

*Full Length Research Paper*

# The comparative effects of the word association and the lexical inferencing strategies on EFL intermediate learners' phrasal verbs retention

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## ABSTRACT

The present study is an attempt to investigate the comparative effects of word association and lexical inferencing strategies on intermediate EFL learners' phrasal verbs learning and retention. For this purpose, 90 intermediate female English learners attending Jahad language school took a piloted sample KET test, 60 of whom were selected as homogenous learners. They were randomly divided into two experimental groups-one learning phrasal verbs through word association strategy and the other with the lexical inferencing strategy. They were given a pre-test on phrasal verbs to ensure that the participants had no prior knowledge of the target phrasal verbs. Then all participants in both groups were taught using the same material and received the same amount of instruction. The only difference was for teaching of phrasal verbs. One experimental group was taught mainly through the word association strategy while the other experimental group learned by the lexical inferencing strategy. After conducting the treatment, a post-test was administered to both groups. The analysis of the test scores using *t*-test revealed that both strategies had a significant effect on learning and retention of the phrasal verbs. It was also concluded that there was no significant difference between the performances of both groups on learning and retention of the phrasal verbs.

**Keywords:** phrasal verbs, lexical inferencing strategy, word association strategy, collocation

## INTRODUCTION

One of the most important components of any language to teach and learn is its vocabulary. Vocabulary is a further component of language. Without vocabulary, skills of language learning including listening, speaking, reading and writing cannot be successfully achieved. Wilkins (1972) states that without grammar little can be conveyed, but without vocabulary nothing can be conveyed. So, we cannot deny that vocabulary learning plays a very important role in second language learning and a large vocabulary will help improve their language

proficiency.

Vocabulary learning has many facets and one of its challenging aspects consists of phrasal verbs. A phrasal verb is a type of English verb that operates like a phrase rather than as a word. Since they are composed of the content word (verb) and the function word (particle), they can be dealt with either in vocabulary as multiword expressions, or in grammar, with regard to the transitivity and the separability. The combination between the verb and the particle has different labels; multiword verbs, two-

three word verbs, or phrasal verbs (Decapua, 2008). Phrasal verb structure is peculiarity of the family of Germanic languages (Dagut and Laufer, 1985).

### **Lexical inferencing strategy**

The study of vocabulary learning strategies is demanded naturally as an important step in SLA. One of the ways teachers can aid this process is by helping learners become aware of and practice in using a variety of vocabulary learning strategies. One of these strategies is lexical inferencing. Many studies were conducted in relation to this strategy over last years.

Hsu (2004) focused on an investigation of how to enhance incidental vocabulary acquisition through guessing words from context. The participants in her study consisted of four classes with a combined total of 186 junior college students in Taiwan. The aim of the study was to instruct the students in lexical inferencing to observe if the strategy could help them enhance incidental vocabulary acquisition through reading. The participants were divided into two groups, an experimental group and a control group, and later each group was further divided into three different levels based on English proficiency. The results showed that the incidental vocabulary gains increase in the experimental group was significantly superior to that in the control group.

Mohammad (2009) used two approaches to vocabulary instruction with 34 Level 3 college students. One strategy was applied for direct teaching of the individual meanings for a set of unfamiliar words to students to derive word meaning from sentence context, rather than teaching specific meanings. Findings indicated that both approaches were effective in helping students acquire, retain and further recall the lexical items instructed.

Shokouhi and Askari (2010) studied the impact of a contextual guessing strategy on vocabulary and reading authentic texts at the pre-university level. One-hundred male and female students were randomly selected and assigned to context and non-context groups. The context group received a contextual guessing strategy to infer the meaning of low-frequency words while the non-context participants were treated by a direct method. The results revealed that contextual guessing strategy instruction was more effective than direct vocabulary instruction and was more effective than the non-context method in improving reading. Thus, the results suggested that a more effective way to produce large-scale vocabulary growth is through contextual guessing strategy.

Shahzad and Derakhshan (2011) investigated the impact of instruction and intervention in deriving word meaning on incidental vocabulary learning in EFL context. They also aimed to find out whether the contextualized words that appear with more clues learned

better and consequently kept longer. To these ends, 50 freshmen Iranian college students from Teacher Training University of Azarbaijan participated in this study. The results of this study showed that the instruction in deriving word meaning had positive effect on students' incidental vocabulary learning. Also, it was concluded that students should meet the words in contextualized forms more frequently in order to keep and retain them in the long run.

