The Role of vocabulary Learning Strategies on Vocabulary Retention and on Language Proficiency in Iranian EFL Students

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Abstract

The assnmption of the present research is that Vocabnlary learning strategies affects Vocabulary retention and the language proficiency of the Iranian EFL students.

To investigate the issue, two research questions on "relationship between vocabulary learning strategies and word retention," and "vocabulary learning strategies and development of general language proficiency" have been addressed, and through an experimental nesearch, it was proved that quite a good number of prevalent strategies benefit vocabulary retention and help students English proficiency. Some other strategies, however, such as repetition and rote learning of new words had negative correlation with both vocabulary retention and general English proficiency.

Introduction

Second language teaching in recent years has moved away from the search for the permissible teaching method, focusing instead on how

successful teachers and learners actually achieve their goals. In the case of teachers, this has led to classroom centred research on the linguistic, discoursal, and interactional structure of teaching events. In the case of learners, it has led to the study of how learners approach learning, both in and out of classrooms, and the kinds of strategies and cognitive processing they use in foreign language learning. A great number of studies have been done on vocabulary learning - strategies exploring various methods of vocabulary presentation and their corresponding effectiveness in retention. As a result, memory strategies which are mostly studied are one of the many aspects of vocabulary learning-strategies. They believed that strategies which are good for vocabulary retention will also benefit language learning in general.

This study focused on finding out what kind of strategies are mostly used by Iranian EFL students in learning new English words and whether these strategies help them retain vocabulary and develop their general L2 proficiency. The significance of the present study is that it shows what strategies benefit vocabulary retention and help students' English proficiency. In other words, it examines a wide range of vocabulary learning beliefs and strategies in relation to both vocabulary size and general English proficiency. Previous studies have shown that students use different strategies in learning vocabulary, but few of these strategies have proved to be helpful.

The areas of investigation in the existing study are as follows:

1. What kind of vocabulary learning strategies are mostly used by Iranian EFL students?

2. Do the strategies used by students help them in retaining vocabulary?

3. Do the strategies used by students for retaining vocabulary develop their general language proficiency?

In order to be on the safe side, two null hypotheses have been proposed for this study:

H0 (1) There is no relationship between vocabulary learning strategies used by Iranian EFL learning and their word power.

H0 (2) There is no relationship between vocabulary learning strategies used by Iranian EFL learners and their language proficiency.

Background

The word "vocaulary" has long connoted word lists, and "vocabulary learning strategies" have been tantamount to techniques that help commit these lists to memory (Gu and Johnson, 1996). Most research on vocabulary learning strategies has, therefore, explored various methods of vocabulary presentation and their corresponding effectiveness in retention (Meara, 1980). Hense, studies on memory strategies-one of the many aspects of vocabulary learning strategies are based on the presupposition that strategies good for vocabulary retention will also benefit language learning in general.

Some earlier research has focused on rehearsal strategies and addressed questions such as the number of repetitions needed to learn a list, the optimum number of words to be learned at one time, or the timing of repetions. Overall, rote repelition appears less efficient than using spaced-recall and structured reviews; silent repetition and silent writing are less effective than repeating the words aloud (Gershman, 1970).

Research into mnemonics has continued through the past two

decades, following Atkinson (1975) and Atkinson and Raugh (1975). The bulk of such interest has centred on the key-word method, a technique that starts with an acoustic link that links the key-word and the foreign word by means of an interactive image. Despite evidence showing its superiority over any other strategies, the key-word method or any other mnemonic technique) suffers from its fundamental assumption that vocabulary learning largely means list learning. As Meara (1980) pointed out, these laboratory experiments completely ignore the complex patterns of mearning relationships that characterize a proper, fully fromed lexicon.

Consequently, even if these memory crutches do not interfere with retrieval and production, they are unlikely to play a major role in the development of a dynamic living lexicon in the target language.

