "vocabulary learning strategies" is rooted in two areas of research. The first demonstrates that most of the strategies for language learning are strategies for vocabulary learning, such as "Memory Strategies" in Oxford's (1990) classification, or are sometimes used as part of vocabulary learning. Secondly, VLSs are used in research related to vocabulary learning for exploring the effectiveness of individual learning approaches. The terminology "vocabulary learning strategies" is defined as "any set of techniques or learning behaviors, which language learners reported using to discover the meaning of a new word, to retain the knowledge of newly-learned words, and to expand one's knowledge of vocabulary" (Intaraprasert 2004, p. 54).

Goundar (2016) tested the usage of VLSs by adult EFL learners and the pros and cons of each strategy. A mixed-method design was applied to gather data from the

applicants in the context of Fiji. It was based on two theories-cognitive language learning theory and behaviorist language learning theory. The result disclosed that the majority of EFL learners employ repetition and memorization techniques to learn English vocabulary. About English language anxiety, learners reported being anxious about learning English. Conversely, a few participants claimed not to have any interest in learning vocabulary.

Vocabulary learning in Pakistan has been overlooked, and more focus is on grammar than practical implementation of language use in diverse contexts (Fatima & Pathan, 2016; Kazi & Kalsoom, 2019), and it has various reasons. Parveen et al. (2016) explain that vocabulary teaching and learning is the most neglected area in the second language acquisition (SLA) process of Pakistani public schools. Further, she believes that memorization is the most preferable method for learning vocabulary in the Pakistani context, which reduces the motivation of L2 learners. Whereas, Mansoor (2010) believes that strategies for learning new lexical items have immense reliance on the teachers because students do not make independent efforts for acquiring new lexical meaning. Therefore, the present research study benefits language teachers as well as learners for better understanding and employment of VLSs among EFL learners. Ahmed et.al (2023) explored the strategies for vocabulary development among undergraduate students of two universities in Pakistan. The findings of this study revealed that metacognitive approaches were more frequently employed among the learners of the above two universities. However, teachers' awareness of various vocabulary learning strategies may facilitate the language learners to implement other new approaches to learn new vocabulary.

Khan et.al (2024) studied the significance of vocabulary learning to improve EFL undergraduate learners' speaking skills in the Pakistani context. The result suggests that depth in vocabulary knowledge facilitates attaining fluency and confidence in oral communication. He suggested that there is a need for a shift in teaching mode towards group discussions, note-taking diaries, and feedback-driven activities for supporting learners' communicative competency. Munir et.al (2024) examined the effect of Gender on vocabulary learning strategies and vocabulary achievement scores at the university level in Pakistan. The findings suggest that gender plays an immense role in vocabulary learning and achievement scores, which gives an idea of tailored instructional approaches.

Rashid (2014) is concerned about the practical implementation of memorization strategies for improving vocabulary (MemVLSs) by Pakistani undergraduate university students with Master's degrees in English Literature. The "questionnaire and semi-structured interviews" were utilized for moving forward with the research study. His findings suggested that English language media, literature books, English language magazines/newspapers, using words in sentences, and practicing words in daily conversation are the most influential and effective strategies preferred by Pakistani learners to learn vocabulary. However, listening to words with the assistance of technology like computers, cell phones, and electronic dictionaries, keyword methods, and practicing words aloud were less effective strategies to expand their vocabulary.

Material and Methods

Participants

The present research study explores the usage of strategies for vocabulary learning among the participants of MUET, Shaheed Zulfiqar Ali Bhutto Campus, Khairpur. The total number of participants in this study is one hundred (N=100); out of these hundred students, fifty (50) are male and female. Among those 50 students, 25 are in the first year and the remaining 25 are in the second year of their studies.

Data Collection

To address the research question, the “vocabulary learning strategies questionnaire” adopted from Intaraprasert (2003) is employed in this study. The VLSQ was given to the undergraduate Engineering students. The principal purpose of employing this questionnaire among undergraduate learners was to examine their use of VLSs. The questionnaire pertained to a five-point Likert scale divided into three sections such as 1) “strategies to discover the meaning of new vocabulary items (DMV)”, 2) “strategies to retain the knowledge of newly-learned vocabulary items (RKV)”, and 3) “strategies to expand the knowledge of newly-learned vocabulary items (EKV)”.

