



Acquisition of second language vocabulary through Reading by making use of Incidental and Intentional learning techniques: A case of Iranian advanced EFL students

Seyyed Ali Kazemi* and Maryam Majidi

Department of ELT, Science and Research Branch, Islamic Azad University, Yasuj, Iran.

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ABSTRACT

It is obvious that learning new vocabularies in the process of acquiring a second language has always been significant. First and best medium in every language is vocabulary. No connection is possible without knowing the words. Using words means connection. Without using vocabularies and knowing their meanings, speaking is worthless and meaningless. Acquisition of new words is of various procedures. Some learn new words through speaking and some learn by reading. In second language teaching and learning vocabulary through reading, there are two instructional techniques: incidental learning and intentional learning. This case study explores the role of reading in S2 vocabulary acquisition, and the effect of different vocabulary instructional techniques on the vocabulary learning of Iranian advanced EFL students who learn English in English institutes. The results of the study produce the following findings: 1) Both instructional treatments result in significant gains in learners' receptive vocabulary knowledge, but the combination of the incidental and intentional learning instruction leads to greater vocabulary gains and better retention. 2) Students' vocabulary size plays a decisive role in acquiring the productive aspect of the vocabulary knowledge.

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Introduction

In the world of learning foreign languages, some aspects are more glamorous than the other ones. Vocabulary and grammar are among the spheres catches the most attention of scholars and teachers. Put grammar aside, vocabulary is an area many researches explained it. Some scholars in the field of language learning believe that becoming aware of the vocabularies of a language is exactly equal to learning the whole language. Acquiring words needs a grave amount of study. Vocabulary is somehow a creepy thing. You learn the word in a second, but soon afterwards, it is all gone. In the process of teaching and learning vocabulary, there are two types of vocabulary learning: incidental learning and intentional learning. Intentional learning put its emphasis on vocabulary itself, and sometimes, combines with all kinds of conscious vocabulary learning strategies and methods of memorizing words. The sense of a word, meaning symbolizing and relations between words need intentional learning (Nation, 1990). It is said that this type of vocabulary learning will be designed in advance by teachers or students. In contrast, incidental learning of vocabulary is the byproduct of doing or learning something else. This technique always means the approach of learning vocabulary through texts, working on tasks or doing other activities that are not directly related to vocabulary. Vocabulary in context often appears repeatedly under different aspects and hence engrains in the learners' minds. Debates regarding the priority of learning vocabulary through one of these methods were always in the shelves of language market. Some believe just utilizing one of them is not effective and results in improper acquisition of a second language. Focusing on incidental learning alone is not sufficient (Nation, 1990). To expand the amount of vocabulary in mind, however, many researches point to the ineffectiveness of merely

applying incidental vocabulary instruction and there is a huge need to accompany it with intentional learning. Sometimes, being aware of the peculiar usage of a word in a context is absolutely vital. It is important to stress that intentional vocabulary learning is only effective when being connected directly to the selected texts students read. That is, the words targeted for teaching must relate to the important topics or concepts students possess (Tierney & Pearson, 1994). Generally, learning vocabulary by means of one of these approaches requires much attention, because if the teacher concentrates on one aspect, then the final result can be deficient. It is worth mentioning the most important issue in applying these two techniques is the method in which they are performed. In the course of learning new vocabularies through reading, the teacher or student should be totally aware of benefits and shortages of different technique to choose the best way. In the present study, two techniques for learning new vocabularies are under consideration, i.e. incidental and intentional learning through reading. Each technique has its own principles, so each of them will be explored by all aspects.

Research Questions

- 1- Which instructional technique facilitates the learning of receptive aspect of vocabulary knowledge, incidental learning or the combination of incidental learning and intentional learning? Which instrumental technique results in better retention?
- 2- Which instructional technique facilitates the learning of productive aspect of vocabulary knowledge, incidental learning or the combination of incidental learning and intentional learning?
- 3- Is vocabulary size a predictor of the receptive and productive vocabulary gain?