Development in lexical semantics and studies on the mental lexicon from a different and more recent focus on vocabulary learning. The focus is mostly on componential analysis and the "paradigmatic versus syntagmatic" conceptions of the semantic field, semantic network/map, or semantic grid strategies, which present and organize new words in terms of maps or grids of interrelated meanings (Channell, 1998). These semantically- based strategies, though intuitively appealing, tend to be prescriptive. Although some empirical evidence does suggest their effectiveness (e.g. Crow & Quigley, 1985), other studies have warned of presenting closely related new words at the same time (Tinkham, 1993). Researchers have little idea whether these strategies make vocabulary retention easier, let alone how much they help develop the active use of vocabulary thus learned.

Most previous research either ignores or overlooks one of the crucial

characteristics of second language (L2) learners that makes them fundamentally different from mother-tongue (L1) learners of vocabulary: most Begining L2 learners do not need concept fromation but threshold-level L2 skill, without which the simple retention of word lists is meaningless.

Research on vocabulary learning through reading has dealt with this issue (e.g., Huckin, 1993). Research now has extensively demonstrated that vocabulary can be acquired through reading or any "fully contextualized activities", to use Oxford and Scarcella's (1994) term. Furthermore, vocabulary words which are acquired in this way retain not just their referential meaning but also the syntactic, and even emotional information from their context. Moreover, vocabulary is no longer thought of as acquired as separate items; it is an intergral part of discourse and is developed along with reading strategies such as contextual guessing. As a result, researchers need to remember two pionts when examining this line of research. First, vocabulary acquisition through reading presumes a basic reading ability in the L2, a skill begining learners possess only to a limited extent. Learning to read an L2 with totally different orthography seriously challenges not just the development of reading ability but also vocabulary learning through reading. Second, instruction should not overemphasize the incidental/indirect, or even subliminal acquisition of vocabulary (not necessarily in lists) that has proved so effective among good EFL learners in "input-poor environments" (Kurago,1993), where learners unluckily have insufficient reading materials at their disposal. These vocabulary learning strategies might add to the acquisition of vocabulary through extensive reading; they should lead to increased retention of

that new vocabulary and increased availability of those items for active use.

Methodology

The subjects who participated in this study were 104 senior students majoring in English literature and English translation at Allameh Tabatabaee and Shahid Beheshti universities. Materials used in testing them were as follows:

(A) Questionnaire: A vocabulary learning questionnaire (see the Appendix) was used to elicit students' beliefs about vocabulary learning and their self-reported vocabulary learning strategies. It included two sections. Section 1: Beliefs about vocabulary learning which comprised 17 statements representing 3 dimensions of beliefs. Section 2: vocabulary learning strategies which contained 91 vocabulary learning behaviours divided into two major parts: Metacognitive Regulation and Cognitive Srtategies.

(B) Vocabulary size test & proficiency measures: The vocabulary section of a standardized TOEFL test was used to determine the participants' word power. In order to test their overall English proficincy, a standardized Michigan test was also administered.

Descriptive statistics were first obtained to see the overall patterns of vocabulary learning strategies used by the students. For the first null hypothesis, correlation analyses were performed between the independent variable and the dependent variable to see how various strategies related to vocabulary size and general proficiency. Vocabulary learning strategies were cosidered to be independent variables and the tests of vocabulary size and English proficiency were dependent

variables. In order to test the second null hypothesis and identify the best predictors from all variables, multiple regression was done on the two dependent variables.

Results

To answer the first problem, descriptive statistics on each category of beliefs and strategies held and used by Iranian EFL learners were obtained which are presented in Table1. (See the Appendix for elaboration on the terms). By looking at the 3 types of beliefs, we come to the conclusion that students generally believed in learning and using vocabulary items. They also believed that words could be acquired in context, whereas the least emphasis was on memorization. In the category of metacognitive regulation, both selective atention and self-initiation ranked high. On the whole, we can claim that students did not favor memorization and responded negatively to rote memorization strategies. The participants did not tend to use mnemonic devices which are valued by some psychologists. The strategies which were frequently used generally centred on guessing, dictionary work, and note-taking.

