Vocabulary Learning Strategies: A Study of Indian ESL Learners Across Disciplines

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Abstract

Understanding Vocabulary Learning Strategies (VLS) of language learners is pivotal in the field of EFL/ESL research as vocabulary knowledge can directly influence the four language skills of the learner. To this end, this present survey research attempts to examine the various vocabulary strategies employed by Indian learners from four different disciplines: Chemistry, Physics, Mathematics and Management in a national technical institute. This study aims to analyse the use of VLS and draw a contrast between the adoption of the VLS categories by learners across the disciplines. Schmit's taxonomy and SIVL are used to gather data where the participants answered questionnaires and took part in an online survey. Drawing on quantitative analysis by using one-way ANOVA, findings revealed substantial differences in the usage of VLS by students from different disciplines. Memory and Socio-affective strategies showed strongest association with disciplines. This study could be best utilised by curriculum developers and ESL teachers to design materials particular to disciplines for vocabulary acquisition.

Keywords: Vocabulary Learning Strategies; Language Teaching and Learning.

INTRODUCTION

Vocabulary learning is an influential factor in the acquisition of any language as it directly affects all the four language skills: speaking, listening, writing, and reading. When it comes to second language learners, the lack of input and interaction in target language results in a limited vocabulary. This not only hinders the performance, but can also cause anxiety; lack of motivation and self confidence in learners. Appropriate learning strategies have to be employed to overcome the complexities in acquiring second language vocabulary. Second language instructors and researchers consider learning strategies as an important area to concentrate since it accelerates the language learning process.

From the latter half of twentieth century, researchers like Naiman et al. (1978), O'Malley and Chamot (1990), Oxford (1990), Gu and Johnson (1996), etc initiated a new research interest in the field of language learning, particularly in the language learning strategies (LLS). Language learning strategies are certain steps, behaviours, and actions frequently adopted by students to develop their second language skills that can facilitate absorption, internalisation, and retrieval of the target language (Ghani, 2003). Oxford (1995) agreed with Rasekh's (2003) opinion that every successful language learner has an individual way of 'doing language' and defined this way as learners' unconscious use of behaviours and techniques to enhance their second language learning by conceiving, internalising, and producing (Bernardo & Gonzales, 2009).

The application of theoretical frameworks of LLS in vocabulary learning triggered the onset of studies in vocabulary learning strategies (VLS). Gu (2003) considered VLS as techniques which help in gaining more knowledge about words and facilitate learners to use them in future contexts. Exploratory research on VLS established the crucial role of these strategies in language learning followed by their classification into multiple taxonomies. Many scholars have categorised language learning strategies according to various criteria. (O'Malley et al., 1985) categorised them into three: Cognitive

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strategies, metacognitive strategies, and socio affective strategies. Metacognitive strategy includes planning before learning, awareness of learning taking place, observing one's own performance, and evaluation. Cognitive strategies are focussed on specific language learning tasks. Note taking, grouping, contextualisation, repetition are some of the common cognitive strategies in language learning. Socio-affective strategies including collaboration are closely related to social mediating activity and depend on relationships among learners and with facilitators or other adult learners of the society. Oxford (1990) modified and extended the categories of strategies by adding two more, memory- related and compensatory; and by considering social and affective as two different categories. These taxonomies are lists of strategies which can be utilised for preparing questionnaires to collect data on learners' frequency of using VLS.

By considering the significant role of instruction of VLS in the classroom, this study is conducted to understand the VLS categories and variation in frequency of using these strategies by students from four disciplines: Physics, Chemistry, Mathematics, and Management in a national institute of technology. The present study hypothesises that learners from different disciplines differ significantly in using vocabulary learning strategies, and tries to answer the questions below:

- What vocabulary learning strategies are the most or least used by the learners from the selected disciplines?
- How does the use of vocabulary learning strategies vary across the selected disciplines?

