

The Effect of Linguistic Context on EFL Vocabulary Learning

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ABSTRACT

There is limited literature on the role of linguistic context in learning and remembering new vocabulary items by EFL learners. To fill this gap in literature and to further explore the relationship between surrounding linguistic context and learning, and retention of new words, this study was set out to investigate whether systematically changing the amount of surrounding context has any significant effect on learning and retention of new vocabulary items. Forty-seven Iranian female advanced EFL learners within the age range of 18-24 were employed in this study and were taught 100 new vocabulary items (unknown words) in ten sessions and in three different contextual conditions (i.e., 1. one known word, one unknown/new word; 2. two known words, one unknown/new word; and 3. three known words, one unknown/new word). Known words for contextual conditions were selected from the previous units of *World Pass* which the participants had covered before. Furthermore, *Oxford Advanced Learner's Dictionary* was used for some of the contexts. The researchers made an attempt to use simple and high-frequency words from the units covered and/or from the dictionary. The results of one-way ANOVA for both immediate and delayed post-tests revealed that extending the number of known words (that is, adding to the amount of surrounding linguistic context) does not have any significant effect on learning and retention of new vocabulary items. It can be claimed that two or three known words context is still as small as one word context and they do not have differing contextual roles. Further results and implications are discussed in the paper.

Keywords: contextual conditions; EFL; known words; unknown words; vocabulary learning

INTRODUCTION

Vocabulary is one of the most fundamental and basic elements in learning foreign languages, which persuades linguists and methodologists to focus on this element, and to recommend ample time to teach it. The importance of teaching and learning vocabulary in foreign languages has been captured by many scholars including Krashen (1989) and Nation (1990), who believe that one cannot learn a language without learning its vocabulary. Lee Luan and Sappathy (2011, p. 6) maintain that “structures and functions of the language alone cannot be used for comprehension and communication”. Richards and Rodgers (2001, p. 132) refers to vocabulary as “the building blocks of language learning” and assert that “the building blocks of language learning and communication are not grammar, functions, notions, or some other unit of planning and teaching but lexis, that is, words and word combinations”. Huang, Huang, Huang and Lin (2012, p. 273) highlight the role of vocabulary by stating that “we can express our own ideas effectively only when we have sufficient vocabulary with which to do so”. In other words, it can be stated that learning a language includes learning the four skills, and vocabulary is one of the essential elements for learning them. Therefore, by neglecting

vocabulary in teaching and learning process, not only will no learning take place successfully, but students will also have serious problems in comprehension and production. As vocabulary is the fundamental and basic element in learning languages and especially for communication, it is essential to obtain some knowledge about the most effective techniques of teaching and learning it. There is a need to find a more practical and effective way for teaching it in order to save time, money and energy in the future. It is believed that by introducing an effective way for learning new vocabulary items to the learners, they become more motivated and engaged in the learning process.

Although many attempts have recently been made to introduce a more practical and effective way for teaching and learning vocabulary (Atay & Ozbulgan, 2007; Baleghizadeh & Nasrollahy Shahry, 2011; Bruton, 2007; Christ, Wang & Chiu, 2011; Çiftçi & Üster, 2009; Eckerth & Tavakoli, 2012; Erten & Tekin, 2008; Foil & Alber, 2002; Hoai Huong, 2006; Kasahara, 2010, 2011; Milton, 2009; Webb, 2007, 2008, 2009), learners still find it a challenging task to acquire new vocabulary items. Therefore, vocabulary knowledge has always remained a complex and multidimensional construct to master in need of more research in terms of how it can be properly developed.

Like other skills and sub-skills, new vocabulary items can be taught using many different strategies and techniques in order to help students learn and retain them better. For example, many different ways such as teaching new items in isolation, in a phrase, in context, using games, role play, etc. have been introduced to facilitate second language (L2) vocabulary learning and recall. As Ur (1996) states, new vocabulary items can be taught by translating the new items into students' mother tongue, using pictures for illustrating meaning, using words in context (i.e., using sentence, text or story in which item occurs), concise definition of them (giving dictionary meaning), providing a synonym or antonym for them, description of appearance, demonstration, or using them in chunks such as collocations and phrases.

Despite the existence of different methods, and researchers' and methodologists' effort to find and introduce a more practical and useful way for teaching new vocabulary items (Atay & Ozbulgan, 2007; Baleghizadeh & Moladust, 2012; Bruton, 2007; Çiftçi & Üster, 2009; Eckerth & Tavakoli, 2012; Hoai Huong, 2006; Milton, 2009; Webb, 2007, 2008, 2009), the question of which method of introducing vocabulary is more practical still remains a controversial issue in the field of L2 acquisition and has not been answered properly (Doosti, 2012). Many teachers still do not know which method is more effective for students, and also many students cannot learn and retain new vocabulary items because of the same problem. Indeed there may not be a single best method of teaching/learning vocabulary, generally speaking, and based on different contexts and with different learners, there may be different ways of teaching and learning vocabulary items which are more effective for certain contexts/individuals.