Table 1:
Strategies used by Iranian EFL students

Categories and Strategies	M	SD
Beliefs		
Word Should Be Memorized	3.01	0.86
Acquire Vocabulary in Context	4.58	0.72
Learn Vocabulary & Put It to Use	5.68	0.59
Metacognitive Regulation		
Selective Attention	3.69	0.82
Self-Initiation	4.55	0.95
Guessing Strategies		
Wider Context	4.63	0.83
Immediate Context	4.50	0.80
Dictionary Strategies		
Comprehension	4.88	0.98
Extended Dictionary Strategies	4.50	0.80
Looking-up Strategies	4.35	0.93
Note-Taking Strategies		
Meaning-Oriented Note-Taking	4.10	1.01
Usage-Oriented Note-Taking	4.26	1.15
Rehearsal Strategies		
Using Word Lists	3.49	0.91
Oral Repetition	4.25	0.98
Visual Repetition	4.03	1.16
Encoding Strategies		
Association/Elaboration	3.55	0.95
Imagery	3.06	0.98
Visual Encoding	3.89	1.09
Auditory Encoding	3.53	1.12
Using Word-Structure	3.74	1.10
Semantic Encoding	3.73	1.42
Contextual Enconding	4.08	1.35
Activation Strategies	**3.55**	**0.92**

In order to answer the second problem of the study, simple correlations were obtained among 24 independent variables: (3 belief variables, 2 metacognitive regulation variables, 18 cognitive strategy variables covering the whole process of vocabulary learning and a time variable representing extracurricular time spent weekly on English learning) and the 2 dependent variables (English proficiency and vocabulary size) (see Table 2).

Table 2:
Correlations among 24 Independent Variables and 2 Dependent Variables[2]

	Memorize	Acquire	Learn	Attend
Proficiency	-0.20	0.07	0.08	0.22
Vocsize	-0.11	0.10	0.07	0.21

	Selfini	Widecue	Loccue	Dicompr
Proficiency	0.31	0.21	0.20	0.10
Vocsize	0.33	0.19	0.19	0.07

	Dicextn	Diclook	Notemg	Noteuse
Proficiency	0.25	0.24	0.17	0.17
Vocsize	0.20	0.25	0.20	0.19

	Voclist	Oralrep	Visrep	Associa
Proficiency	0.07	0.15	-0.22	0.11
Vocsize	0.14	0.07	-0.23	0.15

2- Memoriz = Memorize word; Acquire = Acquire words in context; Learn = study and put words to use; Attend = selective attention; Selfini = self-initiation; Widecue = wider context; Lococue = Immediate context; dicompr = Dictionary strategies for comprehension; Dicetxn = Extended dictionary strategies; Diclook = looking-up strategies; Notemng = Mearing-oriented note-taking strategies; Noteuse:Usage-oriented note-taking strategies; voclist = Use word lists; Oralrep = Oral repetition; Visurep = Visual repetition; Associa = association elaboration; Visucod = Visual encoding; Audicod = Auditory encoding; Wdform = Use word-structure; Semanet = Semantic encoding; Context = Contextual encoding; Activat = Activation strategies.

	Imagery	Visucod	Audicod	Wdform
Proficiency	-0.03	0.04	0.02	0.12
Vocsize	0.04	0.01	0.06	0.15

	Semanet	Context	Activat	Time
Proficiency	0.10	0.25	0.16	0.09
Vocsize	0.24	0.20	0.29	0.14

As Table 2 suggests, believing in memorization was negatively correlated with both proficiency and vocabulary size. Visual repetiton also was negatively correlated with the two dependent variables. The two metacognitive regulation variables, as were the two guessing variables and the two note-taking variables, Among the three dictionary variables, only looking up words for comprehension did not reveal a significant correlation. Mnemonic devices were related more to vocabulary size; their correlation with general English proficiency was mostly insignificant or even negative. Semantic encoding strategies and word-list learning correlated highly with vocabulary size, but not with general English proficiency. Contextual encoding on the other hand, correlated significantly with both dependent variables.