METHODOLOGY

Participants

68 students from departments of Physics, Chemistry, Mathematics, and Management in the National Institute of Technology, Warangal were selected for the study. 19 students from Physics, 17 from Chemistry, 15 from Mathematics were enrolled for the Communicative English course and 17 from Management for Business Communication. All of them were informed about the objective of the study and ensured that their participation does not have any association with their academic evaluation. All participation was voluntary and students were asked to respond honestly as their response could affect the study.

Instruments

The present study adopted a descriptive survey method by using Strategies Inventory for Vocabulary Learning (SIVL) developed by Xeulian Xu and Wen - Cheng Hsu (2017) for their study titled "A New Inventory of Vocabulary Learning Strategy for Chinese tertiary EFL Learners". The questionnaire contained 72 vocabulary learning strategies grouped under the categories of Metacognitive (MET), Cognitive (COG), Memory (MEM), and Socio-affective (SOC). It was slightly shortened to 60 vocabulary learning strategies for convenience and required the students to respond how frequently they used each strategy. The students marked their responses on a five-point Likert scale with the options for answers as never (1), seldom (2), occasionally (3), often (4), and always (5). It took the students 15 minutes to complete the questionnaire.

Procedure

This exploratory study used a questionnaire for the survey to collect data on the category and frequency of the usage of VLS by students from the selected disciplines. Data collection started by explaining the concept of VLS to students. Even though a google form was used to collect the response, each strategy was explained clearly to avoid misunderstanding. Some students responded within 10 minutes when some needed individual help to understand the statements. The researcher along with two language instructors were there in the classroom to ensure complete participation and to assist students responding to the questions.

RESULTS

Figure 1 summarises the overall use of VLS by the selected four disciplines: Physics, Chemistry, Mathematics, and Management. The data shows Metacognitive as the most used strategy and Memory as the least by all the disciplines. In the Metacognitive category "I look up words that I am interested in" strategy is the most used one and "I plan my schedule so I will have enough time to study English words" is the least used one. Cognitive stands second after Metacognitive in the overall use. "I make use of my common sense and knowledge of the word when guessing the meaning of the word" is the most used in the category, and "I take a note when I find the meaning of a word" is the least used. Socio-affective is the third most used category in which

"I enjoy learning new vocabulary" stands as the most used strategy and "I ask teacher or other for paraphrases or synonyms of a new word" shows the least use. Under the overall least used category of Memory, "I create a sentence in my mother tongue when I link a new word to a known word" is the most used and "I learn the word of an idiom together" is the least used.