Review of literature

The sphere of learning the vocabularies of another language was always under attention of researchers. Knowing how words are used in a foreign language can build the foundation of learning that language. Many studies have been done in this domain to show which strategy can best meet the requirements of the learners. Researches done in this domain indicate that for a better understanding of the communication of peoples in different languages, it is necessary to be completely knowledgeable about the meaning of their own vocabulary. It is believed that most of vocabulary is learned gradually through repeated exposure to new and known words in various contexts. Many studies emphasized on the advantages and disadvantages of both incidental and intentional vocabulary techniques. Nation (2005) suggests that it is important to “balance deliberate learning with message-focused learning so that you can get the best of the two approaches”. In the early stages of language learning, intentional vocabulary learning may be more important, but as competency increases, there may be greater reliance on incidental vocabulary learning (Eliss, 1996). Numerous studies have shown the value of intentional, instruction on both immediate word learning and on reading comprehension (e.g. Biemiller, 2004; Marzano, 2004). Some scholar confess that intentional approach benefits all students, especially older students who have failed to develop the decoding and comprehension skills necessary for extensive, independent reading (National Reading Panel, 2000). There have been numerous investigations to support this belief that vocabulary is learned incidentally through reading. Some researches done by Meister (1978), Jenkins (1984) and etc. all have proved that incidental vocabulary learning would be the main technique of learning new words in the course of acquiring a new language. Laufer (2001) distinguished two types of incidental vocabulary learning. The first one is used in the experimental literature and the other one is manipulated mostly in general, educational areas. Coady (1997) proposed that in incidental learning, most words were learned gradually through repeated exposures in various discourse contexts. Inferring word meaning does not necessarily result in long-term retention. Even if a student has enough vocabulary and is exposed to contexts that are rich with clues, acquisition does not automatically result at the first time. As many linguists put it, acquiring the vocabulary incidentally through reading may face with some limitations. Nation (1990) argues that successful guessing in context occurs when about 95% of the lexical items in a text are already known. It can be said that in many researches done regarding learning vocabulary, the authors believed that no alone approach could be effective in acquiring the meaning of words and also the correct place of applying them.

Methodology

Subjects

There are altogether 50 subjects in this study, ranging from 18 to 21 in age- male and female- who has just passed the intermediate levels. All the subjects are divided in to two groups. The control group consists of 25 students, the experimental 25 students, too.

Materials

This part presents the contents of texts, vocabularies, and exercise designed for this study. Two reading passages were used in the experiment. Reading passage A “Going home”, written by Peter Hamill, was selected from “New advanced reading skill builder”. Reading passage B “The date father

didn't keep “was a story written by Robert Zocks, which was chosen from “Reader's digest”.

Subjects of the experiment have passed all the intermediate levels, so they were expected to have grasped at least 1800 words. Except for target words, difficult words in the text were replaced by simple words. The aim of reducing the number of unknown words in the texts is to reduce the demanding cognitive and mental load of finding the meaning of new vocabularies on subjects. Finally, 26 target items were chosen from these two passages. The criterion of choosing target words was the high information value of them and also their rich **inferring cues in the context**.

Different exercises were used in this study. Accompany comprehension questions for incidental learning sessions, and explicit vocabulary exercises for intentional ones were used in the process of manipulating the research. Answering to comprehension questions based on reading passages A and B, and putting statements in the right order were used in incidental sessions; whereas, exercises like synonyms, word-matching, and blank filling were performed in intentional learning sessions.

Procedure

Both of the two groups were required to complete the vocabulary size test, pre-test, post-test, and writing test. The difference lied in the nature of the treatment.