To answer the third problem of the study, multiple regression analyses were performed. 24 independent variables in 9 blocks were entered in an order roughly characterizing a normal vocabulary learning process (Tables 3 & 4). Some variables predicted proficiency significantly (Table 3). Both self-initation and selective attention, the

Table 3:
Multiple Regression Predictors of Proficiency

Blocks	Step	Variable Entered	Beta	t	P	R^2 Change
Block 1	1	Learn	-.05	-0.94	.94	.04
	2	Memoriz	-0.7	-2.05	.05	
	3	Acquire	.01	0.24	.78	
Block 2	4	Attend	.18	3.38	.02	.09
	5	Selfini	.16	3.25	.02	
Block 3	6	Lococue	-.10	-1.65	.08	.00
	7	Widecue	.08	1.25	.22	
Block 4	8	Dicompre	-.03	-.25	.75	.01
	9	Diclook	.07	1.38	.12	
	10	Dicextn	.07	1.08	.25	
Block 5	11	Noteuse	-.06	-.06	.45	.03
	12	Notemng	-.02	-.25	.75	
Block 6	13	Visurep	-.16	-4.45	.02	.02
	14	Oralrep	.13	2.85	.02	
	15	Voclist	.00	.01	.99	
Block 7	16	Imagery	-.12	-3.05	.02	.04
	17	Audicod	-0.7	-1.78	.07	
	18	Wdform	-.06	-1.19	.23	
	19	Visucod .	.04	.55	.52	
	20	Context	.19	3.35	.04	
	21	Semanet	.08	1.43	.17	
	22	Associa	.04	.88	.35	
Block 8	23	Activat	-.08	-1.40	.15	.00
Block 9	24	Time	.06	1.22	.23	.00

two metacognitive regulation variables, turned out to predict overall proficiency in EFL students.

Contextual encoding and oral repetition were also significant positive predictors. Visual repetition, imagery mnemonics and memorization, on

the other hand, were significant negative predictors of overall proficiency. The same independent variables were subjected to a multiple regression analysis against vocabulary size as the dependent variable (Table 4).

Table 4:
Multiple Regression Predictors of Vocsize

Blocks	Step	Variable Entered	Beta	t	P	R^2 Change
Block 1	1	Learn	-.03	0.12	.87	.03
	2	Memoriz	.03	.54	.55	
	3	Acquire	.04	1.12	.28	
Block 2	4	Attend	.07	1.60	.07	.09
	5	Selfini	.14	3.25	.00	
Block 3	6	Lococue	-.04	-1.67	.52	.00
	7	Widecue	-.03	-0.40	.65	
Block 4	8	Dicompre	.02	0.55	.54	.03
	9	Diclook	.15	2.70	.03	
	10	Dicextn	-.04	-.85	.33	
Block 5	11	Noteuse	-.09	-1.38	.15	.01
	12	Notemng	.06	1.11	.23	
Block 6	13	Visurep	-.15	-4.02	.00	.02
	14	Oralrep	.05	0.33	.76	
	15	Voclist	.02	0.77	.37	
Block 7	16	Imagery	-.10	-2.45	.05	.01
	17	Audicod	-.05	-1.15	.23	
	18	Wdform	-.04	-1.13	.24	
	19	Visucod	.07	-1.45	.15	
	20	context	.09	1.07	.23	
	21	Semanet	.13	1.88	.02	
	22	Associa	.12	1.73	.10	
Block 8	23	Activat	.15	2.35	.03	.01
Block 9	24	Time	.011	2.51	.01	.01

Self-initiation again emerged as the best predictor, followed by dictionary looking-up strategies, extracurricular time spent on English, and intentional activation of new words learned. Semantic encoding also seemed to play a role in predicting vocabulary size, visual repetition and imagery encoding again were strong negative predictors.

