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The Impact of L1 Equivalents Versus Context on Vocabulary Recall of Pre-university EFL Students

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Abstract

This study was conducted to compare the impact of two vocabulary learning techniques, namely context learning and translation learning, on vocabulary recall of sixty pre-university Iranian learners of English as a foreign language. They were divided into two groups of high and low proficient. In regard to two vocabulary learning conditions, each group was divided into two subgroups of fifteen. The data were collected using two types of tests, translation and fill-in-the-blank. The result revealed that the students' proficiency affects their recall. It also revealed that low proficient learners did well when translation learning was followed by translation recall test. However, they could not transfer their vocabulary knowledge to a new context. In other words, they did not perform well enough when translation learning was followed by context recall test. The high proficient group, on the other hand, had a better performance on the context recall test.

Keywords: 1. Vocabulary 2. Translation 3. Context 4. Recall

1. Introduction

Vocabulary learning by far plays an important role in learning a language, be it a first language, second language or a foreign language. It is, therefore, conceivable that the words are the building blocks upon

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which the second language learning is built. According to Rodriguez and Sadoski (2000, p.386), excellent reasons exist for devoting attention to vocabulary. A "practical reason" is importance of vocabulary items in mastery of a language. On the "theoretical level", the study of how the students learn vocabulary items can help us with understanding language acquisition. In the past, vocabulary teaching and learning were often given little priority in second language programs, but recently there has been a high interest in the nature of vocabulary and its role in learning and teaching (Richards & Renandya, 2002). Since vocabulary plays a crucial role in communication, the importance of vocabulary teaching and learning becomes more evident. The research findings have revealed that lexical problems frequently interfere with communication. As a matter of fact, communication breaks down when people do not use the right words (Allen, 1983).

In Iranian high schools, some teachers of English try to teach vocabulary items using L1 equivalents found in the students' mother tongue. Yet, a few others criticize translation-based learning and they try to teach English words in context. It must be mentioned that most of English vocabulary items used in both midterm and final exams ask the students either to complete the sentences using given words or they are required to complete the sentences using their own information. No matter in which proficiency level they are, their vocabulary knowledge is tested in regard to their ability to use such knowledge in context. Although main focus is on translation while teaching, the students are not frequently asked to give L1 equivalents for the English words and phrases.

In regard to the two approaches to vocabulary teaching/learning, there is a problem which has remained unsolved to date. The problem is whether the direct approach such as learning words through word lists is superior to the indirect approach such as guessing the meaning from the context or not. In fact, there are a number of studies that have addressed the issue, but most of such studies have come up with mixed results, i.e.

some of these studies show the superiority of context learning over translation learning and vice versa.

To clear the path, the present study tries to investigate the advantages and disadvantages of translation and context vocabulary leaning and their effects on the students' recall. Furthermore, the effect of the students' proficiency level on their vocabulary recall is touched upon.

1.1 Research Questions

The present study intends to find answers to the following questions:

1. Which group outperforms the other in recalling vocabulary items, those who learn the words in a sentence or those who learn the words associated with their L1 equivalents?

2. Does students' proficiency level affect their vocabulary recall?

3. Does the interaction between learning condition and the students' proficiency level influence their recall?

1.2 Research Hypotheses

The above questions lead to the following null hypotheses:

1. Vocabulary learning condition, i.e. translation learning or context learning has no effect on the students' recall.

2. The students' proficiency level does not affect their recall.

3. The interaction between learning condition and the students' proficiency level does not influence their recall.

2. Review of Literature

Two methods of vocabulary learning are often debated in the literature: explicit methods (direct, often de-contextualized) and implicit methods (indirect, contextualized). Strong advocates on both sides of the debate are not hard to find. According to Nation (1990, p.178), direct vocabulary learning involves "a conscious effort to learn vocabulary either in context or in isolation". Nation describes indirect vocabulary learning, on the other hand, as learning new lexis from the surrounding context during reading or listening.

