

Short- and Long-term Effects of Repetition Strategies on Vocabulary Retention

Sultan Altalhab*

College of Education, King Saud University, Saudi Arabia

Corresponding Author: Sultan Altalhab, E-mail: saltalhab@ksu.edu.sa

ARTICLE INFO

Article history

Received: December 27, 2017

Accepted: March 13, 2018

Published: March 13, 2018

Volume: 9 Issue: 2

Advance access: March 2018

Conflicts of interest: None

Funding: None

Key words:

Vocabulary,
Repetition,
Retention,
Oral,
Written

ABSTRACT

This experimental study examines the role of oral and written repetition strategies in consolidating new vocabulary in the classroom context. The participants in this study were divided into three treatment groups: oral, written and oral+written. A pretest and three delayed post-tests given at one day, one week and six weeks intervals were utilised in the study. The short and long-term retention of 12 unknown words was investigated over one semester. The results revealed that all three types of repetition strategies were effective in retaining new vocabulary in the short-term. However, in the long-term, the oral+written group achieved superior results while the oral group was the least effective. The findings on the effectiveness of employing these strategies across two levels of vocabulary knowledge (meaning recall and form recall) are discussed. These findings demonstrate the importance of repetition strategies in vocabulary learning.

INTRODUCTION

According to the taxonomy of Schmitt (1997) and Nation (2001), learners need to deploy two types of VLSs: “discovery” and “consolidation” strategies in their vocabulary learning. Consolidation strategies are an essential part of vocabulary learning, and utilised to retain new words; for example, repetition strategies, the keyword method and the use of note books. Repetition strategies are crucial, especially when starting to learn vocabulary, according to empirical research in this area (Gu, 2003). It is important to revise new lexical items recently introduced in the classroom and to deploy repetition activities, such as oral and written strategies which might lead learners to better memorise the new vocabulary (Takač, 2008). Milton (2009:227) shares the same view that, ‘multiple repetition may not help the initial learning of words, but may help them stay in the memory after learning’.

Most studies (e.g. Schmitt, 1997) on vocabulary learning strategies show the high value of repetition strategies, whether written or oral, according to learners’ responses in these studies. This shows the key role of repetition strategies in vocabulary learning based on learners’ perspectives. Nevertheless, few studies have investigated the effectiveness of these strategies in vocabulary learning. Although several studies have been conducted on the use of certain consolidation (memory) strategies, such as the key word method (e.g. Rodríguez & Sadoski, 2000) and the use of note books

(e.g. Walters & Bozkurt 2009), little research has considered the effectiveness of two types of repetition strategies in EFL vocabulary retention. Many studies employ delayed post-tests to assess long-term vocabulary learning within a short period of time after the treatment (e.g. one week); therefore, it is thought that having delayed posts after a period of six weeks is more helpful in providing an indication of long-term vocabulary retention, as will be discussed.

PREVIOUS RESEARCH

Vocabulary retention is an issue that has been widely discussed in the literature. In vocabulary research, several studies have examined the different strategies and tasks in order to suggest the most effective way to consolidate new words. One of the key studies in this area is Hulstijn and Laufer’s (2001) study, comparing reading and writing tasks, and which concluded that the ‘amount of task-induced involvement load’ positively affects vocabulary retention, mainly in the composition task. While their study considered writing sentences and did not involve the written repetition of a list of words, Hummel (2010) explored a rote-copying task involving a list of words and two types of translation (L1 to L2, L2 to L1). Hummel (2010) found that all these tasks led to a positive influence in terms of vocabulary retention; however, the rote-copying task achieved more significant results.

Other studies explored the role of using certain activities in vocabulary retention (e.g. Folse, 2006; Peters, 2014). The findings in these studies highlight the role of writing new words in vocabulary retention.

Other studies have examined the role of oral repetition in vocabulary retention. For example, Rodríguez and Sadoski (2000) who examined the effect of oral repetition, context, keyword and context/keyword on vocabulary retention, found the latter strategy to be most effective. Similarly, Khoii and Sharififar (2013) compared semantic mapping and memorisation and found the latter to be superior. It should be noted that in this study, rote rehearsal involves memorising new words by repeating them silently.

As this review indicates, some of these studies (e.g. Hummel, 2010) did not use vocabulary tests to ensure that the words used in the study were unknown to the participants. Instead, they assumed that the words used were unknown according to the participants' English level. Schmitt (2010:179) asserted the high importance of employing words that are unknown to the participants in vocabulary research, suggesting that any gain in vocabulary learning is possibly due to the treatment used.