### **Word association strategy**

Another vocabulary learning strategies is called word association strategy. Instruction through word associations can help develop learners' awareness of the differences between the L1 and L2 lexical systems and reduce their reliance on L1 (wolter, 2001).

Istifci (2005) investigated word associations of elementary and advanced EFL learners through 20-item word association test in order to see whether there were differences or similarities between the results of the students in these groups. The results of the study suggested that EFL learners tried to use a wide range of word association techniques and the proficiency level of the students have partial effect on their use of word associations.

Lewis (2001) points out that some writers refer two types of collocations: grammatical and lexical collocations. Grammatical/syntactic collocations relate to combining a main word with a grammatical word, such as an adjective and a preposition, verb +preposition or noun+ a preposition. Lexical/semantic collocations are combinations in which two (or more) words add to each other's meaning. This study considered lexical collocations related to the phrasal verbs (common objects with regard to each phrasal verb).

Ozgul and AbduLkadir (2012) found out the effect of teaching vocabulary through collocations. Pre-test/post-test control group design was employed in this study. 59 seventh grade students from two classrooms in a lower-middle class, suburban state primary school in Konya, Turkey participated in this study. The experimental group was taught new words using collocation techniques; the control group was taught new words using classical techniques such as synonym, antonym, definitions and translation as it was in the previous reading classes before the study. The statistical analysis revealed that teaching vocabulary through collocations results in a better learning of the words than presenting them using classical techniques and enhances retention of new vocabulary items. Teaching vocabulary through collocation can be an effective factor in helping students remember and use the new words easily in primary school EFL

## Phrasal verbs

Some studies investigated the effect of lexical inferencing strategy on phrasal verbs learning. Cooper (1999) concluded that context can be a successful strategy in the teaching and learning of multiword expression. Cirocki (2003) proposes that students should be encouraged to read a passage where phrasal verbs are presented in real contexts and then deduce their exact meaning as well as determine if they are transitive or intransitive, separable or inseparable and etc.

## Statement of the problem

Phrasal verbs are and will always be a difficult subject to be taught and learned. Students complain that they memorize the meaning of that long list of verbs followed by a preposition and use in English sentences. Teachers complain that they also have difficulty in remembering the different meanings that phrasal verbs have in different contexts and involve their students into successful and productive activities in which they learn and use them accurately. The multi-word verbs with idiomatic meanings create difficulty, because of mismatch of the idiomatic meaning and the meanings of the individual words in the verb.

According to Larsen-Freeman (2001) "Students do not use phrasal verbs frequently either in their speech or in their writing; they replace them with one word verbs. Most of the techniques that teachers use in teaching phrasal verbs do not make students interested to use them."

Phrasal verbs are considered among the difficult components of English to be mastered (Boers and Lindstormberg, 2008). Decapua (2008) stated that phrasal verbs are among the toughest English structures to teach and to learn. Such difficulty appears when learners recognize the verb but not its particle. Such misleading could be happened when the verb and the particle are split up into two parts by some words in sentences.

Phrasal verbs create special problems for language learners because there are so many of them and the combination of verb and particle seems so often completely random (Cornel, 1985; Side, 1990); Bonlinger (1971) pointed out that phrasal verbs are considered as neglected zones. Phrasal verbs are so arbitrary that no one has yet been able to offer a truly satisfactory way of teaching them (Schmitt, 2000). There are no best methods in education with respect to English phrasal verbs (Prabhu, 1990).

Hence, this study investigated the comparative impact of the word association and the lexical-inferencing strategies on learning and retention of phrasal verbs. It is expected that the results of this study shed light on problems of phrasal verbs learning.

## Statement of the research questions

Six major research questions are addressed in this paper:

- 1) Does the word association strategy have any significant impact on intermediate EFL learners' learning of phrasal verbs?
- 2) Does the lexical inferencing strategy have any significant impact on intermediate EFL learners' learning of phrasal verbs?
- 3) Is there any significant difference between word association and lexical inferencing strategies on intermediate EFL learners' learning of phrasal verbs?

## Significance of the study

Phrasal verbs are used a great deal, especially in spoken English. Phrasal verbs are important components of English because of their overuse by natives in every day usage and in different writing fields (McMillan, 2005).

It is assumed that phrasal verbs enable us to speak and write advanced English. Therefore, one needs to know them in order to speak, read and write advanced English. Honey (2005) stated that phrasal verbs are as one of the most important parts of communication.