Data Analysis

The attained data was examined and inferred by the researcher. SPSS (23.0) was employed to evaluate the data from the questionnaire and establish the most and least frequent levels. The Statistical Package for Social Sciences (SPSS) has been specified as “a package of programs for manipulating, analyzing, and presenting data” (Landau, 2004). In the questionnaire, the questions were “closed-ended,” and they also had background information on the participants. To attain the aim of this study, different statistical methods were used in SPSS to obtain results that include descriptive statistics and frequency of strategy use. The FSU method is most likely to be used to ascertain the pattern of frequent and infrequent use of VLSs among participants of MUET, SZAB Campus, Khairpur. It was defined based on three categories: “high”, “medium”, and “low”, depending on the mean scores.

Results and Discussion

Table 1
Top Five Most Frequently Used VLS Strategies among Undergraduate Engineering Students

Rank	Top Five Most Frequently Used Strategies (DMV, RKV, and EKV)	Mean	Standard Deviation
01	Guess the meaning from word clauses, like nouns, adjectives, to interpret the meaning of words (DMV Category)	3.8500	1.20080
02	Guess the meaning through contextual clues for learning new words (DMV Category)	3.8400	1.26107
03	Use a Sindhi/Urdu-English dictionary to acquire new words' meaning (DMV Category)	3.5200	1.40331
04	Say a single vocabulary item with its meaning repeatedly to retain the knowledge of newly learned vocabulary items (RKV Category)	3.7910	1.09101
05	Practice listening to English lectures, presentations, or conversations to expand the knowledge of vocabulary.	3.45100	.95743

The possible reason behind the *word meaning guess through word clauses, such as nouns, verbs, adjectives, etc.*, can be their exposure to Grammar or English structures that facilitate predicting the functioning of a word's meaning within a sentence. Furthermore, the undergraduate engineering students have a more practical approach to analyzing problems using available data. Therefore, predicting the word meaning through context aligns with their problem-solving and analytical skills approaches. Thirdly, guessing the meaning of newly discovered words helps maintain the flow of reading passages. On the other hand, stopping while reading to look up the dictionary for meaning may interrupt comprehension and demotivate the readers. Hence, finding clues to guess the meaning from technical passages will work best for them.

Table 2
Top Five Least Frequently Used VLS Strategies among Undergraduate Engineering Students

Rank	Top Five Least Frequently Used Strategies (DMV, RKV, and EKV)	Mean	Standard Deviation
01	Part-time jobs at offices, etc., to increase vocabulary knowledge (EKV Category)	2.25	.78012
02	Interaction with Native Speakers helps to increase the word knowledge (EKV Category)	2.29	1.02770
03	Sing English Songs to recall previously learned words (RKV Category)	2.33	1.21325
040	Guess the meaning from aural features, like stress and pronunciation, to learn the new vocabulary items.	2.65	1.53277
05	Associate pictures with words to recall the learned words. (RKV Category)	2.85	.88192

The foremost reason behind the least frequently used strategy, *taking an extra job at the office, hotels, etc., to expand their knowledge about vocabulary*, is the socio-cultural constraints faced by the undergraduate engineering students. Part-time jobs are not common in the Pakistani context, and mostly people discourage them due to their status quo. Secondly, the culture of part-time employment is not well-established yet to facilitate students with jobs. Therefore, without well-structured opportunities, this VLS is the least preferred choice for the students to expand their word knowledge. Thirdly, as undergraduate engineering students are motivated to gain domain-specific knowledge. Hence, they might find working part-time in an office, hotels, etc., irrelevant, or they might perceive it as a distraction from their main purpose (academic studies).

Conclusion

This research study investigated the most and least frequently employed vocabulary learning strategies among undergraduate engineering students. The result highlighted that undergraduate learners rely heavily on the use of direct approaches from the context and grammar categories (nouns, verbs, adjectives, etc) to discover, retain, and expand their knowledge about unfamiliar words. The reason behind the employment of these approaches can be that these strategies require less effort, as such approaches can be applied at runtime while reading technical texts. The findings would help instructors to be aware of their preferences and guide them to be more autonomous in the process of vocabulary learning. Further, the language learners can also benefit from this study, which helps them to know about their approaches towards learning words. This research study can also be a way forward for other researchers, especially in Pakistan, who want to further research on this topic. Meanwhile, this study may help the administrators of the higher educational institutions in Pakistan, especially in Sindh, to design the syllabus of English language courses accordingly.

