

The Impact of Using Keyword Method on Vocabulary Learning and Retention: A Case of Iranian Intermediate EFL Learners

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To cite this article:

Zeynab Khalafi, Mohammad Reza Oroji. The Impact of Using Keyword Method on Vocabulary Learning and Retention: A Case of Iranian Intermediate EFL Learners. *International Journal of Language and Linguistics*. Vol. 4, No. 1, 2016, pp. 9-13.

doi: 10.11648/j.ijll.20160401.12

Abstract: This study investigated the impact of using Keyword Method on Iranian Intermediate EFL learners' vocabulary learning and memorizing. To achieve this end, 40 female students were selected from one English Language Institute in the form of two intact groups with the same number of students, namely control and treatment groups. The purpose was to teach them forty selected vocabulary items from 504 essential words for TOEFL during one semester. To do so, for the treatment group, the researcher made a booklet including the English words with their Persian keywords for the students, but the control group lacked this booklet. The data obtained through pre-test, post-test and delayed post-test were analyzed via a number of t-tests. The results of the data analysis indicated that the keyword method had a significant effect on both learners' vocabulary learning and retention. Most of the learners believed that their classroom turned into an interesting atmosphere by adding a little flavor of fun and motivating students.

Keywords: Keyword Method, Long Term Memory, Mnemonic Device, Short Term Memory

1. Introduction

Vocabulary learning does not seem feasible without being instructed how to specify different kinds of word knowledge. If students learn how to use key word methods, they have a better understanding of the words to make much more meaningful words and be able to create a memorable conversation without fear of forgetting words. There are two stages involved in this strategy: first, a connection based on phonetic similarities is made between a new word and a familiar word (keyword) and second, an imaginable link that associates the target word and the keyword together. To let the learned information stick to the brain, a good language learner must learn how to use learning strategies to overcome any language barriers otherwise that learners will certainly fail. These strategies offer particular advantages and the use of an appropriate learning strategy can surely enhance success with any learning task (Sabuncuoglu, 2013). These days, the keyword method has been one of the most popular and the comprehensive, researched foreign language vocabulary teaching methods that lies in strength of verbal

linkage and visual imagery in the memory process (Rodriguez & Sadoski, 2000; Pressley, Levin & Delaney, 1982). Avila & Sadoski (1996) believed that, one of the most extensively studied mnemonic devices (the key word method), has proven effective in increasing both immediate and delayed recall of second / foreign language vocabulary. It is crystal clear that the keyword method is famous for its versatility, that's why it is used in different areas of learning, including English, foreign-language learning vocabulary, science and social studies (Scruggs et al., 2010).

2. Purpose and Research Questions

The main purpose of this study was to find a significant statistical connection between the keyword method and learning vocabulary among Iranian intermediate EFL learners compared with the traditional method on one hand and to examine the long-term impacts of the key word method on the other hand. The findings would provide EFL teachers and learners with a more efficient and beneficial vocabulary learning method and help them achieve better performance and long term retention. Hence, the following research

questions were addressed:

1. Does the keyword method have any significant effects on Iranian Intermediate EFL learners' vocabulary learning?
2. Does the keyword method have any significant effects on Iranian Intermediate EFL learners' vocabulary retention?

3. Participants

40 female intermediate students served as the subjects of this study. They had already been assigned randomly into two equal groups (intact groups) and their ages ranged from 17 to 30 years old and their first language was Persian and Azeri. The participants of the study were students learning English at oneLanguage Institute in Zanjan. They were at the intermediate level in terms of English language proficiency. Their level was specified by a placement test at the institute based on the its criteria. All the students were similar in terms of educational backgrounds and socioeconomic situations.

4. Procedure

Forty participants who were ranked as intermediate level were chosen in the form of two intact group classes with equal number of students, namely experimental and control groups. This study was executed for a period of a month (8 sessions) in Parseh language institute where students

received English classes for 90 minutes and two sessions a week. The process was explained completely by the researcher in Persian and enough time was given for each group to avoid any misunderstandings and ask their questions. After that, the control group students were asked to repeat the words continually after the teacher then they would practice memorizing the persian meanings together. Finally, they were asked to prepare themselves for the next session by reviewing and memorizing all the words and meanings.