The importance of multiword expressions to gain fluency in language learning has been asserted by many researchers (Wood, 2004; Folse, 2004). Students need to improve their knowledge of phrasal verbs to improve their listening and writing.

Foreign learners tend to pick up phrasal verbs in order to perform and produce authentic language (Fletcher, 2005). So, phrasal verbs are one of the most creative resources of English language, since new combinations are easily created by attaching particles to verbs which were not previously attached and in this way they express new concepts.

The present study is considered to be significant for some reasons. It can offer pedagogical applications for teachers, students as well as text book developers. First of all, the results can help teachers have a better view on using the word association and the lexical inferencing strategies in teaching phrasal verbs. Secondly, the results can help students have a better view on using vocabulary learning strategies rather than avoiding them.

Finally, textbook developers can also take substantial benefits from this study. They can incorporate these strategies for learning phrasal verbs in the syllabus of the course books.

This research aims at investigating some useful ways in teaching phrasal verbs. The research is an attempt to shed light on how to use the word association as well as the lexical inferencing as effective strategies in teaching phrasal verbs and in encouraging students to use these

strategies in leaning phrasal verbs and using them in their speaking and writing.

## **METHODOLOGY**

### **Participants**

The participants of this study were 60 female students of a language school. Their age ranged from 18 to 30. Candidates' level of proficiency was intermediate. All of them studied Top Notch 3 and attended English classes at least three sessions a week, each one lasting 90 minutes. Although the level of language proficiency of these subjects was determined by the institute itself, the subjects were homogenized by the KET Test. Then, 30 participants were randomly assigned in an experimental group and the other 30 participants were considered as another experimental group. The two groups were placed in four different classes because the number of students in each class was 15 in most of language schools in Iran.

### **Instrumentation**

#### **Language proficiency test**

Before conducting the study, the researcher homogenized the participants by application of the piloted KET Test which is suitable for the intermediate level.

The KET Test was already piloted with 30 students of the same level and similar characteristics to the subjects of the study. After the results of the pilot study were analyzed, it turned out that no malfunctioning items were found which meant that the original version of the KET test could be used in the main study.

The KET test covers two skills: reading and writing. It also measured the subjects' vocabulary and grammar level. It consisted of 56 questions in 9 parts and each question carried one mark. They were asked to answer the questions in the answer sheet. The answer key was available to the teacher as well. The reading section (in parts 4 and 8) consisted of 12 questions including multiple choice and completion. In part 5, there was a cloze test with 8 multiple choice questions. In the writing section (in part 9), the participants were presented with some kind of information in terms of postcard. They were supposed to write a paragraph of 23-35 words.

The vocabulary section (in parts 1,2 and 6) consisted of 15 questions. In part 1, the participants should match 5 statements to the relevant signs. In part 2, the questions were presented in the multiple choice form and in part 6 the definitions of the target words were presented with the initial alphabet of the words. Then the participants should write the word related to each definition. The grammar section (in part 7) consisted of 10 questions. The participants were supposed to complete the letter

with appropriate words. In part 3, the participants were supposed to complete the conversations with the best choice.

### **Oxford phrasal verbs dictionary**

Each phrasal verb is accompanied with the main forms and stress followed by the definition. Irregular forms of each verb are specified along with its variants. Examples related to each phrasal verb show how the phrasal verb is used in context. It also includes synonyms, antonyms, and collocations for each phrasal verb. Collocations show frequent subjects and objects, given in order of frequency. Moreover, it includes grammar codes that show the correct word order. The researcher selected 50 phrasal verbs that are common for intermediate students from the Oxford phrasal verbs dictionary (2006).

### **Pretest**

To ensure that the participants had no prior knowledge of the target phrasal verbs, the researcher administered a pretest. It was a four-option test that measured recall of meaning. The test was designed by the researcher and included 30 items. In order to pilot, the test was administered to 30 randomly selected female students. The members of this group were closely resembled to the participants of the study. According to the results of the pilot study, there were no malfunctioning items.

### **Posttest**

The researcher designed the posttest for each group as well. It was similar not identical to the pretest. Like the pretest, the test included 30 four-option items. It was conducted the next session. In order to pilot the test, the test was administered to 30 randomly selected female students. During item analysis, some items were found to be changed.