In an experiment conducted with Finnish learners of English, Pickering (1982) examined the findings that learning foreign language words in context was inferior to learning words in pairs with native-language equivalents of the items concerned. In a study, Qian (1996) compared the learning of second language words in both lists and contexts. He employed 63 Chinese university learners of English learning a set of 15 English target words. The No-Context group produced significantly better scores on a recall test than the Context group did; As a result of his findings, he challenges the assumption that contextualized vocabulary learning always leads to superior retention. In a further experiment, Prince (1996) explored the role of context versus translation as a function of proficiency. In this study conducted on 48 EFL students, a recall experiment was performed to determine the relative advantages and disadvantages of context learning and translation learning as a function of learner proficiency. The results revealed a superiority of translation learning in terms of quantity, but an inability of weaker learners to transfer their knowledge into second-language contexts.

There is growing evidence of the facilitative effect of foreign-native translation on L2 learning. It is argued that when learners are presented with the translation of a foreign word, meaningful associations are easily made between the foreign word and learners' prior knowledge of that word in their native language. Such cognitive connections help to reinforce vocabulary learning and retention (Nation, 1982, 1990). Ianacone (1993, p.43), on the other hand, does not accept the use of word lists as a technique for learning vocabulary items, and argues that vocabulary lists are isolated and isolating. They are artificially constructed lists which lack context and are not capable of inspiring motivation to learn. He finally states that learning words in context allows students to build their own vocabulary lists and forces them to assume responsibility for their own learning.

Nation (1982) further puts forth the view that such extra effort made in acquiring meaning from context should greatly promote longer retention of vocabulary learning. Comparing context learning with

translation-learning, Meara (1980, p.225) points out that translation-learning strategy does not offer a complete picture of language learning but completely ignores the complex patterns of meaning relationships that characterize a proper, fully formed lexicon.

On the other hand, Harley (1995, p.11) supports the idea that LI can effectively facilitate the learning of a new lexical item. He argues that "reference to the LI provides useful support for L2 vocabulary learning". This idea is in line with Nation (1982) claiming that "…in the initial stages of learning of a new word, a translation will be more meaningful, because it will have many more associations for the learner than will a known synonym in the foreign language" (p.21). "Such learning", as he states, "should not be considered as a substitute for indirect learning but as a complementary approach which speeds up vocabulary development". Though he accepts the importance of using L1 equivalents and word lists as a useful vocabulary learning strategy, it seems that Nation (*Ibid.*) does not find it useful in higher levels of language learning. The rationale behind such a viewpoint might be the fact that the students at higher levels of language learning have a larger number of vocabulary items in mind, and they also know more grammatical points to tackle the sentential and supra-sentential contexts.

Psycholinguistically speaking, several theories have been proposed to explain how meaning is represented in permanent memory. Each of these theories puts emphasis on different aspects of meaning. The semantic feature approach and network approaches emphasize the denotation of the word in general and sense relations in particular (Johnson Laird, Herrmann, & Chaffin, 1984, p.311). Moreover, networking accounts for the way words are stored in one's mind. Some words naturally cause the others to come to one's mind; for instance the word *dog* calls forth *cat* and *animal*. According to this view, words are represented in memory through a rich network of "sense relations" (Carroll, 1994, p.108).

In the same vein, Level of Processing Theory (LOP) maintains that activities requiring more elaborate manipulation of information (deeper

processing) result in better memory than their counterparts, i.e. those requiring a shallower processing. Whether or not the LOP theory stands true, Krashen (1987) remarks that most non-specialist L2 learners are not dedicated linguists and when choosing between a high effort strategy like inferencing and a low effort strategy like translation, they will tend to choose the latter. It is obvious that the only mandatory step in translation learning is associating the L2 word with a familiar word in the L1. On the other hand, as Prince (1996) asserts, learning words in contexts requires taking three steps: (a) processing the sentence to understand it, (b) using his or her understanding to infer the meaning, (c) associating the meaning to the form of unknown word for future use, and concludes that the context vocabulary learning is more demanding than the translation learning (p.481).