One of the ways to introduce new vocabulary items which has attracted the attention of a good number of researchers and teachers is the type and amount of linguistic context that surrounds an item. There are many different definitions for the term *context*. Nation and Coady (1988, p.102) define context as "context within a text". Engelbart and Theuerkauf (1999) divide it into verbal context and nonverbal context, and they explain them as follows:

Verbal context is the linguistic environment of an unknown word (grammatical context, semantic context), and nonverbal context is the content-oriented environment of an unknown word (situative context, descriptive context, subject context, global context). (p. 61)

To highlight the role of context in vocabulary learning, Kasahara (2011, p. 491) states that "teaching vocabulary in context means presenting new L2

target words in an example sentence or sentences”. In general, context refers to presenting or learning new words in conditions such as in a phrase, collocation, sentence, paragraph, or even in a text.

Different studies have focused on the effects of different types of context such as collocations or sentences on teaching or learning of new vocabulary items. The proponents of learning new item in context (Hashemi & Gowdasiaei, 2005; Kasahara, 2010, 2011; Schouten-van Parreren, 1989; Willis & Willis, 2006) believe that a larger linguistic context helps learners guess the meaning of new words, learn them better and even retrieve them easily in the future. In other words, the process of retention is significant in context-embedded learning conditions and students do not forget items easily. However, some researchers argue against the role of context in learning vocabulary. For instance, Dempster (1987) and Laufer and Shmueli (1997) argued that context may have little or no effect on learning new vocabulary items. Furthermore, it has been argued that learners gain much knowledge of form and meaning in isolation and without context (Prince, 1996; Laufer & Shmueli, 1997). Some of the studies for and against the role of context in vocabulary learning are reviewed next.

McKeown (1985) explored the process of acquiring word meaning from context. In this study, fifth-grade high- and low-ability children from Pennsylvania were asked to fulfill a task which tested their ability to derive the meanings of unknown words from a sequence of contexts and to utilize the words which had newly been learned in subsequent contexts. The findings highlighted the complexity of the meaning-acquisition process and differentiated successful and less successful children in acquiring word meaning from context.

The effects of key word and context instruction of new vocabulary meanings on text comprehension and memory was explored by McDaniel and Pressley (1989). Three methods were used to teach new vocabulary: keyword, semantic context and no strategy (in the control group). In the semantic context condition, participants were presented with verbal context to infer the meaning of novel words, but in the keyword method, the explicit definitions of the words were provided for the participants. After a vocabulary acquisition phase, participants in all conditions were supposed to read a text in which some of the newly acquired words were embedded in that text. Half of the text (embellished text) provided richer contextual clues than the other part (unembellished text). Results indicated the superiority of keyword-method over other methods for recall of new vocabulary definitions; nonetheless, subsidiary findings revealed that certain kinds of contextual clues could enhance comprehension of new vocabulary items.

Rodriguez and Sadowski (2000) investigated the effects of rote rehearsal, context, keyword, and context/ keyword methods on immediate and long term retention of EFL vocabulary. Participants of the study were 160 ninth-grade EFL students from two different schools located in Trujillo, Venezuela. They were randomly assigned to one of the four learning conditions mentioned above. Participants were assessed on their recall of the words either immediately or after a lapse of one week. Results of the study indicated the superiority of context/keyword method in recall of the words after one week.

The effect of the contextual condition on three consecutive sentences in learning vocabulary was investigated by Baleghizadeh and Nasrollahy Shahry (2011). Thirty-three Iranian EFL learners with an average age of 22 participated in the study. They were asked to learn 20 challenging English words in two conditions. They learnt half of the words in “three consecutive sample sentences plus their Farsi equivalent” (Baleghizadeh & Nasrollahy Shahry, 2011, p. 74) and the other half with first language (Farsi) definition and without context. The results of immediate and delayed tests indicated that learning in context is more effective than learning in isolation without any context.

The role of context in the performance of Iranian EFL learners in vocabulary tests was investigated by Sadeghi and Abdollahzadeh (2012). Sixty intermediate students in four groups including two female and two male groups, comprised the participants of the study. Four vocabulary tests each providing various degrees of context [i.e., the word definition matching test with no context, limited context test with unconnected sentences, reduced context test with cohesive but not coherent sentences, and a cloze test providing the whole context] were constructed and used to assess the participants' lexical knowledge. Data analysis showed a positive role for context in both male and female test-takers in the vocabulary tests; however, there was no significant relationship between the testees' gender and the amount of context in vocabulary tests. Both genders performed better in reduced context test. However, it seemed that when the context was longer than sentential context, they became confused.