### **Delayed posttest**

The researcher designed the delayed posttest for each group as well. It was similar not identical to the pretest and the posttest. Like the pretest and the posttest, the test included 30 four-option items. It was conducted after two weeks interval, because it was designed to measure the abilities of the students to remember the taught phrasal verbs. In order to pilot the test, the test was administered to 30 randomly selected female students. According to the results of the pilot study, there were no malfunctioning items.

## Procedure

The homogeneity of the subjects in terms of their language proficiency was controlled through their scores on the KET test. A pilot project was conducted on 30 intermediate to go through the process of standardization of the KET proficiency test. After analyzing the items, no malfunctioning items were found. Before teaching the target phrasal verbs, a pretest was designed by the researcher. The purpose of the pretest was to recognize a set of phrasal verbs that were not known by any subjects of the study. The pretest included 30 four-option questions and was already piloted with subjects with the same characteristics as the subjects of the study. According to the results of the pilot study, there were no malfunctioning items. After the pretest, the two experimental groups were to learn the phrasal verbs through the word association strategy and lexical inferencing strategy respectively. To this end, the researcher selected randomly 50 phrasal verbs that were common for the intermediate level from the Oxford phrasal verbs dictionary (2006). It was an attempt to select only phrasal verbs that were transitive (25 separable phrasal verbs and 25 inseparable ones) in order to study the objects related to each phrasal verb through the word association strategy. The treatment was done during 10 sessions in both groups. The participants learned 5 phrasal verbs in each session in both groups and the time allotment for each session was 20 minutes.

The first experimental group was taught the target phrasal verbs through word association strategy. Since collocations are considered as a part of the word association (Engelbart and Theuerkauf, 1999), the researcher taught the phrasal verbs through collocations which were thought to be the most frequent ones. To this end, collocations related to each phrasal verb were extracted from the Oxford phrasal verb dictionary (2006). The phrasal verb was written in a circle in the centre of the board. The researcher stated the general meaning of phrasal verbs through definitions, antonyms, synonyms and translations. Then collocates (objects) especially which were thought to be the most frequent ones, were written around those phrasal verbs. After presenting the new phrasal verbs through the use of collocations, the researcher invited the students to make new sentences with the taught phrasal verbs along with the collocations in each session. The researcher gave feedback on the sentences made by the students. The students were asked to make more sentences with the phrasal verbs as homework. This procedure was followed up to the end of the session 10.

The other experimental group was taught the target phrasal verbs through the lexical inferencing strategy. First, the researcher introduced the lexical inferencing to the participants through definitions and a little explanation so that they could make sense of it. At each session the

researcher gave a hand out to the students. It consisted of five sentences in which the five target phrasal verbs were included. Most of the sentences were extracted from the Oxford phrasal verbs dictionary. The sentence contexts were presented in random order and the target phrasal verbs along with the related objects were highlighted in the sentences. Then the students had time to guess the meanings of those ten phrasal verbs using contextual clues. During the remaining 10 minutes the instructor checked their guesses and wrote the meaning of each phrasal verb on the board with the help of the students. After presenting the new phrasal verbs through contexts, the researcher invited the students to make new sentences with the taught phrasal verbs. The researcher gave feedback on the sentences made by the students. Then, the students were asked to make more sentences with the phrasal verbs as homework. This procedure was followed up to the end of the session 10.

After conducting the treatment for both experimental groups, the researcher designed the posttest for each group as well. The piloted posttest was administered the next session. They had 30 minutes to answer the items. The correct answer to each item received one point and there was no penalty to wrong responses. The piloted delayed posttest was also conducted after two weeks late because it was to measure the abilities of the students to remember the taught phrasal verbs. They had 30 minutes to answer the items. The correct answer to each item received one point and there was no penalty to wrong responses.

## RESULTS

### The results of the proficiency test (KET) piloting

Following the piloting of the test, the mean and standard deviation of the raw scores were calculated. The mean and the standard deviation of this administration were found to be 28.31 and 4.33 respectively. Table 1 below shows the descriptive statistics of the KET in the pilot phase.

### The results of the proficiency test (KET)

Following the administration of the final version of the proficiency test for the purpose of homogenizing, the researcher selected 60 intermediate students whose scores fell between one standard deviation above and below the mean of test from 90 candidates.

60 students were assigned into 2 groups which were scattered in 4 classes. The descriptive statistics of the participants on the proficiency test with the mean of 31.2345 and the standard deviation 3.33 are presented in table 2.