Recently, Laufer and Hulstijn (2001) tentatively proposed the notion of *involvement*, consisting of (i) a motivational component, comprising the *need* to determine a new word's meaning, and (ii) a cognitive component, comprising *search* (e.g., dictionary look up) and *evaluation* (e.g., evaluating whether the information obtained from the dictionary applies to the verbal and non-verbal context). They hypothesize that retention of hitherto unfamiliar words is conditional, in general, upon the degree of involvement in processing these words. The results demonstrate a differentiated pattern, consistent with the view that it is elaboration of (Craik & Tulving, 1975), or involvement in (Laufer & Hulstijn, 2001) the lexical information being processed rather than any of these factors per se that determine retention.

In order to bridge the gap of vocabulary size between native speakers and second language learners within a short period of time, Nation (1982, 1990) proposes the superiority of direct vocabulary learning over indirect vocabulary learning. In agreement with this view, Prince (1996, p.479) mentions successful studies conducted by researchers such as Gekoski (1980), Kroll and Curley (1988), and Hulstijin (1992) showing that intentional vocabulary learning is likely to occur when using word pairs. The results of these studies seem to

indicate that this strategy is especially valuable to learners having lower levels of L2 proficiency. Evidence provided by Kroll and Curley (1988) suggests that after 30 months of studying a foreign language a shift occurs, that is, learning words in context begins to become more effective. As Schmitt (1997) and Nation (1982) point out, in spite of the shallower nature of word pairs in language learning, such activity appears to be more suitable for novice language learners as they contain less L2 material for learners to handle at one time. However, the results of a study conducted by Sanaoui (1995) shows that the learners' level of proficiency does not affect their vocabulary recall.

As regards teaching vocabulary through contexts, it is worth mentioning that, instead of explaining a new word directly, a contextual definition does it naturally by encouraging learners to make an effort to find out the meaning upon examination of how the word is used, and how it is associated with other words within a given text. In the process of learning from context, learners are made to pay particular attention to the linguistic information like grammar, parts of speech, immediate, or wider context that is present within a text (Nation, 1990). The point to be made here is that lexical acquisition needs to be considered broadly and needs to include the semantics of lexical items as well as syntactic information. A version of this point is made by Paribakht and Wesche (1997), who note that sentence-level grammatical knowledge is important in word processing. These are dynamic processes that continue as vocabulary learning continues and one’s lexicon matures.

3. Methodology

3.1 Participants

A total of one hundred students at pre-university center in Bagh-Malek, a city in Khuzestan, took part in this study. They were almost of the same educational background, of the same age group from 17 to 19. The main reason for the selection of these students comes from Kroll and Curley’s (1988, cited in Prince, 1996, p.479) proposal about the effectiveness of the shift from translation to context vocabulary learning

after about thirty months of study. It is noteworthy that all the participants have studied English during two educational years in guidance school and three educational years in high school. In average, they have had a thirty-month experience in learning English as a foreign language.

3.2 Materials

The material was composed of 40 English words with average frequency of about 20 chosen from British National Corpus (Davies, 1993) in which the words are ranked on the basis of their frequencies in a 1000,000 word corpus. Each of these words has one principal equivalent in Persian language which is clear and unequivocal. The items are chosen from concrete words either referring to an action or to an object. The main criterion for choosing the words is that the words must be unknown to the participants. The students' proficiency level was determined using Nelson English Language Test (Fowler & Coe, 1976) which was given shortly before the experiment.

3.3 Procedure

As mentioned earlier, 100 participants took part in a pretest which was on the basis of Nelson English Language Test (Fowler & Coe, 1976). The papers were corrected and scores of half a standard deviation above and half a standard deviation below the mean were included in the high proficient group and low proficient groups respectively. They were divided into four groups of 15 by means of random assignment.