The number of studies exploring the role of repetition in vocabulary retention is more limited compared to the number of studies investigating the role of repetition in vocabulary learning while reading. It also can be noted that these studies compared writing the new words as a task including written repetition with other types of tasks while other studies compared oral repetition with other strategies. Therefore, the present study examines both types of repetition strategies, oral and written strategies, and their role in vocabulary retention, which has not received much attention in the vocabulary research. There is also a dearth of studies that explore the effect of these two strategies on consolidating certain aspects of word knowledge. The current study, hence, examines the following questions:

1. Can repetition strategies lead to short and long-term vocabulary retention?
2. Which type of repetition strategies (oral, written, oral + written) is more effective in vocabulary retention, in terms of meaning recall and form recall (spelling)?

METHODOLOGY

Participants

Eighty-six male Saudi intermediate school students were involved in this study. All these students were native speakers of Arabic who started learning English at the age of 9. They were from four different intermediate schools in Riyadh, Saudi Arabia. Initially, 98 participants took part in the study but the data of 12 participants were removed from the data analysis since the individuals were absent from one of the post-tests.

Materials

Twelve low frequency words were used in the study. The number of words was chosen based on the time allocated

for the experiment. In order to ensure that these words were unknown to the participants, a pre-test was developed to measure the knowledge of the target items. The test consisted of 12 words with two missing letters. The participants needed to provide these letters as well as the meaning in Arabic.

Procedure

Before starting the experiment, the participants sat a pre-test. The participants were divided into three groups: oral, written and oral + written. Each group was asked to repeat the target words five times according to the type of group they were involved in. For example, the oral group repeated the target words along with their translation orally while the written group repeated the new words by writing them down on a piece of paper. The oral + written group practised oral and written repetition simultaneously. Five times as many repetitions were decided based on the time allocated for the experiment, and the teachers also thought that having more than this number of repetitions would be time consuming as well as possibly boring for the students. The participants had three delayed recall post-tests and had not been informed about these tests before hand, in order to avoid intentional learning of the target items. It was thought that utilising these tests would help to track the vocabulary retention rate.

The first test was administered on the following day of the treatment. It was thought that the immediate test would not be sensitive enough to examine short-term vocabulary retention due to the nature of the treatment used in this study, thus a following day post-test was administered instead. The second test took place after a week and the last one after six weeks to assess the retention over time. Schmitt (2010) suggests that a delay of three weeks could indicate durability of learning, therefore, a six-week delayed post-test was employed.

RESULTS AND DISCUSSION

Data obtained from the tests were analysed using SPSS. A One-Way ANOVA test was used to find the statistical differences between the means of the three test groups (oral, written and oral+written). The results revealed that using the repetition strategies (oral, written, oral + written) yielded a high percentage of retention rates in the next day recall test. As the students started with zero knowledge of the target items, Table 1 shows the total retention gained from the three types of repetition strategies in the recall tests. Since the delayed post-tests (after one week & six weeks) provide a good indication of vocabulary retention, the focus in presenting the results is on these tests. All of these repetition strategies resulted in significant differences in the one week ($F(2.84) = 10.787, p = 0.000$) and six weeks ($F(2.84) = 9.753, p = 0.000$) delayed post-tests results.

In general, all participants achieved high scores on the next day test. For the other delayed post-tests, the students in the oral group gained little retention of the target items in the six-week delayed test, about (18 %) while their achievement in the one-week delayed test was about (33 %). In comparison, students in the written group achieved higher

scores in these two tests, about (53% & 31%) respectively. The students in the oral+written group produced the highest scores, about (62%) in the one-week delayed post-test and about (42%) in the six week delayed post-test.

These results provide an answer to the first research question. Repetition strategies can lead to short and long-term vocabulary retention. It seems normal for the learners' ability to retain target words to decrease over time following the treatment, with Table 1 showing a decline in the participants' scores in the delayed post-tests. However, the oral+written repetition strategy led to greater learning. Although the number of repetitions used in the study tended to be small (five times), the learners were able to produce high outcomes in the recall tests, mainly in the written and oral+written groups. This finding agrees with other studies on using writing (e.g. Hummel, 2010) as a strategy to retain new vocabulary. Having the oral strategy group as the least effective strategy in the present research supports the findings of previous research on oral strategy (Rodríguez & Sadoski, 2000; Khoi & Shariffar, 2013). It should be noted that the oral+written group consumed more time and was more involved in practising the repetition strategy than the other groups, mainly the oral group, and they achieved more significant results in all the recall tests. This highlights the role of activity engagement as Hulstijn and Laufer (2001) also found in their study. Therefore, it can be suggested that combining both strategies (oral and written) can provide better vocabulary learning gains.

The other finding that answers the second research question is that there were statistical differences between the effectiveness of each type of repetition strategy in vocabulary retention, that is, in terms of meaning recall and form recall (spelling). Table 2 represents the high scores produced in the one day delayed post-test by both written (about 85%) and oral+written (about 80%) groups for meaning recall while the oral group achieved (about 46%).

The figures for meaning recall in the one and six week delayed post-tests were relatively similar for the written and oral+written groups; however, the oral group indicated an attrition for meaning, mainly in the six week delayed post-test (about %11). There were significant differences between these groups in the delayed post-tests, with ($f(2.84) = 6.71, p = 0.000$) in the one week test, and for the six week test ($f(2.84) = 4.48, p = 0.000$).