**Table 1.** Descriptive Statistics of the KET Test Piloting

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Participants	30	28.3111	4.33	24	48

**Table 2.** Descriptive Statistics of the KET Test

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Participants	90	31.2345	3.33	26	51

**Table 3.** Descriptive Statistics of the Pretest Scores of the Word Association group

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>	
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>
Group 1	30	1.00	7.00	4.4333	1.73570	-.177	.427

**Table 4.** Descriptive Statistics of the Posttest Scores of the Word Association group

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>	
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>
Group 1	30	22.00	28.00	25.0333	1.60781	-.004	.427

**Table 5.** Descriptive Statistics of the Pretest Scores of the Lexical Inferencing group

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>	
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>
Group 2	30	1.00	8.00	4.7000	1.84110	-.058	.427

**Table 6.** Descriptive Statistics of the Posttest Scores of the Lexical Inferencing group

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>	
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>
Group 2	30	23.00	28.00	25.6333	1.58622	-.178	.427
	30						

### Testing the hypotheses

To verify the null hypotheses of the study, the researcher firstly conducted a paired t-test between the pretest and posttest of the word association group and between the pretest and posttest of the lexical inferencing group on both learning and retention of the phrasal verbs separately and then conducted an independent samples t-test between the posttests of the word association group and the lexical inferencing group and between the delayed posttests of the word association group and the word association group. Prior to this, the normality of the distribution of scores within each group had to be checked.

In order to check the legitimacy of running a *t*-test, the two samples needed to be checked for the normality of the distribution of their scores. To this end, the descriptive statistics of the scores of the two groups both on the pretest, posttest and the delayed posttest are presented in tables 3, 4, 5, 6 and 7.

To check this normality within each group, the statistic of skewness was divided by the standard error; the results were -0.41 (-.177 / .427) for the word association group pretest, -0.0093 (-.004 / .427) for the word association group posttest, -0.135 (-.058 / .427) for the lexical inferencing group pretest, -0.416 (-.178 / .427) for the lexical inferencing group posttest, -0.028 (-.012 / .427) for the word association group delayed posttest,

**Table 7.** Descriptive Statistics of the Delayed Posttest Scores of the Word Association and Lexical Inferencing group

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>	
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>
Group 1	30	20.00	25.00	22.3333	1.74856	-.012	.427
Group 2	30	20.00	25.00	22.9000	1.29588	-.210	.427

**Table 8.** Paired Samples Statistics of the Word Association Group Pretest and Posttest

		<b>Mean</b>	<b>N</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Pair 1	VAR00001	4.4333	30	1.73570	.31689
	VAR00003	25.0333	30	1.60781	.29354

**Table 9.** Paired Samples *t*-Test of the Word Association Group Pretest and Posttest

		<b>Paired Differences</b>			<b>95% Confidence Interval of the Difference</b>				
		<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>	<b>Lower</b>	<b>Upper</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
Pair 1	AR00001 - VAR00003	-20.60000	2.42970	.44360	-21.86349	-19.33651	-46.438	29	.000

**Table 10.** Paired Samples Statistics of the Lexical Inferencing Group Pretest and Posttest

		<b>Mean</b>	<b>N</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Pair 2	VAR00001	4.7000	30	1.84110	.33614
	VAR00003	25.6333	30	1.58622	.28960

**Table 11.** Paired Samples *t*-Test of the Lexical Inferencing Group Pretest and Posttest

		<b>Paired Differences</b>			<b>95% Confidence Interval of the Difference</b>				
		<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>	<b>Lower</b>	<b>Upper</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
Pair 2	VAR00001 - VAR00003	-20.93333	2.37709	.43400	-22.16947	-19.69720	-48.234	29	.000

and -0.49 (-.058 / .427) for the lexical inferencing group delayed posttest. Therefore, both groups' skewness ratios fell within the acceptable range of -1.96 and 1.96.

This meant that running a *t*-test was legitimized. So, the researcher employed four paired *t*-tests and two independent *t*-tests for this procedure. Since this study has used 3 *t*-tests with each group, the level of significance changes according the related formula. We have to divide the level of significance or alpha level (.05) into the number of times *t*-test is used. Therefore, the level of significance will be changed from .05 to .008. The

results are demonstrated in tables 8, 9, 10, 11, 12, 13, 14, 15 16, 17, 18 and 19.