Although there are studies which investigated the link between context and vocabulary (Atay & Ozbulgan, 2007; Baleghizadeh & Nasrollahy Shahry, 2011; Çiftçi & Üster, 2009; Erten & Tekin, 2008; Kasahara, 2010, 2011; Rodriguez & Sadowski, 2000; Sadeghi & Abdollahzadeh, 2012; Webb, 2007, 2008, 2009), these studies focused on presenting new vocabulary items in isolation or sentence-level context, and few studies have investigated the amount of surrounding context in a systematic manner. Furthermore, in most of the studies on contextual conditions (i.e., sentence level), attention has not been taken to identify whether other words accompanying new word are known or unknown to the students. The present study focused on known words and extended the amount of context around new item to see whether it has any significant effect on learning and retention or not. In other words, this study sought to find answers to the following questions:

1. What is the effect of the amount of surrounding linguistic context (i.e., one known word, one unknown word; two known words, one unknown word; and three known words, one unknown word combinations) on learning new vocabulary items?
2. What is the effect of the amount of surrounding linguistic context (i.e., one known word, one unknown word; two known words, one unknown word; and three known words, one unknown word combinations) on retention of new vocabulary items?

Based on the above research questions, the following null hypotheses are formulated:

1. The amount of surrounding linguistic context (i.e., one known word, one unknown word; two known words, one unknown word; and three known words, one unknown word combinations) does not affect learning new vocabulary items.
2. The amount of surrounding linguistic context (i.e., one known word, one unknown word; two known words, one unknown word; and three known words, one unknown word combinations) does not affect retention of new vocabulary items.

METHOD

PARTICIPANTS

A total number of 47 female advanced EFL learners (all the students enrolled in a known language school at the advanced proficiency level). They are within the age range of 18 to 24. Gender was regarded as a control variable in the study and that is why only female learners were involved. They were in three intact groups (grouped into classes by the institute, with the researcher having no authority to intervene in how students are divided into groups'; see Mackey and Gass (2005)). The participants were then selected randomly for each contextual condition. Two groups (i.e., one known word, one unknown word (1K-1U)); two known words, one unknown word (2K-1U) included 16 participants each and the other group (i.e.,

three known words, one unknown word (3K-1U)) included 15 participants. Their first language was Turkish and they were learning English for four or five years in one of the language school, Urmia, Iran. In order to gauge their level of language proficiency, an adapted version of TOEFL test including 40 items was utilized. The analysis of the obtained data from the proficiency test revealed that all the participants have similar proficiency level, which is at the advanced level.

MATERIALS

ADAPTED VERSION OF TOEFL TEST

To guarantee participants' homogeneity in terms of their language proficiency (in particular vocabulary proficiency), a proficiency test was administered. For this purpose, an adapted version of TOEFL test was used as the original test was too long. The test included 10 listening items, 10 items for vocabulary, 10 items for structure and 10 reading items. In order to check the reliability of the test, KR-21 Method was used and the results revealed a reliability of 0.68. Group means were 31, 27.8, and 27.3, respectively, for the three groups of the study, with an average mean of 29.06. The results revealed that all of the participants have the same proficiency level.

PRE-TEST

The second data elicitation tool was a researcher-made pre-test. This pre-test was designed with the aim of identifying new words to be focused during the treatment. In this test, a list of 150 vocabulary items was constructed using the words which the researchers judged to be new in the materials to be covered over the term (see Appendix A). As the researchers could not locate those items in the previous units of the same book or the books the learners had used in that institution, and as participants were going to learn those items in the following term, those items were therefore judged to be new. Having administered the pretest, those words which were new to all or almost all candidates were identified. That is, the words which were left blank, indicates that the students did not know their meaning. These were regarded as new words. The pre-test only asked the participants to give a Farsi equivalent to a word they knew or give a synonym, or to leave it blank if they did not know the word. The new words were focused on during the treatment, post-test, and delayed post-test.

Content validity to ensure there is correspondence between the test content and the content of the book was also addressed. To achieve the desired content validity, two experts who are familiar with the book, reviewed the test. These two experts were the supervisor and one of the best teachers of that institution who has been teaching there for about 10 years, and who were responsible for test development in that institution. These experts matched the test content against the course content and stated that the test served its purposes in terms of its content. In other words, the pre-test has content validity as its content appropriately matched the content of the course book.