In order to prepare a list of words unknown to the participants, a pretest was administered in three stages. First, the participants were given 60 words in the L1 (Persian), unknown to the participants, to be translated into L2 (English). Then, they were given another set of English words and were asked to write their equivalents in L1. The equivalents of the pre-selected words appeared on the second sheet. Finally, the participants received a list of English sentences in which the presumed unknown words were replaced by a blank. The students were instructed

to use the Persian words whenever they could not find a suitable English word to fill in the blank. This was to verify that the sentence is not so complex that affects the selection of an appropriate word and that the students had access to the meaning of the missing words. As a result of the three-stage pretest, 20 words, some being known to the students and others being cognates, e.g., *giraffe* and *pajamas* were discarded and 40 unknown words were selected to be taught in the experiment. The study phase and the recall phase took place a week later.

There were two learning conditions conducted on both high and low proficient groups. Participants in the translation condition received a list of 40 English words together with their L1 equivalents and they were instructed to repeat them several times. The students repeated the English words and the L1 equivalents and they were also allowed to practice them with their peers. The second group received a list of 40 sentences which have been used in the pretest, but this time the blanks were filled with target words. The new words were typed in a bold-faced font to attract the students' attention. By highlighting the new words, the researchers intended to amalgamate implicit and explicit vocabulary learning.

After the study phase, the papers in which new words were presented were collected and then the participants were moved on to a different activity for about an hour. Then the recall phase took place. The time allocated was the same as that of the study phase. For all participants, the recall test was composed of two parts: (a) Translation Recall consisting of a list of 20 English words with spaces for the participants to write the Persian equivalents, (b) Context Recall, composing 20 English sentences with blanks to be filled in by the students. They were allowed 20 minutes to complete the task in each test.

4. Results

The data was analyzed using Statistical Package of Social Science software (SPSS 16). Since there was more than one dependent variable in this study, multivariate analysis of covariance (MANCOVA) was used

for data analysis.

Having a look at Table 1, we can see that multivariate statistics, i.e. Pillai's trace, for proficiency and learning effect are significant ($\alpha = 0.01$). As a result, the null hypothesis claiming that linear combination of two dependent variables, i.e. Translation Recall (TR) and Context Recall (CR), will not be affected by independent variable is rejected.

Table 1: Multivariate tests for proficiency and learning effect

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Proficiency Level Pillai's Trace	.851	156.86	2.000	55.000	.0001	.851
Learning Pillai's Trace	.845	149.58	2.000	55.000	.0001	.845
Proficiency Level *Learning Pillai's Trace	.051	1.467[a]	2.000	55.000	.239	.051

However, the interaction between proficiency level and learning did not reach significance as a result of which the null hypothesis was accepted. Therefore, the linear combination of two dependant variables (CR and TR) was not affected by the interaction between independent variables. In other words, learning conditions affected the linear combination of CR and TR. Also, students' proficiency level affected linear combination of CR and TR. Whether dependent variables were affected by independent variables is a crucial question to be answered.

One of the questions in the present study was whether the students' learning condition affects their recall or not. As Table 2 below shows, the results reached significance (0.0001 < 0.01). Therefore, the null hypothesis stating that teaching method does not affect the students' recall is rejected and it is obvious that learning condition affects not only translation but also context recall ($\alpha = 0.01$).

Table 2: Uni- variate tests for the effect of learning conditions on the students' recall

Dependent Variable		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Translation Recall	Contrast	814.017	1	814.017	299.638	.0001	.843
	Error	152.133	56	2.717			
Context Recall	Contrast	101.400	1	101.400	22.066	.0001	.283
	Error	257.333	56	4.595			

The Bonferroni post-hoc test showed that the mean differences in translation recall and context recall were significant. Translation-based Learning (TL) group gained higher mean score and outperformed Context-based Learning (CL) group in translation recall test. However, the difference between the mean scores obtained by CL and TL groups in context recall test did not reach significance. Therefore, it can be concluded that vocabulary learning strategy affects the students' recall that confirms the first hypothesis.