Pedagogical implications

With regard to the results obtained in this study, we can claim that both EFL teachers and learners should be aware that vocabulary knowledge must be actually used in communication and be integrated into discourse, in this case the learning is nealized. Therefore, a large part of EFL vocabulary involves skill learning. Pure retention of decontextualized words without an L2 skill is not significant, no matter what strategies learners use to achieve this purpose. Learners should use memory strategies that aim for retaining both a word and its meaning and should complement them with other fully contextualized strategies.

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Appendix

a. Beliefs about vocabulary learning

1. Words should be memorized

Once the English equivalents of all Farsi words have been remembered, English is learned.

The best way to remember words is to memorize word lists or to use dictionaries.

Remebering the meanings of a word is an end in itself.

English words have fixed meanings.

It is only necessary to remember one dictionary definition.

A good memory is all you need to learn a foreign language well.

Repetition is the best way to remember words.

You can only acquire a lagre vocabulary by memory of individual

words.

2. Words should be acquired in context: bottom-up

The meanings of a considerable amount of words can be picked up through reading.

One can expand his vocabulary simply through reading a lot.

Guessing words in context is one of the best ways to learn vocabulary.

When you come across a word several times in different contexts, you will know what it means.

3. Words should be studied and put to use: top-down

One should pay attention to set phrases and collocations that go with a word.

Words studied should be put to use before they are finally learned.

Using the language (listening, speaking, reading, and writing) is more important than memorizing words.

The least a learner should know about a word is its form, its meaning, and its basic usage.

Words are learned after you use them.

b. Metacognitive Regulation.

1. Selective attention

I know when a new word or phrase is essential for adequate comprehension of a passage.

I know which words are important for me to learn.

I have a sense of which word I can guess and which word I can't.

I look up words that I'm interested in.

When I meet a new word or phrase, I have a clear sense of

whether I need to remember it.

I know what cues I should use in guessing the meaning of a particular word.

I make a note of words that seem important to me.

2. Self-initiation.

Besides textbooks, I look for other reading that fall under my interest.

I wouldn't learn what my English teacher doesn't tell us to learn.

I only focus on things that are directly related to examinations.

I wouldn't care much about vocabulary items that my teacher does not explain in class.

I use various means to make clear vocabulary items that I am not quite clear of.

c. *Guessing Strategies.*

1. Using background knowledge/wider contexts.

I use alternative cues and try again if I fail to guess the meaning of a word.

I make use of the logical development in the context (e.g. cause and effect) when guessing the meaning of a word.

I check my guessed meaning against the wider context to see if it fits in.

I make use of my common sense and knowledge of the world when guessing the meaning of a word.

I make use of my knowledge of the topic when guessing the meaning of a word.

I look for other words or expressions in the passage that support my guess about the meaning of a word.

I look for any definitions or paraphrases in the passage that support my guess about the meaning of a word.

2. Using linguistic cues/immediate context

I make use of the grammatical structure of a sentence when guessing the meaning of a new word.

I look for any examples provided in the context when guessing the meaning of a new word.

I make use of the part of speech of a new word when guessing its meaning.

I check my guessed meaning against the immediate context to see if it fits in.

I analyse the word structure (prefix, root, and suffix) when guessing the meaning of a word.

d. Dictionary Strategies.

1. Dictionary strategies for comprehension.

When I see an unfamiliar word again and again, I look it up.

When I want to confirm my guess about a word, I look it up.

When not knowing a word prevents me from understanding a whole sentence or even a whole paragraph, I look it up.

I look up words that are crucial to the understanding of the sentence or paragraph in which it appears.

2. Extended dictionary strategies

I pay attention to the examples of use when I look up a word in a dictionary.

I look for phrases or set expressions that go with the word I look up.