At first the contents of the booklet which included forty 504 essential vocabulary with the persian keywords was explained to the experimental group with some examples. Eventually, both groups were asked to be prepared for the post-test or the final exam in the last session.

As the last step, a delayed post-test was given to the experimental group after two weeks to see the wonderful impact of the using keyword method on the learners memorization and retention.

5. Results

The data were analyzed using independent samples and paired-samples t-test which assumes normality of the data. The normality assumption was met. As displayed in Table 1 the ratios of skewness and kurtosis over their respective standard errors were within the ranges of ± 1.96 .

Table 1. Testing Normality Assumption; Pretest, Posttest and Delayed Posttest of Vocabulary by Groups.

Group		N	Skewness			Kurtosis		
		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Experimental	Pretest	20	.631	.512	1.23	.344	.992	.35
	Posttest	20	-.218	.512	-.43	-1.391	.992	-1.40
	Delayed	20	-.746	.512	-1.46	.862	.992	.87
Control	Pretest	20	.795	.512	1.55	.357	.992	.36
	Posttest	20	.875	.512	1.71	-.564	.992	-.57

Pretest of Vocabulary

An independent t-test was run to compare the experimental and control groups' means on the pretest of vocabulary in order to prove that they were at the same level of vocabulary knowledge prior to the main study. Based on these results displayed in Table 2 it can be concluded that the experimental ($M = 15.65$, $SD = 4.41$) and control ($M = 16$, $SD = 4.19$) had almost the same means on the pretest of vocabulary.

The results of the independent t-test ($t(38) = .25$, $p = .921$, $r = .041$ representing a weak effect size) (Table 3) indicated

that there was not any statistically significant difference between the two groups' means on the pretest of vocabulary. Thus, it can be claimed that they were at the same level of vocabulary knowledge prior to the main study.

Table 2. Descriptive Statistics; Pretest of Vocabulary by Groups.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Experimental	20	15.65	4.416	.987
	Control	20	16.00	4.193	.938

Table 3. Independent Samples t-test, Pretest of Vocabulary by Groups.

	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Equal variances assumed	.031	.861	.257	38	.799	.350	1.362	-2.40 3.10
Equal variances not assumed			.257	37.898	.799	.350	1.362	-2.40 3.10

Post Test of Vocabulary

The results clearly showed that there was a significant difference between the two groups' means on the post-test of vocabulary learning of the independent t-test, representing a large effect size ($t(38) = 11.12$, $p = .000$, $r = .87$). Therefore,

we can say with confidence that "the keyword methods" improved Iranian intermediate EFL learners' vocabulary learning. So the first null hypothesis of the study was rejected.

Table 4. Independent Samples t-test, Posttest of Vocabulary Learning by Groups.

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	2.834	.101	11.127	38	.000	15.250	1.371	12.476	18.024
Equal variances not assumed			11.127	34.655	.000	15.250	1.371	12.467	18.033

A paired-samples t-test was run to compare the experimental group's means on the post-test and delayed post-test of vocabulary in order to probe the second research question. Based on these results displayed in Table 5 it can be concluded that the experimental group ($M = 36.20$, $SD = 2.39$) had a higher mean on the delayed post-test than post-test ($M = 35$, $SD = 3.59$) on the post-test of vocabulary.

Table 5. Descriptive Statistics; Posttest and Delayed of Vocabulary.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Vocabulary	Delayed	36.20	20	2.397	.536
	Post-test	35.00	20	3.598	.805

The results of the paired-samples t-test ($t(19) = 3.14$, $p = .005$, $r = .58$), in other words, there is a significant difference between the experimental group's mean on the post-test and delayed of vocabulary it means that "the keyword method" has a significant effect on Iranian Intermediate EFL learners' vocabulary retention, Thus the second null-hypothesis was rejected.

6. Discussion and Conclusion

The main purpose of this study was to lead EFL teachers and learners to notice the circumstance of vocabulary learning and to enhance their improvement by using the key word method. It is an attempt by teachers to match their vocabulary teaching style with learners' learning style. Mnemonics or the art of memory is considered to be a deep mental interest. This technique provides a powerful device regarding to words which have a high degree of "image ability" which gives this ability to the learners to make some kind of semantic links between tow word pairs (Ellis, 1997).