The second question put forward at the beginning of the present study was whether the students' proficiency level affects their vocabulary recall or not. The results are shown in Table 3 indicating that students' proficiency level affects translation and context recall ($\alpha = 0.01$).

Table 3: Uni-variate tests for the effect of students' proficiency level on their recall

Dependent Variable		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Translation Recall	Contrast	212.817	1	212.817	78.337	.0001	.583
	Error	152.133	56	2.717			
Context Recall	Contrast	912.600	1	912.600	198.597	.0001	.780
	Error	257.333	56	4.595			

Further, the results of Bonferroni post-hoc test showed that the difference between the mean scores in high and low proficient groups

was significant. As a result, the high proficient group outperformed the low proficient group in both translation recall test and context recall. It can be concluded that learners' proficiency level affects their recall which is why the second hypothesis is confirmed. The last but not the least part deals with another question stating whether the interaction between students' proficiency level and learning strategy affects the students' translation and context recall.

Table 4: Tests of between-subjects effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
ProfLevel* Learning	Translation Recall	6.017	1	6.017	2.215	.142	.038
	Context Recall	5.400	1	5.400	1.175	.283	.021

As demonstrated in Table 4, the interaction between teaching condition and the students' proficiency level as two independent variables affects neither translation recall (0.14>0.01) nor context recall (0.28>0.01). Therefore, the null hypothesis stating that interaction between teaching condition and the students' proficiency level as two independent variables does not affect translation recall and context recall is accepted ($\alpha = 0.01$). However, results reveal that the independent variables affect linear combination of dependant variables.

5. Discussion

The first research question concerned the effectiveness of vocabulary learning condition in the students' retention of the meaning of the English words. With respect to the results obtained from the analysis of data pertaining to translation recall and context recall tests, the students' performance was better when the recall condition and learning condition were the same, no matter to which group i.e. high or low proficient they belonged. According to encoding specificity principle

(Tulving, 1983, cited in Prince, 1996, p.480), probability of recall increases if there is a similarity between the information provided by contextual cues at recall condition and the trace created during learning phase. In other words, the students' performance should be better when they meet the same conditions in recall phase as in the study phase. Therefore, similarity between TL and TR conditions and also in CL-CR might be the main reason behind their good performance. However, bad performance of low proficient learners might lie in the fact that the contexts used in recall test were different from those used in context learning condition. So, the trace created in mind as a result of learning condition was not the same as the one used in recalling the meaning of the words.

This difference between the learning condition and recall condition might be the reason why the students' performance was better in TL-TR than in CL-CR. Clearly, learning the words in translation and being asked to give L1 equivalents for the English words, the students feel a lighter cognitive load than the context condition. This result is in conformity with Krashen (1987, p.91) who remarks that most non-specialist L2 learners are not dedicated linguists and when choosing between a high effort strategy, i.e. inferencing and a low effort strategy, i.e. translation, they will tend to choose the latter. Since translation learning is not a demanding task for learners, especially low proficient ones, recalling the words in translation might require them to follow the same simple trace. Therefore, we expect the students to recall the words in TR better than the other three conditions.

The second research question aimed to determine the effect of the students' level of proficiency on their vocabulary recall. Good performance of low proficient learners is in accord with Gekoski (1980) who believes that, at lower levels of L2 proficiency, learners use L1 mediation in order to translate their thoughts into L2. Obviously, most of the words encountered in initial stages are concrete and as soon as the learners become certain about the meaning of the word either in context or through teacher's explicit explanation, they resort to L1 equivalent and

ignore the context in which the new word appears. In other words, vocabulary learning occurs in a translation condition. It can be another reason behind the low proficient learners' poor performance in context recall test following the context learning condition.