WORLD PASS

The unknown items of the treatment were all taken from the book "*World Pass*" written by Stempleski et al. (2007). In addition, some of the known words for treatment were chosen from the previous units which the participants had learned before. One of the great advantages of it was the significant number of new vocabulary items in each unit. The book provided the students with new vocabulary items in colored bold font in order to attract students' attention. The researchers used these new vocabulary items in the pre-test, post-test, and delayed post-test. Since only three units were taught in each term, the researchers

selected the words from among the many items which were presented in three units that the participants were going to study in that term (i.e., units 4, 5 & 6).

POST-TEST

100 unknown words (selected out of 150 vocabulary items as explained above in Pre-test section) were used in the ten treatment sessions over a period of five weeks, in order to find out whether participants learned them or not, and also to find out which contextual condition was more effective in learning new vocabulary items. This included administering a post-test to all treatment groups. The post-test test was based on the new words the meanings of which the participants did not know, and those that the researchers had focused on during the treatment. The post-test included 100 items (i.e., 100 new vocabulary items), and the participants were supposed to write their meanings, synonyms, or Farsi equivalents in front of them. The post-test used in the study appears in Appendix B.

The post-test had content validity as it was extracted from the pre-test which was based on the content of the book, and two experts who were familiar with the content of the book reviewed it and stated that the test has desired content validity.

The reliability of the test was also checked by calculating the correlation between post-test and delayed post-test, which was the same test as immediate post-test. The estimated reliability was 0.89 which was indicative of a good degree of reliability for the test.

DELAYED POST-TEST

The fourth data elicitation tool was a delayed post-test which was administered to the participants one week after the post-test in order to gauge the longer-term effect of different contextual conditions on retention of vocabulary items. As explained in the previous part, this test had obtained the desired content validity. Also, as explained, the reliability of the test was checked by calculating the correlation between post-test and delayed post-test, and a desired amount of reliability (i.e., $r = 0.89$) was reported.

OXFORD ADVANCED LEARNER'S DICTIONARY-

The seventh edition of “*Oxford Advanced Learner's Dictionary*”, published by Oxford University Press in 2005, was another instrument used for choosing known words. Since *Oxford Advanced Learner's Dictionary* was the main dictionary used by the majority of students in that institution, the researchers decided to use this dictionary rather than others. Indeed, having used another dictionary would not have made a big difference either. The researchers tried to choose very simple words which were very easy to understand for the participants and even the lower levels could understand them. For example, in *Dork boy*, the word *boy* is a known word which is selected from the dictionary. It is also a simple and easy word even for the lower levels.

PROCEDURE

The first step was the administration of an adapted version of TOEFL test in order to homogenize the participants. It was administered to 47 advanced EFL learners who constituted three intact classes. After examining the participants' overall performance, a check on the reliability of the test (i.e., $r = .68$), and analysis of the obtained data, the mean score of 29.06 and range of 18 was reported for the proficiency test. The results indicated that all of the participants were in the same proficiency level. Indeed, having been students at the same institute for several semesters, having taken institute's final term achievement tests after each semester, and having been placed by the institute as Advanced level learners ensured the

researchers that the groups were advanced and homogeneous in nature. An average score of nearly 75% on the adapted version of the TOEFL indicated that participants may rightly be regarded as advanced learners. There was no participant who scored below 60% on the TOEFL test, so no participant was left out as the odd one (as supported by data in Table 1 below). After ensuring the homogeneity of the participants in terms of proficiency level, each intact class was randomly assigned to one of the three experimental groups. There were 15 participants in three known words, one unknown/new word group and 16 in each of the other experimental groups.

A list of 150 vocabulary items which the researchers thought to be new to the participants was administered as a pre-test in order to find the vocabulary items which were new to all or almost all candidates and those new items became the main focus of the treatment. These vocabulary items were selected from the “*World Pass*” book, three units of which the participants were supposed to have learned in one term. In other words, only three units of that book were covered in one term in that institution. The participants were supposed to give a Farsi equivalent to a word they knew or give a synonym, and leave it blank if they did not know it. The allocated time for taking the pre-test was 75 minutes (i.e., 30 seconds for each vocabulary item), but as most of the vocabulary items (i.e., 120 of which) were new to the participants, all of them finished the test in less than forty minutes since they did not attempt to provide an answer to the new items and left them blank. After the pre-test, 100 vocabulary items which were new to all the participants were focused on during the treatment.