The paired *t*-test was conducted on correct phrasal verbs scores that compared each phrasal verb pre-test with its corresponding post-test. The purpose behind such an analysis was to see if the word association strategy had any effect on learning phrasal verbs. The tables 10 and 11 represent the descriptive and statistical analyses on learning the phrasal verbs through the lexical inferencing strategy respectively. The paired *t*-test between the pretest and the posttest showed considerable

**Table 12.** Paired Samples Statistics of the Word Association Group Pretest and Delayed Posttest

		Mean	N	Std. Deviation	Std. Error Mean
Pair 3	VAR00001	4.4333	30	1.73570	.31689
	VAR00003	22.3333	30	1.74856	.31924

**Table 13.** Paired Samples *t*-Test of the Word Association Group Pretest and Delayed Posttest

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 3	VAR00001 - VAR00003	-17.90000	2.41190	.44035	-19.15424	-16.64576	-40.649	29	.000

**Table 14.** Paired Samples Statistics of the Lexical Inferencing Group Pretest and Delayed Posttest

		Mean	N	Std. Deviation	Std. Error Mean
Pair 4	VAR00001	4.7000	30	1.84110	.33614
	VAR00003	22.9000	30	1.29588	.23659

**Table 15.** Paired Samples *t*-Test of the Lexical Inferencing Group Pretest and Delayed Posttest

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 4	VAR00001 - VAR00003	-18.20000	1.88277	.34375	-19.17908	-17.22092	-52.946	29	.000

difference and the difference was statistically significant. The significance achieved is smaller than our significance level at .008 and the null hypothesis was rejected. It also shows that based on the results achieved, there is an improvement for the means of learning of the target phrasal verbs by the word association group in comparison to its previous stage.

The paired *t*-test was conducted on correct phrasal verbs scores that compared each phrasal verb pre-test with its corresponding post-test. The purpose behind such an analysis was to see if the lexical inferencing had any effect on learning phrasal verbs. The tables 12 and 13 represent the descriptive and statistical analyses on learning the phrasal verbs through the word association strategy respectively. The paired *t*-test between the pretest and the posttest showed considerable difference and the difference was statistically significant. The significance achieved is smaller than our significance level at .008 and the null hypothesis was rejected. It also

shows that based on the results achieved, there is an improvement for the means of learning of the target phrasal verbs by the lexical inferencing group in comparison to its previous stage.

The delayed posttest was administered to measure the ability of the students to remember the phrasal verbs after two weeks. As the results demonstrate (descriptive and inferential statistics are presented in tables 12 and 13), the significance achieved is smaller than our significance level at .008 and the null hypothesis was rejected. It also shows that based on the results achieved, there is an improvement for the means of remembering of the target phrasal verbs by the word association group in comparison to its previous stage.

The delayed posttest was administered to measure the ability of the students to remember the phrasal verbs after two weeks. As the results demonstrate (descriptive and inferential statistics are presented in tables 14 and 15), the significance achieved is smaller than our

**Table 16.** Group Statistics of the Word Association and Lexical Inferencing Groups

	Grouping	N	Mean	Std. Deviation	Std. Error Mean
Group1		30	25.0333	1.60781	.29354
Group2		30	25.6333	1.58622	.28960

**Table 17.** Independent Samples *t*-Test of the Word Association and Lexical Inferencing Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means			Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)			Lower	Upper
Equal variances assumed	.120	.730	-1.455	58	.151	-.60000	.41236	-1.73273	.53273
Equal variances not assumed			-1.455	57.989	.151	-.60000	.41236	-1.73274	.53274

**Table 18.** Group Statistics of the Word Association and Lexical Inferencing Groups

	Grouping	N	Mean	Std. Deviation	Std. Error Mean
Group1		30	22.3333	1.74856	.31924
Group2		30	22.9000	1.29588	.23659

**Table 19.** Independent Samples *t*-Test of the Word Association and Lexical Inferencing Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means			Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)			Lower	Upper
Equal variances assumed	1.233	.274	1.608	38	.116	.96667	.60107	-.71600	2.64933
Equal variances not assumed			1.726	17.605	.102	.96667	.56000	-.70761	2.64094

significance level at .008 and the null hypothesis was rejected. It also shows that based on the results achieved, there is an improvement for the means of remembering of the target phrasal verbs by the lexical inferencing group in comparison to its previous stage.

The *t*-test of independent samples was conducted to see if there was any difference between two groups on learning of the phrasal verbs. According to the table 17, the results ( $t = -1.455$ ,  $df = 58$  and  $57.989$ ,  $p = .151 > .008$ , two-tailed) demonstrate that there was no significant difference between two groups in learning of the target phrasal verbs. It can thus be concluded that the presupposed null hypothesis was not rejected.