It seems that the overdependence of low proficient learners on translation learning is to some extent inevitable, that is, the presence of an L1 established "conceptual/semantic system" (Jiang, 2000, p.50) is a significant factor that affects the learners' vocabulary learning. The FL learners may tend to rely on this established L1 lexical system in learning new words, a tendency that has long been acknowledged. Because the meaning of an L2 word can be understood through its L1 translation, the learner's language processor may be less motivated to pay attention to the contextual cues in order to extract the meaning of new words. The established semantic system at the same time may discourage the meaning extraction in a different way. When learning a new word in L1, a child is learning a set of new semantic specifications simultaneously because no semantic system exists beforehand. However, when a student learns an L2 word, it is very unlikely that a new concept will be created in the process because similar concepts or semantic specifications already exist in the learner's semantic system. Instead, it is more likely that these pre-existing concepts will be activated. In a sense, the established L1 concept stands in the way of the creation of meanings similar to those in the existing system.

Interestingly, this dependency is stronger among the low proficient learners. Even when learning the new words in the context, they seem to resort to the L1 equivalent existing in their lexical system. One might question this idea on the ground that if the students try to activate their L1 semantic system, why not performing well in the translation recall test following the context learning condition. The answer to this skepticism may lie in the fact that the students in this study received no feedback from the teacher during the study phase, and therefore, they might not have been certain about the probable L1 equivalent activated when they encountered the new words in the context.

Support for the findings of the present study comes from the results of the study conducted by Mehrpour (2008) concluding that rote memorization of word-lists can work better than sentence-making practice, especially for Iranian learners of English at low levels of proficiency. It seems that the students at lower level of L2 proficiency try to use a low effort technique in vocabulary learning. The results of the present study are, however, in contradiction with the one conducted by Sanaoui (1995) in who concluded that the learners' level of proficiency does not affect their vocabulary learning.

One of the main criteria for choosing pre-university students as participants of the present experiment was that all of them had about thirty months of experience in language learning. As Kroll and Curley (1988) suggest, after thirty months of studying a foreign language, learning words in context begins to become more effective. The results of this study, however, do not support their proposal; that is, after thirty months of studying English in schools, the students are not necessarily ready to tackle with different contexts in order to infer the meaning of unknown words. It seems that Kroll and Curley did not pay attention to the students' proficiency level. Although the students might have attended the similar classes in a same period of time, some of them might be more proficient than others for one reason or another. Therefore, the students' level of proficiency is an important criterion to be taken into consideration when a teacher wants to have a shift from translation vocabulary teaching to context vocabulary teaching.

Inferencing the meaning of an unknown word from context is to a great extent related to the networks available in the learner's mind. Obviously a high proficient learner has a larger number of words than a low proficient learner as a result of which the learner will guess the meaning more confidently. Regarding the vocabulary learning strategy applied by the learners and in support to findings of the present study, Grace (1998, p.534) argues that deriving meaning from sentence level may lead to "deep and durable memory encoding" by triggering appropriate schema and providing a greater number of associations or

interconnections than word level translations. However, it is important to note that both groups in the present study could guess the meaning of the missing word appropriately by filling in the blanks using L1 vocabulary items.

Another issue which has to be focused on is the quantity and quality of vocabulary learning. Sometimes, the breadth of vocabulary is stressed, that is the number of memorized lexical items is under focus. However, some teachers pay much attention to depth of vocabulary learning. Though a large number of lexical items might be memorized in translation learning, the students might not be able to transfer their knowledge to a new context especially when language production is under focus. According to the previous lines of discussion, test designers must pay enough attention to include items dealing not only with breadth but also those which require depth of vocabulary knowledge.

One of the test formats which assesses the depth of vocabulary knowledge and hence quality of vocabulary learning is context recall test. The word part of speech, its location in a sentence, contextual clues and anaphors are but a few important features in dealing with an unknown word in the context. Supporting the important role played by guessing strategy, Akbari, Gafar Samar, and Asadi (2006, p.2) try to justify its application in L2 reading and they claim that "such a strategy has come from cognitive science and schema theory which are widely accepted in ESL and EFL circles". Top-down processing applied by the learners to guess the meaning of unknown words from context is another factor which affects their learning. Such an explanation might be another reason behind the high proficient learners' good performance in vocabulary recall and hence their vocabulary learning.