In the first stage, students both in the control group and experimental group were asked to read passage A and then answer the questions based on the passage A. in the second stage, subjects in two groups had different tasks. Students in control group were required to read another passage (B) and answer the questions based on the passage B, which is called incidental learning, because the focus is not on the learning of the words. By contrast, students in experimental group don't have to read another passage; instead, they were asked to do some explicit vocabulary exercises relevant to passage A, which is called intentional learning, because subjects' focus is on the learning of words. Two different treatments cost the same amount of class time: approximately 55 minutes. The same vocabulary multiple-choice test was conducted two times: before the learning session (pre-test), and immediately after the learning session (post-test). The target words tested in the vocabulary size test and vocabulary MC test were identical, but ordered differently in order to get reliable statistics. Moreover, during the whole experiment, learners were forbidden to use any kind of dictionary, whether it is a traditional dictionary or an electronic dictionary.

Data Analysis

Question one: Which instructional technique facilitates the learning of receptive aspect of vocabulary knowledge, incidental learning or the combination of incidental learning and intentional learning? Which instrumental technique results in better retention? Table 1 shows that there is not much difference between the mean score and SD of both groups in vocabulary size test, indicating that students as a whole in the experimental group and control group have performed equally well in the vocabulary size test. So, from a statistical point of view, it can be said that the students in both groups are of the same level at the very beginning of the experiment.

Table 2 shows that students in both groups recognized almost 10 words before the instruction, and there is also no difference between the SD of the two groups. In addition, the most important statistics that would indicate there is no significant difference between both groups is the $t=0.36$. Therefore, it can be said that the students in both groups are of the same vocabulary size before the instruction.

From table 3, we can see that the growth of the receptive vocabulary in both two groups is not identical, with the improved mean score of the experimental group considerably higher than that of control group.

Since $t=3.68$, there is a significant difference between the lost vocabulary of the two groups. In addition, from table 4, it is obvious that control group has forgotten 2 more words than the experimental group one week later after the instruction.

Question two: Which instructional technique facilitates the learning of productive aspect of vocabulary knowledge, incidental learning or the combination of incidental learning and intentional learning?

From table 5, we can see that students in the experimental group outperformed the students in the control group since that the mean score of the experimental group is much higher than that of the control group. In addition, since $t=8.021$, there is a significant difference between the mean scores of the two groups in the writing test.

3- Is vocabulary size a predictor of the receptive and productive vocabulary gain?

Since $t=8.83$ and 7.28 , there is a significant difference between the vocabulary mean scores of the students of high level and low level in both groups, indicating that the vocabulary mean score of students of the high level is much higher than that of students of low level at the beginning of the experiments.

Since $t=1.43$ and 1.68 , there is no significant difference between the students of the two levels. Therefore, from a statistical point of view, it can be said that the students of the two levels in both groups are of the same vocabulary size in terms of the 26 target words.

Since $t=0.41$ and 1.10 , there is no significant difference between improved mean score of the students of the two levels, from which we can safely draw a conclusion that the students of low level in both groups, have improved their receptive vocabulary as many as those of the high level.

In the experimental group, since $t=0.30$, there is no significant difference between students of the two levels on the writing test and the mean score of the students of two levels is nearly the same. However, in the control groups, since $t=3.83$, there is a significant difference between the students of the two levels on the writing test. Besides, the mean score of the students of the high vocabulary level is 2 points higher than students of low level.

Discussion and Conclusion

Since it was adopted an Experiment& Control Groups Pre-test--Post-test design in this study, and from the table 1 and 2, it's clear that the subjects in this experiment are of the same language level at the very beginning, the errors within subjects are generally under control.

Students` receptive vocabulary gain and retention

The results of the study(tables 1-4) indicated that both instructional treatments resulted in significant gains in learners` receptive vocabulary knowledge, but the combination of the incidental and intentional learning instruction led to greater vocabulary gains and better retention. It is identified that language acquisition cannot be expected unless students notice the form, understand the meaning and establish the form-meaning mapping between them. Through the incidental learning, inferring the meaning of the word fosters the elaborate processing of the word, however, this process offers no guarantee for the retention of the link between the word`s form and its meaning. In other words, guessing from context does not necessarily result in long-term retention.