The treatments lasted for ten sessions; and in each session, ten new vocabulary items were provided for the participants according to the appropriate contextual conditions which the researchers selected randomly for each intact class (see sample lesson plan at the end of the paper). In other words, the same teaching method was used for presenting new vocabulary items, that is, the teacher provided the participants with the definition, or explanation of words in all groups, except that in different groups varying amounts of context accompanied the new items. In order to make sure that participants paid attention to the treatments, the researchers provided all the participants in all groups with hand-outs based on those new items and their contextual conditions (see appendix D) in each session. In the treatment, session, known words for contextual conditions were selected from the previous units which the participants had learned before. Furthermore, sometimes the “*Oxford Advanced Learner’s Dictionary*” was used for some of the known words or the full contexts (i.e., known word/s + unknown word). In both cases, the researchers tried to use simple words with high frequencies from those units and from the dictionary which were very easy to understand for the participants.

After ten sessions of treatment, the post-test was administered to the participants in order to compare the group’s performance and examine the possible effects of different contextual conditions on learning new vocabulary items. The final step in carrying out the research was the administration of a delayed post-test in order to measure the longer term effect of contextual conditions on retention of new vocabulary items. In other words, the retention of new vocabulary items was compared in all groups by applying this test. In the scoring stage for both the post-test and the delayed one, each item received one score, with the overall score of 100.

DATA ANALYSIS

The elicited data were analyzed using the SPSS (Statistical Package for Social Sciences) software, version 18. The homogeneity of the participants at the outset of the study was checked by using a one-way ANOVA. As participants were not found to be different at the

outset in terms of their overall performance in the proficiency test, another one way ANOVA was used to uncover the role of context in learning new items. The same data analysis procedures were followed to evaluate the long-term effects of different contextual conditions using delayed post-test scores.

RESULTS

To make sure of the homogeneity of participants in all three intact classes [i.e., one known word, one unknown word (1K-1U); two known words, one unknown word (2K-1U); and three known words, one unknown word (3K-1U)], an adapted version of TOEFL test was utilized. To assess the normality of distribution of scores and to find the odd student, test of normality was run. Table 1 indicates the results for this test.

TABLE 1. Tests of Normality of Proficiency Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
proficiency score	.092	47	.200*	.967	47	.209

a.Lilliefors Significance Correction

* This is a lower bound of the true significance.

As Table 1 shows, the significance of Kolmogorov-Smirnov is 0.2 (i.e. more than 0.05); therefore, the assumption of normality is not violated. Also, in order to check the homogeneity of participants in the intact classes, one way ANOVA was run at the outset. Table 2 presents the descriptive statistics for these intact classes, where it can be observed that mean scores of all groups are close to one another. To check whether the existing differences were statistically significant, a one-way ANOVA was employed.

TABLE 2. Descriptive Statistics for Proficiency test Scores

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean			
					Lower Bound	Upper Bound	Minimum	Maximum
1K-1U	16	31.00	5.428	1.357	28.11	33.89	23	39
2K-1U	16	27.81	4.135	1.034	25.61	30.02	21	35
3K-1U	15	28.33	4.082	1.054	26.07	30.59	22	35
Total	47	29.06	4.720	.688	27.68	30.45	21	39

As shown in Table 3, ANOVA results indicate that there isn't a significant difference at the $p < .05$ level in proficiency test scores between the three groups: $F(2, 44) = 2.19, p = .123$. This implies that there was no difference among the three groups in terms of proficiency at the outset of the study.

TABLE 3. ANOVA for Proficiency Test Scores

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	93.038	2	46.519	2.197	.123
Within Groups	931.771	44	21.177		
Total	1024.809	46			

Table 4 presents mean scores and other descriptive statistics for all groups in immediate post-test. The mean scores are again very close, but to check the difference statistically, another

one-way ANOVA was run. Table 5 shows the results of ANOVA for immediate post-test scores.

As shown in Table 5, there is no significant difference at the $p < .05$ level in immediate post-test scores between the three groups: $F(2, 44) = .196, p = .822$. This implies that there was no statistically significant difference among the mean scores on the dependent variable.

TABLE 4. Descriptive Statistics for Immediate Post-test Scores

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1K-1U	16	62.25	21.146	5.286	50.98	73.52	24	92
2K-1U	16	57.38	24.470	6.118	44.34	70.41	11	91
3K-1U	15	58.60	22.834	5.896	45.95	71.25	28	92
Total	47	59.43	22.455	3.275	52.83	66.02	11	92

TABLE 5. ANOVA for Immediate Post-test Scores

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	205.139	2	102.570	.196	.822
Within Groups	22988.350	44	522.463		
Total	23193.489	46			

In Tables 6 and 7, descriptive statistics and ANOVA results for delayed post-test are presented, respectively. As some of the participants were absent in the delayed post-test session, the number of the participants decreased in two groups during the delayed post-test. Based on Table 6, participants in 2K-1U [two known, one unknown word] group did much worse than those in the other groups. To check whether this difference was meaningful, another one-way ANOVA had to be run. Similar to the earlier results, the results of one-way ANOVA for delayed post-test scores also revealed that there was no significant difference at the $p < .05$ level in delayed post-test scores between the three groups: $F(2,39) = .316, p = .731$.