The findings of this study also indicate that the testing type appears to contribute to the organization of the mental lexicon, hence being effective in vocabulary learning and recall. De Groot and Keijzer (2000, p.5) distinguished between "productive vocabulary testing", where the L1 words are presented during testing and the corresponding newly learned L2 words have to be produced, and "receptive vocabulary testing", where

the newly learned L2 words are presented as a stimulus and the learners need to produce the L1 equivalents. Based on the definition, the translation recall test used in the present study is a kind of receptive testing. Interestingly, the result of the study conducted by De Groot and Keijzer (2000) revealed that the words' concreteness had no effect on their retention especially when the students took part in a receptive type of translation recall. Therefore, one cannot attribute the good performance of the low proficient learners in translation recall test to the words' concreteness, but such a good performance might stem from the congruency between the learning condition and recall condition. Obviously, when the learners acquire a new word in context, a semantic set is formed in mind. As soon as the learner encounters a new word, this semantic set is activated. Congruency between the learning condition and recall condition can cause a better activation of the students' vocabulary knowledge. Therefore, context learning condition, if followed by context recall test, can help the student better match the new context with the old information having in mind. In the next part of discussion, we deal with "level of processing" as a factor affecting the vocabulary recall. A question that may arise is which vocabulary learning strategy needs a higher level of processing, context learning or translation learning.

As far as the Level of Processing (LOP) theory is concerned, the findings provide empirical evidence to explain the results of the present study. The LOP used by Brown and Perry (1991, p.658) assumes that the dual encoding of information in verbal and imaginal form enhances elaboration and memory by producing stronger memory traces and more accessible retrieval paths. The results of the present investigation are also supported by Laufer and Hulstijn (2001) claiming that "the chance of some piece of information being recalled is not determined by the length of time that it is held in short-term memory, but rather by shallowness or depth with which it is initially processed" (p.540). Therefore, retention of new information depends on the quality of attention that individuals pay to various aspects of the words. Rich and numerous associations between existing and the new information increase the depth of processing and

hence increasing the chance of retaining the new information. In explaining the superiority of one vocabulary learning strategy over another, many researchers (Hulstijn, 1992; Paribakht & Wesche, 1997) suggest that the more effective strategy requires a deeper level of processing of the new words than the other strategy.

The findings of the present study, emphasizing the effectiveness of the context/keyword method for students with different levels of proficiency, are partly in contradiction with Rodriguez and Sadoski (2000) who concluded that the performance of students using the combined keyword/context method was significantly better than that of students using the keyword method. In other words, their findings revealed that the students' proficiency level does not affect their vocabulary recall.

Though the results of the present study support the advantages of context vocabulary learning over the translation learning when transferring the students' vocabulary knowledge, it does not mean that we look at context learning as a substitution for translation learning. On the contrary, learning new FL words with their L1 equivalents is typically good enough to get the beginning FL learner started with simple sentences composed of FL words, and also good enough for even quite proficient learners to go on using a bilingual dictionary whenever they encounter an unfamiliar FL word the meaning of which cannot easily be inferred from its context.

6. Pedagogical Implications

There are some implications that seem to be relevant to the classroom. First, teachers need to recognize that less attention is paid to vocabulary than to other language skills. Just as most teacher training programs rarely include vocabulary teaching methods in the curriculum, many classrooms rarely address the word learning need of students directly. Teachers spend most of their time on grammar and they assume that the students will build their own vocabulary items in other activities. The teachers and the students must bear in mind that vocabulary learning

does not occur unless the students are able to transfer their vocabulary knowledge to a context other than the one in which they learned the words. In fact, the students may learn a large number of words through translation, but they might not be well prepared to use them in another context.