Students` productive vocabulary acquisition

The results of the study(table 5) indicated that learners in the incidental instruction treatment acquired some words but their knowledge of many of these words tended to stay at the recognition level. By contrast, the words acquired in the reading plus explicit exercises treatment tended to stay at the productive level. Students, who had practiced the words in a series of explicit exercise, could effectively manipulate the words and put the target words in to use correctly and appropriately in a writing test.

The reason lies in teacher`s focus. In incidental learning, the teacher`s focus is on general understanding of a text on the meaning of a word, ignoring or paying less attention to the form of a word. However, recognizing the word meaning in the context is only one aspect of grammatical patterns and collocation. It also includes how to use it in suitable situations and using the word to stand for the meaning it represents and being able to think of suitable situations for the word.

Vocabulary acquisition of students of different levels

The result shows that the combination of the incidental and intentional learning instructional methods worked equally well for the students of two levels on receptive vocabulary gain and productive vocabulary gain. However, in the incidental treatment, the students of the big vocabulary size and the students of small vocabulary size had nearly the same improved mean score of the receptive vocabulary knowledge, but with regard to productive vocabulary gain, a different picture emerged. Students of big vocabulary size did much better in the writing test than those of small vocabulary size, which showed that students` vocabulary size was a decisive factor that affected their performance in the writing test.

From the above analysis and discussion, we can know that given the same amount of time devoted to the two treatments, although reading for meaning appears to produce significant results in vocabulary acquisition, such reading supplemented with specific vocabulary exercises leads to the acquisition of even greater numbers of words as well as greater depth of knowledge. This suggests that although instruction makes a difference, more focused instruction is desirable to the Iranian advanced EFL students when the learning period is limited and specific vocabulary outcomes are sought. What`s more, reading plus explicit exercises instruction results in better retention than incidental learning instruction. And students` vocabulary size plays a decisive role in acquiring the productive aspect of the vocabulary knowledge.

Table 1. A comparison of the mean score of both groups in vocabulary size test

Groups	M	SD	T	df	p
Experimental	48.77	9.93	.29	42	.773
Control	49.30	9.31			

Table 2. A comparison of the mean score of both groups in pretest

Groups	M	SD	T	df	p
Experimental	10.12	3.12	.363	42	.719
Control	10.37	3.21			

Table 3. A comparison of the receptive vocabulary gain of both groups

Groups	M	SD	T	df	p
Experimental	14.14	3.43	6.91	42	.000
Control	8.91	3.99			

Table 4. A comparison of the receptive vocabulary retention of both groups

Groups	M	SD	T	df	p
Experimental	.12	2.15	3.68	42	.001
Control	2.05	2.86			

Table 5. A comparison of the mean score of both groups in writing test

Groups	M	SD	T	df	p
Experimental	12.93	2.61	8.21	42	.000
Control	7.53	2.60			

Table 6. A comparison of the mean score of the students (high/low) in vocabulary size test

Groups	M	SD	T	df	p
Experimental					
(High)	57.12	8.14	8.83	23	.000
(Low)	48.45	4.16			
Control	56.38	5027			
(High)			7.28	20	.000
(Low)	42.29	7.05			

Table7. A comparison of the mean score of the students (high/low) in pretest

Groups	M	SD	T	df	p
Experimental					
(High)	11.04	3.44	1.43	23	.166
(Low)	9.83	2.94			
Control	10.66	3.37			
(High)			1.68	20	.109
(Low)	9.23	2.90			

Table 8. A comparison of the of the receptive vocabulary gain of students (high/low)

Groups	M	SD	T	df	p
Experimental					
(High)	14.25	3.75	.41	23	.689
(Low)	13.92	3.31			
Control	9.61	4014			
(High)			1.10	20	.285
(Low)	8.33	3.87			

Table 9. A comparison of the mean score of the students (high/low) in writing test

Groups	M	SD	T	df	p
Experimental					
(High)	13.00	2.79	.30	23	.771
(Low)	12.79	2.30			
Control	9.33	1.43			
(High)			3.83	20	.001
(Low)	7.14	2.89			

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