TABLE 6. Descriptive Statistics for Delayed Post-test Score

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1K-1U	16	50.13	27.176	6.794	35.64	64.61	8	91
2K-1U	13	44.00	25.733	7.137	28.45	59.55	11	77
3K-1U	13	51.38	23.236	6.445	37.34	65.43	23	89
Total	42	48.62	25.142	3.879	40.78	56.45	8	91

TABLE 7. ANOVA for Delayed Post-test Scores

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	413.078	2	206.539	.316	.731
Within Groups	25502.827	39	653.919		
Total	25915.905	41			

DISCUSSION

Based on the results, the answers to both research questions are negative and both null-hypotheses are accordingly confirmed. It can be concluded that the amount of surrounding linguistic context (i.e., one known word, one unknown word; two known words, one unknown word; and three known words, one unknown word combinations) does not affect learning and retention of new vocabulary items. In other words, the results indicated that there was no difference among the three types of context (one known, two known, and three known plus one unknown word combinations) in learning and retention of new words. This means that extending the amount of surrounding linguistic context in terms of the number of known words does not seem to have any significant effect on learning and retention of new words. Participants learn and retain new items in all three conditions to a similar extent and none of the contextual conditions appear to be superior to the other ones. It can be claimed that two or three known word context are still as small as one word context and they do not have differing contextual roles. More contexts (e.g., sentence or paragraphs) may be needed to make context work.

A brief look at Table 4 indicates that, contrary to our expectation, participants in 1K-1U group (that is, the group with the minimum contextual support) indeed performed the best. The 3K-1U and 2K-1U had a negligible difference between the groups. What can be inferred from such an observation is that a smaller linguistic context may help new vocabulary learning better. However, considering the established role of context in vocabulary acquisition, one may argue that 'one', 'two', and 'three' word linguistic contexts may not be properly regarded as effective examples of context, and as argued later, there seems to be a need for a 'sufficient' amount of context, that is a 'threshold' level, beyond which the facilitative role of context may be discernable. Another justification for the finding is that maybe a smaller chunk (that is 1K-1U chunk) may require less processing time and energy by the learner, which is a more effective way of learning new words. This may also be partially related to 1K-1U group's relative superiority at the beginning of the study (as shown in Table 2). The nature of new words as well as known words used in different treatment groups may also have a part to play. Identifying whether the new words were purely new words and whether known words were truly known words will certainly contribute to understanding the real contribution of context. Indeed there may be a trade-off between the role of context and the frequency of the new/known words used in different treatments, a suggestion for future research.

A more or less similar situation holds true in the case of the delayed post-test. Based on Table 6, it can be easily understood that 2K-2U group did worst here as well. Indeed this lowest performance may also be related to their relative weakness at the beginning of the study as well (see Table 2). If linguistic context can be claimed to have a positive role in learning/retention of new words, this can be partially evident in the delayed post-test results, since despite having a lower mean than 1K-1U group at the outset of the study, the participants in this group (3K-1U group) have now outperformed them at this stage, although the difference is very small and negligible. However, such an observation becomes the starting point to argue that larger linguistic context can contribute to a more effective learning and retention of new words. Indeed having more participants, more treatment sessions, balancing word frequencies, types and categories (both known and unknown) in different treatment groups as well as having more linguistic context (4, 5, 6, etc. known words) can reveal the hidden part of the picture; that is, can partially provide information on the role of context in vocabulary learning. What may also be at stake may be not the amount or 'quantity' of context but the 'quality' of context; that is, the type of the vocabulary items which are selected to accompany an unknown word. In other words, having accompanying words with

different frequency levels, with different parts of speech, associated with a different meaning field, etc. could have had an effect on the ease or difficulty with which the new word could be learnt or recalled.

Furthermore, a comparison of Tables 4 and 6 indicated that the mean scores of all the three groups decreased in the delayed post-test, although the amount was not significant. In other words, forgetting new vocabulary items can occur in each technique, but the 3K-1U group suffered the least loss, another indication that more linguistic context seems to be contributing to vocabulary learning, although in small amount.

To sum up the findings, presenting new vocabulary items with different length of accompanying words did not have a statistically significant effect on learning and retention of new words, although traces of bigger linguistic context can be found in better learning of the new words.