In the last phase of statistical analysis, the *t*-test of independent samples was conducted to see if there was any difference between two groups on retention of the

phrasal verbs. According to the table 19, the results ( $t = 1.608$  and  $1.726$ ,  $df = 38$  and  $17.605$ ,  $p = .116$  and  $.102 > .008$ , two-tailed) demonstrate that there was no significant difference between two groups in retention of the target phrasal verbs. It can thus be concluded that the presupposed null hypothesis was not rejected.

## DISCUSSION AND CONCLUSION

The current study aimed to investigate the effect of word association and lexical inferencing strategies on learning and retention of the phrasal verbs by EFL learners. Also, it was an attempt to compare the effect of two strategies between two experimental groups.

After the results obtained from the outcome of the

posttest and pretest analysis were considered about the effect of both of the word association and the lexical inferencing strategies on learning phrasal verbs, they indicated that both strategies had a significant effect on the subjects. Similarly, both strategies had a significant effect on retention of the target phrasal verbs by the subjects. After the result obtained from the comparison of the posttest between two groups were considered, it was indicated that there was not significant difference between the performances of the groups on learning of the phrasal verbs. The result obtained from the comparison of the delayed posttest between two groups indicated that there was no significant difference between the performances of the groups on retention of the phrasal verbs. Both of the strategies applied in this study were highly investigated on learning and retention of vocabulary. This research opened a new path by studying two strategies on learning and retention of phrasal verbs. This study emphasized the importance of the phrasal verbs as they had been ignored by students in EFL classes. The students found it so useful to achieve native-like speech. Moreover, this study indicated that students can learn phrasal verbs as easily as vocabulary and they found opportunities to learn new words through the word association strategy since this strategy introduced them the common objects related to each phrasal verb.

This result corroborates the findings of Cooper (1999). He showed that successful learners use an inferring strategy to learn idioms. The findings of his study can be interpreted as follows: using context clues is possibly a successful strategy in the teaching and learning of multiword expressions.

The results have important implications for language teachers and for designers of course books and materials. One of the most important implications is in the area of teaching and learning. This suggests that guessing from context is a strategy worth addressing in the classroom. However, when working on this skill, instructors need to raise awareness among learners not to excessively rely on one simple meaning of lexical items, but rather to check for other possible meanings in the given context (Laufer, 1997). Also, teachers need to ensure that context is rich enough in clues to facilitate learners grasping the right meaning of multi-word verbs. It demands us to make students explicitly aware of clues in finding the meaning of the phrasal verbs in the class in order to find the chance of increasing the amount of learning from the text. It is very important for teachers to train students, particularly EFL learners to use appropriate lexical inferencing strategies to deal with unknown phrasal verbs in various sentences. The best way is to check the meaning of the word with context clues to infer its appropriate meaning. Based on the findings, the use of some generative tasks like the traditional "sentence making" method should be practiced

by teachers.

Additionally, learners must know at least 95% of the words in the context to be able to make use of the clues which are available. Teachers do not have time in the classroom to teach the thousands of words necessary to use English communicatively, and so learners will have to do much of the learning on their own. If they make effective use of learning strategies, they will be much more successful in this endeavor (Nation, 2001).

Providing learners with the meanings of all new words or encouraging extensive and expansive dictionary work may not sound appropriate or adequate enough to stimulate vocabulary acquisition. The reason is that only vocabulary lists or word-translation pairs approaches preclude students from searching for and applying suitable strategies such as inferencing and meaning-guessing of words in their natural context or doing word analysis in unfolding the meaning of unknown words.

Therefore, most EFL vocabulary learning guides and instructional methodologies advocate a "teach vocabulary in context" approach, suggesting that EFL vocabulary should never be taught in isolation as in word lists. Most scholars assume that vocabulary lists accompanied by translated meanings create less opportunity for EFL learners to achieve autonomy in second language learning or could lead to confusion in getting the right contextual meaning, especially with polynyms, homophones, and homographs (McCarthy, 1990; Prince, 1996).

To make communication fluent and appropriate, we have to use collocation automatically. The knowledge of collocation is one's competence of English. This study introduced collocations related to the phrasal verbs and this helped the subjects to gain better fluency in speaking and achieve to higher level of communication in English.