Table 1. Mean vocabulary gains after employing oral, written, oral + written repetition strategies

Session	Repetition Strategy	Vocabulary Gains		
		M	SD	%
One day delay	Oral	7.95	3.109	44.44
	Written	12.82	4.210	73.4
	Oral + written	14.68	3.410	81.72
One week delay	Oral	5.95	3.031	33.58
	Written	9.38	4.579	53.7
	Oral + written	11.19	4.086	62.54
Six week delay	Oral	3.14	2.253	18.18
	Written	5.56	3.735	31.81
	Oral + written	7.48	4.007	42.11

For form recall (spelling), there were similar high gains for both written and oral+written groups in the next day test. The oral+written group achieved less attrition in all delayed post-tests than the written group. The results related to the oral group showed attrition in the one and six week delayed post-test. The differences between these groups in these delayed post-tests were significant, ($f(2.84) = 13.75, p = 0.000$) in the one week test with ($f(2.84) = 13.67, p = 0.000$) for the six week test. It can be noted that the participants achieved better gains in spelling than meaning. Certain aspects of word knowledge can be learned before others (Schmitt, 2010). Doczi and Kormos (2016) argue that learners develop word form and then meaning for low frequency words, according to previous research.

In summary, although these repetition strategies, especially the written and oral+written strategies, helped to retain meaning and spelling of target items in the long-term, the figures as shown above in Table 2 show a decline in the six week delayed post-tests. In other words, the participants' ability to remember the meaning and the spelling of the new vocabulary had decreased gradually overtime. This refers to the importance of recycling the newly learned vocabulary in order to consolidate it for longer periods of time. The findings of this study suggest that oral+written and written repetition strategies tend to be the most effective strategies for retaining the meaning and spelling of a new vocabulary, with the oral repetition strategy the least effective.

PEDAGOGICAL IMPLICATIONS

The present study examined the role of using different types of repetition strategies (oral, written, oral+written) in vocabulary retention. It aimed to explore which of these strategies can lead to short- and long-term retention in terms of meaning recall and form recall (spelling). The main pedagogical implication of the current research is based on the superiority of oral+written and written repetition strategies over oral repetition strategy for vocabulary learning in the long run. This refers to the importance of considering these types of strategy both inside and outside the classroom in order to help retain new words. Focusing on certain discovery strategies, such as consulting the dictionary or guessing the meaning from context helps to find meaning; however, learners need to consolidate this information. One of the possible strategies for reaching this goal, and based on the findings of this study, is to deploy repetition strategies, mainly the oral+written and written strategies.

Another implication of the study is related to the positive effect of repetition strategies on L2 vocabulary gains in terms of meaning and form. Teachers can then consider the importance of repetition strategies for consolidating these aspects of knowing a word. Teachers may deploy these strategies with difficult words that learners struggle with. For example, long words, which might be more difficult to learn because there is more to learn and remember (Laufer, 1997). This study has shown the value of these strategies in retaining these two aspects (meaning and form) and they might be useful in learning other aspects, for instance, retaining collocations, as found in Durrant and Schmitt's (2010) study.

Table 2. Mean vocabulary gains in terms of meaning recall and form recall (speling) after employing oral, written, oral + written repetition strategies

Session	Repetition Strategy	Type of Vocabulary Knowledge					
		Form recall (spelling)			Meaning recall (translation)		
		M	SD	%	M	SD	%
One day delay	Oral	5.64	2.083	47.34	2.73	1.352	46.21
	Written	8.70	2.984	72.72	5.09	1.071	85.35
	Oral + written	10.16	2.567	83.33	5.16	2.737	80.64
One week delay	Oral	4.05	2.171	34.46	1.73	1.202	30.3
	Written	5.70	3.477	47.97	3.76	1.696	63.63
	Oral + written	8.41	3.241	69.08	3.38	2.791	51.61
Six week delay	Oral	2.36	1.916	20.83	0.55	0.671	11.19
	Written	3.52	2.874	30.05	1.67	1.671	29.29
	Oral + written	6.16	3.163	52.68	1.19	1.355	19.89

Overall, this study provides empirical evidence that repetition strategies can provide short and long-term vocabulary retention. The study has revealed that repetition strategies, mainly oral+written and written, positively affect vocabulary retention. Furthermore, these two strategies appear effective in recalling two aspects of word knowledge, meaning and form. Nevertheless, the oral repetition strategy led to attrition of vocabulary gains in the long-term. It might be concluded that employing repetition strategies seems not to be a waste of time and effort, but, on the contrary, is a rather helpful consolidation strategy in vocabulary learning.

ACKNOWLEDGEMENT

This research project was supported by a grant from the Research Centre in the College of Education, Deanship of Scientific Research at King Saud University.

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