The results can be said to be comparable with those of Schatz (1984) who carried out a study with two experiments. The first experiment was conducted by assigning students in grades 10 and 11 to either a context or a non-context condition. The second experiment was a repeated measures study in which 39 students in 11th grade were supposed to read sets of words in isolation as well as passages taken from four different content areas. The results of the study indicated that in neither of these experiments were there any significant effects due to context. Furthermore, participants were not able to use context as a method of inferring the meanings of new vocabularies. Also, the results are very close to the results of Dempster (1987) and Laufer and Shmueli (1997) who found that context may have little or no effect on vocabulary gains.

However, the results are in contrast to the work reported by Rodriguez and Sadowski (2000) who investigated the effects of rote rehearsal, context, keyword, and context/keyword method on immediate and long term retention of EFL. Results of the study revealed the superiority of context/keyword method in recall of the words after one week.

Webb (2008) carried out a study in Japan which is at odds with the findings of our study. He exposed the university students to ten target words in three sets of ten short contexts that were rated on the amount of information available to infer the target words' meanings. The results showed that the group that read the contexts containing more contextual clues had significantly higher scores on both tests of meaning. Maybe the reason of this contradiction with the present study is related to the amount of context. As discussed earlier, it can be claimed that two or three known words is as small as one word and can not affect learning process, and longer context is needed. As it happened in Webb's (2008) study, he used longer contexts than two or three words. However, his results are in contrast to the study conducted by Erten and Tekin (2008), indicating that participants learn new vocabulary items better in semantically unrelated sets, and semantically related sets do not show such results. They indicated that, "contrary to frequent practice in many course books, presenting new vocabulary that belongs to the same semantic set together may cause interference due to cross-association and may even hinder vocabulary learning" (Erten & Tekin, 2008, p. 407). However, their results are in contrast with those of Hashemi and Gowdasiaei (2005), who, reflecting on their own findings, assert that new vocabulary items should be taught in semantically related sets within an appropriate context because it will involve learners in deeper levels of mental processing.

CONCLUSION

Our findings suggest that extending the amount of surrounding known items does not have any significant effect on learning and retention of unknown vocabularies, and students can learn new vocabularies even in shorter context such as two collocations. Considering the

established role of context in language learning, this finding can be taken to mean that there is a threshold level for context to become effective. In other words, surrounding linguistic context is still regarded as limited and does not have the potential to trigger effective learning with a size of three and fewer words. Although further research is called for to substantiate this claim (especially due to the limited number of our research participants), the tentative conclusion we can arrive at based on the limited data available in this study is that there is little difference between no context and minimal context conditions in learning new vocabulary items. This finding does not however refrain us from accepting the role of 'enough' context for learning new vocabulary items. More research is needed to establish a threshold level at which the context can be termed 'enough', a case which may be different from learner to learner, from one learning context to another learning context and from one vocabulary item to another.

This study has a number of limitations which can be eliminated in future studies. First, since the study was carried out in one specific language institute, with a limited number of participants, the results cannot be generalized. It is obvious that clearer results on learning new vocabulary items in different contextual conditions would have been obtained with larger sample. The second limitation concerns the learners' level of proficiency, age and sex. The participants of this study were female EFL learners, with advanced proficiency level in English, and with an age range between 18 to 24. Therefore, the findings cannot be applied to other proficiency levels (elementary & intermediate), other age groups (children or young adults) or other contexts and language settings (ESL settings or other language institutes).

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APPENDIX A

Pre-test

First Name

Last name.....

Age.....

Educational Background.....

Please write the Persian translation or synonym of the following words. For the unknown words please specify how much information you have about it by options:

1. I have not seen this word at all.
2. I have seen this word, but I don't know what it means.
3. I have seen this word and I know its meaning.

1	Consumer		16	Graffiti	
2	Mediocre		17	Gang	
3	Panicking		18	Delay	
4	Monopoly		19	Homesick	
5	Corporation		20	Convince	
6	Greedy		21	Interfere	
7	Critic		22	Doubt	
8	Compensate		23	Resolution	
9	Unauthorized		24	Conflict	
10	Unethical		25	Harass	
11	Illegal		26	Clash	
12	Emerge		27	Intimidate	
13	Relief		28	Combat	
14	Serious		29	Temper	
15	Violent		30	Confront	
31	Sprawl		54	Brawl	
32	Coordinate		55	Threaten	
33	Disappointing		56	Bulling	
34	Bearable		57	Insecure	
35	Finance		58	Opponent	
36	Stubborn		59	Dreading	
37	Independence		60	Victim	
38	Transportation		61	Abuse	
39	Forefront		62	Dork	
40	Halt		63	Contribute	
41	Sustainable		64	Converse	
42	Revitalize		65	Counselor	
43	Advocate		66	Presentation	
44	Passable		67	Rapport	
45	Rusty		68	Perceive	
46	Carry on		69	Dismissive	
47	Brushing up on		70	Upshot	
48	Mother tongue		71	Dominate	
49	Master		72	Assess	
50	Retain		73	Extraterrestrial	
51	Interpreter		74	Resident	
52	Juggle		75	Intergalactic	
53	Captivate		76	Anticipate	
77	Frighten		100	Debate	
78	Overwhelm		101	Rebuttal	
79	Relieve		102	Convey	
80	Confuse		103	Proficient	
81	Bewilder		104	Immersion	
82	Sightsee		105	Widespread	