I consult a dictionary to find out about the subtle differences in

the meanings of English words.

When I want to know more about a word that I already have some knowlege of, I look it up.

When I don't know the usage of a word I already have some knowledge of, I look it up.

I make a note when I want to help myself distinguish between the meaning of two or more words.

When looking up a word in the dictionary, I read sample sentences illustrating various meanings of the word.

When I get interested in another new word in the definitions of the word I look up, I look up this word as well.

3. Looking-up strategies

If the new word is inflected, I remove the inflections to recover the form to look up.

If the new word I try to look up seems to have a prefix or suffix, I will try the entry for the stem.

If the unknown appears to be an irregularly inflected form or a spelling variant, I will scan nearby entries.

If there are multiple senses or homographic entries, I use various information (e.g., part of speech, pronunciation, etc) to reduce them by elimination.

I try to integrate dictionary definitions into the context where the unknown was met and arrive at a contextual meaning by adjusting for complementation and collocation, part of speech, and breadth of meaning.

e. Note-Taking Strategies

1. Meaning-oriented note-taking strategies

I make note of the meaning of a new word when I think the word I'm looking up is commonly used.

I make a note when I think the word I'm looking up is relevant to my personal interest.

I put synonyms or antonyms together in my notebook.

I write down the English synonyms or explanations of the word I look up.

I write down both the Persian equivalent and the English synonyms of the word I look up.

2. Usage-oriented note-taking strategies

I make a note when I see a useful expression or phrase.

I take down the collocations of the word I look up.

I take down grammatical information about a word when I look it up.

I note down examples showing the usage of the word I look up.

f. Memory Strategies: Rehearsal

1. Using word lists

I make vocabulary lists of new words that I meet.

I write the new words on one side of a card and their explanation on the other side.

I keep the vocabulary lists of new words that I make.

I go through my vocabulary list several times until I am sure that I do not have any words on that list that I still don't understand.

I make vocabulary cards and take them with me wherever I go.

I make regular and structured reviews of new words I have memorized.

2. Oral repetition

When I try to remember a word, I repeat it aloud to myself.

Repeating the sound of a new word to myself would be enough for me to remember a word, I repeat its pronunciation in my mind.

3. Visual repetition

When I try to remember a word, I write it repeatedly.

I memorize the spelling of a word letter by letter.

I write both the new words and their Persian equivalents repeatedly in order to remember them.

g. Memory Strategies: Encoding

1. Association/elaboration

I remember a group of new words that share a similar part in spelling.

I associate a group of new word that looks or sounds similar to the shared part.

I create a sentence in Persian when I link a new word to a known word.

I attach physical sensations to certain words (e.g., stinging) when I try to remember them.

2. Imagery

I act out a word in order to remember it better.

I create a mental image of the new word to help me remember it.

I associate one or more letters in a word with the word meaning to help me remember it ('look' has two eyes in the middle).

I create mental images of association when I link a new word to a known word.

3. Visual encoding

I visualize the new word to help me remember it.

I associate a new word to a known English word that looks similar.

I remember the spelling of a word by breaking it into several visual parts.

4. Auditory encoding

I remember together words that sound similar.

I remember together words that are spelled similarly.

I associate a new word with a known English word that sounds similar.

5. Word-structure

I analyze words in terms of prefixes, stems, and suffixes.

I deliberately study word-fromation rules in order to remember more words.

I memorize the commonly used stems and prefixes.

6. Semantic encoding

I try to create semantic networks in my mind and remember words in meaningful groups.

When I meet a new word, I search in my memory and see if I have any synonyms and antonyms in my vocabulary stock.

I group words into categories.

7. Contextual encoding

When I try to remember a word, I remember the sentences in which the word is used.

I deliberately read books in my areas of interest so that I can find out and remember the special terminology that I know in Persian.

I remember the new word together with the context where the new word occurs.

I learn words better when I put them in contexts.