The findings of this study were in line with Shen's (2010) outcomes that coding theory and visual learning play a great role in vocabulary retention. The results of this study are congruent with those of other studies conducted by (Scruggs, Mastorpiieri, Berkeley, & Marshak 2010; Shapiro and Waters, 2005) which have emphasized that, mnemonic, is any process or procedure proposed to improve long term memory. It has also played an important role in learning process by which

learners are error less as much as possible in the first stages of the learning process, which was first applied to the fact of renovation of memory and its impairments (Anderson & Craik, 2006). According to Van Hell and Mahn (1997), a major degree of forgetting is associated with the keyword mnemonic strategy compared to traditional strategies such as: rote method.

Empirical studies have been displayed that Mnemonics can be used to improve learning and memory of these kind of students with disabilities and those of educational failure that have particular remembering and retention difficulties. However, Sagarra, and Alba (2006) illustrated that deeper processing necessitate different vocabulary learning strategies, requiring through form and meaning associations, that is, the keyword method yield the best retention.

However, this finding of the study was in sharp contrast to those of the studied carried out by Campus, Gonzales & Amor (2003); Pressley and McCormick (1979). They have indicated that the key word method is less effective than rote method. In other words, their statistical results have not shown significant differences among the students who were taught based on mnemonics (key word method) with the ones who were not.

In the end, this article administered the statistical results of data analysis procedure and also snuggled detailed discussion on the findings of the study. Based on what was mentioned first and also the results that were obtained, the impact of using the keyword method on vocabulary learning and retention of the Iranian intermediate learners in a private English language institute, was accepted. Respectively, it should be noted that, having enough information about new learning strategies can have a wonderful and undeniable effect on students' learning abilities and it can make a change on the level of their motivation and satisfaction in English language learning classes.

In all the four skills, vocabulary is a primary concern in L2 settings because it plays a prominent role in classroom success (Krashen, 1983). EFL learners frequently complain that it's not really practical for learning new words in a short time. The present study considered two hypotheses:

H01. The keyword method doesn't have any significant effect on the Iranian Intermediate EFL learners'

vocabulary learning.

H02. The keyword method doesn't have any significant effect on Iranian Intermediate EFL learners' vocabulary retention.

The results rejected both null hypothesis. In conclusion, it can be stated that the keyword method that used among the participants in this study was shown to be more successful and effective in Foreign language vocabulary learning than other methods at intermediate levels. Hence, these significant findings were obtained from this study:

- The participants in the experimental group, who received treatment based on keyword method, were able to more successfully learn the vocabulary items and preserve them easily.
- A significant difference was seen between the experimental group and the control group in terms of vocabulary learning. It means that, there is a significant difference observed between two groups in terms of the keyword method influences on the subjects vocabulary learning.

Therefore, this study seems to have almost been able to show that the use of the mnemonics especially "keyword method", which is an innovative method, can extremely reduce learners' problems and misunderstandings in the acquisition and retention of L2 vocabularies. The results of this study showed that teachers with using mnemonics can help learners in terms of vocabulary learning, and create an interesting and fun environment in the classroom without any concern of understanding and learning compared to the teachers and the learners without using the mnemonics.

In the contemporary world today, the significance of a new idea is only judged through its utility and application. So this study was an attempt to investigate the significant effect of using the keyword method on Iranian intermediate EFL students' vocabulary learning.

The present study has some pedagogical implications for all EFL teachers who are looking for modern and the best teaching methods with continuous efforts. This study is probably a call for language tutors, researchers and practitioners in language teaching and learning to pay more attention to L2 vocabulary teaching methods. The findings of this study recommended that the teachers be informed of this technique and apply this effective technique of vocabulary learning in their classes and try to update themselves with the latest achievements in the endless world of Education.

Let's remind ourselves again and again, according to Beetlestone (1998), it is our duty as a teacher to lead all learners to achieve high levels of success with operating creative routes and opportunities as a right for them.

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