83	Determine		106	Proposition	
84	Aggressive		107	Unchecked	
85	Sarcastic		108	Fluent	
86	Supportive		109	Stranded	
87	Acquire		110	Scarce	
88	Glamour		111	Meager	
89	Feedback		112	Malnutrition	
90	Jargon		113	Logistics	
91	Aspiration		114	Desperate	
92	Sidetrack		115	Comfortable	
93	Broadcasting		116	Chaotic	
94	Exhaust		117	Escaped	
95	Renowned		118	Stingy	
96	Resignation		119	Generous	
97	Fixture		120	Hurricane	
98	Apprentice		121	Stuffed	
99	Swap		122	Cram	
123	Ambitious		137	Submerge	
124	Enthusiastic		138	Sweep	
125	Instruct		139	Stampede	
126	Persuade		140	Dart	
127	Influence		141	Impassable	
128	Stranger		142	Ragged	
129	Filthy		143	Rancid	
130	Stained		144	Crumple	
131	Disoriented		145	Extraordinary	
132	Displeased		146	Eye contact	
133	Quote		147	Sparkle	
134	Diverted		148	Dough	
135	Bucks		149	Distinctly	
136	Fractured		150	Specialist	

APPENDIX B

Post-test

First name.....

Last name

Please write the definition or Farsi equivalent of the following vocabulary items.

Bullies	Convey.....
Opponent.....	Proficient
Dread.....	Halting
Abuse.....	Brushing up on.....
Dork.....	Carry on
Harass.....	Retain.....
Confront.....	Rusty.....
Contribute.....	Interpreter.....
Temper.....	Juggle
Brawl	Captivate.....
Conflict.....	Overwhelm.....
Scarce.....	Relieve.....
Sustainable.....	Bewilder.....
Forefront	Determine.....
Proposition.....	Monopoly.....
Widespread.....	Embarrass.....
Advocate.....	Aggressive
Unauthorized.....	Sarcastic.....
Immersion.....	Supportive.....
Revitalize	Acquire.....
Mediocre	Sprawl.....
Emerging.....	Bearable
Relief	Fixture.....
Clash	Apprentice
Combat.....	Swap.....
Sidetracked	Enthusiastic.....
Greedy.....	Instruct.....
Broadcasting	Persuade.....
Critic.....	Filthy.....
Exhausted.....	Stain.....
Intimidate	Disoriented.....
Renowned.....	Stranded.....
Converse.....	Meager.....
Resignation.....	Logistics.....
Rapport.....	Desperate.....
Perceive.....	Extraordinary.....
Feedback.....	Chaotic.....
Dominate.....	Stampede.....
Upshot.....	Malnutrition.....
Compensate.....	Resident.....
Coordinate.....	Intergalactic.....
Resolution.....	Anticipate.....

Dismissive.....	Aspiration.....
Assess.....	Stuff.....
Extraterrestrial.....	Rebuttal.....
Jargon.....	Cram into.....
Sweep away.....	Glamour.....
Debate.....	Submerge.....
Dart.....	Ragged.....
Rancid.....	Crumpled.....

APPENDIX C

Sample Lesson Plan ()

Unit 4 (lesson B)

- Warm up
 - Talking about the title of the lesson
 - Asking the students to answer the question in part 1
-
- Teaching the new vocabulary items in part A (based on appropriate contextual condition for each group)
 - Asking the students to look at the pictures in part B and talk about them in pair
 - Asking the students to discuss the questions in part C
-
- ✓ Talking about the title of the reading and asking students' opinions
 - ✓ Asking students to read the questions in each part on page 46 and read the reading and answer the questions
 - ✓ The new vocabulary items in reading were taught according to appropriate contextual condition in each group

APPENDIX D

Bullies: a person who uses their strength or power to frighten or hurt weaker people

Fight the bullies

Controlling school bullies

Strategies for controlling school bullies

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