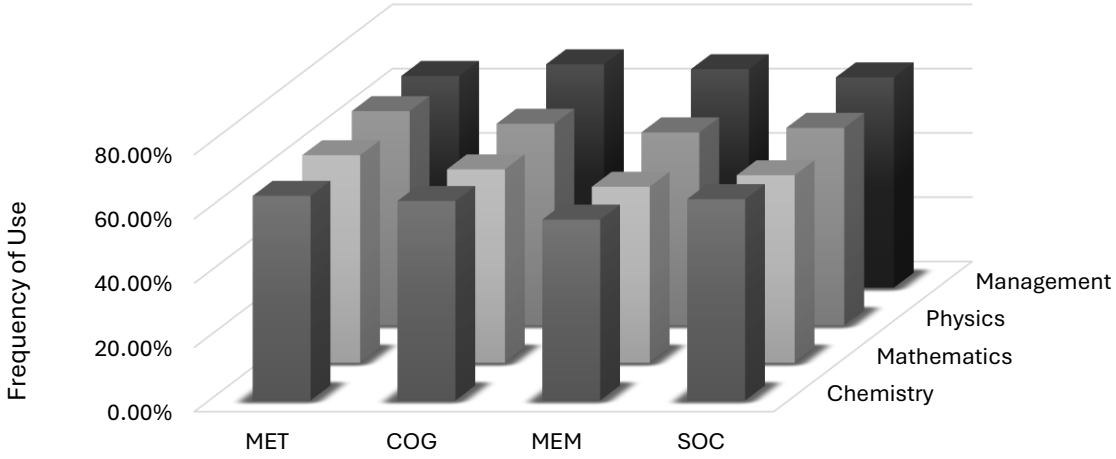

Fig. 1: *Overall Use of VLS Strategies by the Four Disciplines*

Table 1: *Summary of Learners' VLS Use across Disciplines*

Strategy	Discipline	SD	F	η2
Metacognitive (MET)	Physics	1.33	5.94	0.3104
	Chemistry	1.51		
	Mathematics	1.41		
	Management	0.5404		
Cognitive (COG)	Physics	1.61	7.89	0.2904
	Chemistry	1.43		
	Mathematics	1.47		
	Management	0.4380		
Memory (MEM)	Physics	1.28	11.85	0.3935
	Chemistry	1.16		
	Mathematics	1.29		
	Management	0.3887		
Socio-affective (SOC)	Physics	1.46	3.45	0.3616
	Chemistry	1.91		
	Mathematics	1.34		
	Management	0.5350		

The strategy priority of Physics is in the order: Metacognitive 67% (1st), Cognitive 63% (2nd), Socio-affective 61% (3rd), and Memory 60% (4th). The order is Metacognitive 64% (1st), Socio-affective 63% (2nd), Cognitive 62% (3rd), and Memory 56% (4th) for Chemistry. Mathematics has the priority in Metacognitive 65% (1st), Cognitive 60% (2nd), Socio-affective 58% (3rd), and Memory 55% (4th) order. Management prioritised strategies in the order of Cognitive 69% (1st), Memory 68% (2nd), Metacognitive 66% (3rd), and Socio-affective 65% (4th).

One-way Analysis of Variance (ANOVA) is used to establish that there exists a significant difference in the usage of VLS by the learners across disciplines. F values (Table 1.) generated are 5.94 for Metacognitive, 7.89 for Cognitive, 11.85 for Memory, and 3.45 for Socio-affective. It shows there exists statistically significant differences in the learners' use of every VLS. Use of Memory strategies exhibit the most significant difference while Socio-affective the least. Still, the significant differences in all VLS categories are indicative of the fact that the frequency of the use of strategies across disciplines are varied.

Eta squared (η2) of 0.39 indicates strong association between Memory strategies and the disciplines. Socio-affective also shows strong

association with disciplines (η2 = 0.36). Hence both these categories of VLS can be considered as efficient strategies for vocabulary learning in the disciplines.

DISCUSSION

Even though there are many factors involved in the process of teaching of a language that needs attention, the importance of teaching different strategies to learners considering their unfamiliarity to them should not be overlooked (Ghalebi et al., 2021). This study investigated the categories and the frequency of use of VLS categories across 4 disciplines. It is found that learners from each discipline vary in their usage of VLS categories. This can be understood as the learners' choice of specific strategies according to their discipline and learning context. That is why the learners from one discipline employ strategies which are distinct from another discipline. Considering this fact, language instructors and curriculum developers should understand the importance of choice of VLS by learners since it exposes learners to a broad range of vocabulary.

The overall use of VLS by learners indicated the least use of Memory strategies. More motivation and exposure should be given to learners to know about this strategy and how to effectively use it in enhancing vocabulary. At the same time, Memory and Cognitive showed strong association with disciplines. Hence, they can be explored more to design discipline specific language lessons and tasks.

This study also highlights the need for awareness of VLS and its varied frequency of use across disciplines to understand a learner's strengths and weaknesses in applying them in necessary linguistic situations.

CONCLUSION

A kind of investigation like this on learners' VLS preference should be carried out in every classroom as a part of analysing language learners' learning pattern. This may aid in evaluating learner's progress across a language course period apart from the learning outcomes. It will also help learners to minimise the study time and effectively use the time according to their strategy preferences. Using inventories like SIVL in different language learning contexts leads to learners' ability to independently observe and evaluate their own language performance.

This study has been carried out with the sole aim of describing the selected learners' VLS use. The sample size is also not big enough to generalise conclusions for a large population. Observations and conclusions deducted can only be practised on the same sample for desired learning outcomes.

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