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Appendix A

a=context condition, study phase, b=context recall phase, c=translation condition

1.

a. She broke her leg two weeks ago and now she uses crutches to help her walk.

b ……are very useful because they allow you to move about when you have a leg in plaster.

c. crutches (چوب زیر بغل)

2.

a. A butcher usually wears a white apron when he is working, to stop blood getting on his clothes.

b. I always wear a big blue ……..when I do cooking. if I don't, I get my clothes all dirty.

c. apron (پیش دامن)

3.

a. Don't come in here without shoes! I've just broken a glass and I've got to sweep the floor.

b. In autumn, I have to ……the yard every day because of all the leaves that fall from the trees.

c. sweep (جارو کردن)

4.

a. He had a backache, so he had to lean against the wall to stop himself from falling over.

b. Don't ……..against that door! The paint isn't dry. Your clothes will be ruined.

c. lean (تکیه زدن به)

5.

a. Reza winked at me to show that he was playing a joke on the others.

b. He could see the lights …….in the distance.

c. wink (چشمک زدن)

6.

a. The lightning in the sky shows that it is going to rain tonight.
b. Many clouds and the…….disappeared after the rain.
c. lightning (رعد و برق)

7.
a. They kneel down on the ground to pray.
b. She ……down to pick up the flowers on the ground.
c. Kneel (زانو زدن)

8.
a. -Don't spit the coffee on the ground. It's a bad habit.
- You would too if you put salt in it instead of sugar.
b. He was drinking a cup of milk, but he ……..it out immediately.
c. Spit (تف کردن)

9.
a. He put the book in the first drawer of my desk.
b. You can find the stamp in the middle …….of my desk.
c. drawer (کشوی میز)

10.
a. Last week, we went to the beach and collected a lot of shells there.
b. they could find a lot of …….near the sea.
c. shell (صدف)

11.
a. The box was very heavy, so they dragged it on the floor.
b. Reza's friends couldn't wake him up so they ……..him from his bed.
c. drag (کشیدن)

12.
a. Ali's head was broken in the accident and he lost a lot of blood.
b. I saw a lot of ……on the floor and I understood that my sister cut her finger.
c. blood (خون)

13.
a. Bahman was an orphan and lived with his uncle.

b. My father became an ……at the age of 12. His parents died in a car accident.

c. Orphan (یتیم)

14.

a. Ahmad speaks English with a bad accent. You don't understand what he says.

b. Some students try to speak Persian with a strong ……..

c. accent (لهجه)

15.

a. People were shouting different slogans against the Iraq's government in the streets.

b. We could hear the people's ……..against the U.S. president. They were angry with their government.

c. slogan (شعار)

16.

a. We tied his legs with a rope, so he couldn't leave the room.

b. All the family members took a ……..and crossed the river.

c. rope (طناب)

17.

a. All the windows of my grandmother's house were covered with beautiful curtains.

b. Isn't it dark here?

Yes! I will pull the ……aside.

c. curtain (پرده)

18.

a. A good fire was blazing in the fireplace.

b. When the firemen arrived all the house was……

c. blaze (سوختن)

19.

a. Don't crush the box. There are some flowers in it.

b. I put the eggs on the chair, but someone sat on the chair and ……them.

c. crush (له کردن)

20.

a. He didn't know anything about the computer; he had to read the manual to use it.

b. My brother bought a sandwich maker, but it didn't have a ……..to help him use it.

c. manual (دفترچه راهنما)

Appendix B

Translation Recall Test

1. Referee	5. Yogurt	9. Liver	13. Bustle	17. Victim
2. Yolk	6. Scorpion	10. Chimney	14. Lizard	18. Bachelor
3. Button	7. Donate	11. Yawn	15. Heel	19. Faint
4. Abacus	8. Luggage	12. Feather	16. Flesh	20. Treasure