In the field of syllabus design, this study can suggest the inclusion of sentence-level contexts to introduce and teach phrasal verbs. Regarding the type of contexts which are conducive to the best phrasal verbs retention, syllabus designers are urged to introduce phrasal verbs in clear contexts with ample clues. Not diminishing the gradual impact of intensive reading of natural material, such approach implies that rich contexts can be specifically used for phrasal verbs retention purposes.

Finally, it is hoped that the findings of this study will be of interest to instructors in similar instructional settings and prompt them to evaluate the existing practices and experiment with new approaches to teaching. It is also hoped that the results of this study will stimulate further research in phrasal verbs teaching.

### **Suggestions for further research**

1. This study has focused on the effect of sentential context on learning and retention of phrasal verbs. It

is important to note, however, that the incidental learning situation created in this study is not the same as incidental vocabulary learning from longer texts. It is recommended to investigate the effect of longer context on learning and retention of phrasal verbs.

2. This study investigated the transitive phrasal verbs because it aimed to study collocations related to phrasal verbs through the word association strategy. It is recommended to investigate the effect of the lexical inferencing strategy on intransitive phrasal verbs.
3. The researcher could choose only female participants. Thus, further research may take place on male students in order to generalize the findings of the present research.
4. Students at different proficiency levels or in different places could yield different results. It is recommended to investigate the effect of the word association and lexical inferencing strategies on learning and retention of phrasal verbs by different groups of learners at different proficiency levels (upper intermediate and advanced).

#### REFERENCES

- Cirock A (2003). Teaching phrasal verbs by Means of Constructing Texts. EFL News Letter; Retrieved November 10, 2003, from <http://www.eltnewsletter.com/column.shtml>.
- Cooper TC (1999). Processing of Idioms by L2 Learners of English. TESOL Quarterly, 33(2): 233-262.
- Daught M, Laufer B (1985). Avoidance of Phrasal verbs: A Case for Contrastive Analysis. Studies in Second Language Acquisition, 7, 73-79.
- Decapua A (2008). Grammar for Teaching. A guide to American English for Native and Non-native speakers. College of New Rochelle. New York: Library of congress.
- Engelbart SM, Theuerkauf B (1999). Defining Context within Vocabulary Acquisition. Language Teaching Research, 3, 57-69.
- Hsu SC (2004). Enhancing Incidental Vocabulary Acquisition through Guessing Words from Context...A case Study of Tainan Nursing Junior College Students. Unpublished Master's Thesis. National Kaohsiung Normal University.
- Istifci I (2005). Playing with the words: A study on word association. New horizons in EFL.
- Laufer B (1997). The Lexical Plight in Second Language Reading: Words You Don't Know, You Think You Know, and Words You Can't Guess. In J. Coady & T. Huckin (Eds.), *Second Language Vocabulary Acquisition* (pp. 20-34). New York, NY: Cambridge University Press.
- Lewis M (2001). Teaching Collocation: Further Development in the Lexical Approach. Hove, England: Thompson-Heinle Publications.
- McCarthy M (1990). Vocabulary. Oxford: Oxford University Press
- Nation ISP (2001). Learning Vocabulary in Another Language. Cambridge: Cambridge University Press.
- Ozgul B, Adulkadir C (2012). Teaching Vocabulary through Collocations in EFL Classes: The Turkey Case. International journal of research studies in language learning, 1(1):21-32.
- Prince P (1996). Second Language Vocabulary Learning: The Role of Context Versus Translation as a Function of Proficiency. Modern Language Journal, 80, 478-493.
- Shahzad A, Derakhshan A (2011). The Effect of Instruction in Deriving Word Meaning on Incidental Vocabulary Learning in EFL Context. World J. Engl. Lang. 1(1): 68-79.
- Shokouhi H, Askari H (2010). The Effect of Guessing Vocabulary in Reading Authentic Texts among Pre-university Students. Arizona Working papers in SLA and teaching, 17, pp.75 -89.
- Side R (1990). Phrasal Verbs: Sorting them Out. EFL Journal, 44(2), 144-152.
- Wolter B (2001). Comparing the L1 and L2 Mental Lexicon. A depth of Individual Word Knowledge Model. SSLA 23, pp.41-69.
- Zaid MA (2009). A Comparison of Inferencing and Meaning-guessing of New Lexicon in Context Versus Non-context Vocabulary Presentation. The Reading Matrix, 9(1):56-66.