Recommendations

To strengthen the basic aim of this research study, the researcher has highlighted some recommendations to consider for future research work.

- It is recommended that the teachers teach their students VLSs in a classroom setting so that they will be able to use them effectively and already know the strategies. It is suggested that workshops or seminars may also be arranged for students to get proficiency in this area.
- To get another detailed picture of the use of VLSs among undergraduate students, it is recommended by the researcher that other tools can also be used, such as Diaries, think-

aloud techniques, Classroom Observation, etc. Such an approach will further authenticate the findings.

- Research similar to this can be conducted with a larger targeted group or within different disciplines.

References

- Ahmed, Y., Shah, Z. A., & Sadiq, U. (2023). Exploring Learning Strategies for Vocabulary Development: A Comparative Study of Two Universities of Sindh, Pakistan. *Pakistan Journal of Humanities and Social Sciences*, 11(3), 3449-3457.
- Bastanfar, A., & Hashemi, T. (2010). Vocabulary Learning Strategies and ELT Materials: A Study of the Extent to Which VLS Research Informs Local Coursebooks in Iran. *International Education Studies*, 3(3), 158-166.
- Daud, Z., Kazi, A. S., & Kalsoom, T. (2019). Vocabulary Building through the Read-Aloud Strategy of Primary Level Students in Pakistan. *Pakistan Journal of Distance and Online Learning*, 5(2), 247-264.
- Decarrico, J. S. (2001). Vocabulary learning and teaching. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (3rd Ed.) (pp. 285-299). Boston: Heinle & Heinle.
- Fatima, I., & Pathan, Z. H. (2016). Investigating learning strategies for vocabulary development: A comparative study of two universities in Quetta, Pakistan. *Advances in Language and Literary Studies*, 7(2), 7-12.
- Intaraprasert, C. (2003). EST Students and Classroom—Independent Strategies. *Nakho Ratchasima: Suranaree University of Technology*.
- Intaraprasert, C. (2004). *EST students and vocabulary learning strategies: A preliminary investigation*. Unpublished Research, Suranaree University of Technology, Nakhon Ratchasima, Thailand.
- Khan, A. U. R., & Krishnasamy, H. N. (2024). The Importance of Vocabulary Learning to Improve Speaking Skills among English Language Undergraduates in a Public University in Pakistan. *Pakistan Journal of Life & Social Sciences*, 22(2), 3-5.
- Landau, S., & Everitt, B. (2004). *A handbook of statistical analyses using SPSS* (Vol 1).
- Mansoor, A. (2010). Teaching creative writing to university-level second language learners in Pakistan. *New Writing*, 7(3), 201-218.
- Munir, R., Hayat, H., Ahmad, M. F. H. S., & Tariq, H. (2024). Exploring the Moderating Effect Of Gender on Vocabulary Learning Strategies And Vocabulary Achievement Scores at the Tertiary Level in Pakistan. *Contemporary Journal of Social Science Review*, 2(04), 1081-1089.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University.
- Nyikos, M., & Fan, M. (2007). A review of vocabulary learning strategies: focus on language proficiency and learner voice. In Cohen, A. D., & Macaro, E. (Eds.). (2007). *Language learner strategies: Thirty years of research and practice*. Oxford, UK: Oxford University Press.
- Oxford, R. L. (1990). *What every teacher should know. Language learning strategies*. Boston: Heinle & Heinle.

- Parveen, B. W. (2016). Use of technology in improving speaking skills. *Journal of English language and literature (JOELL)*, 3(2), 121-124.
- Rashid, A. (2014). The Frequency of use and Perceived effectiveness of Memorization Vocabulary Learning Strategies among university students of English Literature as a major in Pakistan. *The Asian EFL Journal Quarterly*, 132. Raton, FL: Chapman & Hall/CRC.
- Read, J. (2012). Assessing vocabulary. *The Cambridge guide to second language assessment*, 257-264.
- Takac, V. P. (2008). *VLSs and foreign language acquisition*. Multilingual matters.