



The effectiveness of post-reading word-focused activities and their associations with working memory



Yingli Yang ^{a,*}, Natsuko Shintani ^b, Shaofeng Li ^c, Yingyi Zhang ^d

^a School of International Studies, University of International Business and Economics, Room 1304, Chengxin Building, No. 10, Huixin Dongjie, Chaoyang District, Beijing, 100029, China

^b Faculty of Education and Social Work, University of Auckland, Room 559, N Block, 74 Epsom Ave., Epsom, Auckland 1023, New Zealand

^c Faculty of Arts, University of Auckland, Room 445, Arts 1, 14A Symonds St., Auckland 1010, New Zealand

^d School of International Studies, University of International Business and Economics, Chengxin Building, No. 10, Huixin Dongjie, Chaoyang District, Beijing, 100029, China

ARTICLE INFO

Article history:

Received 23 August 2016

Received in revised form 3 September 2017

Accepted 7 September 2017

Keywords:

Vocabulary acquisition
Form-focused instruction
Working memory
Task involvement load

ABSTRACT

The study investigates the effects of post-reading word-focused activities on vocabulary acquisition and the extent to which the effects are mediated by learners' working memory. Eighty-one university students were assigned to three experimental groups (Gap-fill, Sentence-writing, Comprehension-only) and a Control group. After completing a reading comprehension task, the Gap-fill and Sentence-writing groups completed word-focused activities, and the Comprehension-only group answered an essay question without receiving any form-focused instruction; the Control group only completed the tests. The Vocabulary Knowledge Scale developed by Paribakht and Wesche (1997) was employed to measure treatment effects, and a reading span test was used to measure the learners' working memory capacities. The results show that on the immediate post-test, the Sentence-writing group performed the best, followed by Gap-fill, Comprehension-only, and Control. On the delayed post-test, the Sentence writing and Gap-fill groups equally outperformed the two other groups. Linear regression analysis revealed that working memory significantly predicted the gain scores of the Comprehension-only and the Gap-fill groups on the immediate post-test. Our results partially confirm the Task Involvement Load Hypothesis and suggest an interaction between working memory and the effects of different types of vocabulary instruction.

© 2017 Published by Elsevier Ltd.

1. Introduction

A growing number of empirical studies have shown that word-focused activities are likely to lead to better vocabulary learning than meaning-oriented input alone (Laufer, 2003). Word-focused activities can take various forms, such as a gap-fill activity, L1-L2 (or L2-L1) translation practice, writing sentences using target words, completing sentences with target words after looking up their meaning, and answering reading comprehension questions requiring knowledge of the target vocabulary (see Laufer, 2009). Previous studies on vocabulary learning have investigated the effects of stand-alone word-focused activities (Kim, 2011; Laufer, 2003). However, such activities can also be provided as post-task form-focused

* Corresponding author.

E-mail addresses: yyluibe@126.com (Y. Yang), n.shintani@auckland.ac.nz (N. Shintani), s.li@auckland.ac.nz (S. Li), 648652062@qq.com (Y. Zhang).

instruction (FFI; Spada & Lightbown, 2008). Laufer (2005) emphasizes the importance of explicit form-focused word activities as a follow-up remedy of vocabulary learning. She suggests that through repeated practice, the passive vocabulary knowledge afforded through a preceding, meaning-oriented task can be reactivated and reinforced. Schmitt (2008) also proposes that engaging learners in elaborate word-focused activities leads to better retention of vocabulary items than simply completing a meaning-focused task.

Although previous studies suggest that word-focused activities are generally effective in vocabulary acquisition, not all activities may be equally effective for vocabulary learning. According to the Involvement Load Hypothesis (Laufer & Hulstijn, 2001), tasks that trigger higher involvement load are more effective in vocabulary learning than tasks that involve lower levels of processing. Elaborate processing and greater amount of attention paid to the target words increase chances of vocabulary learning.

Most of the previous studies on task involvement load investigated tasks as a stand-alone word-focused activity (Hulstijn & Laufer, 2001, 2003; Kim, 2011), and few examined the effects of post-reading activities on vocabulary learning. Furthermore, few studies on task involvement load have examined the role cognitive individual differences play in mediating the effects of tasks of different involvement loads on vocabulary acquisition. Since the components in task involvement load, particularly “*evaluation*”, require the allocation of attention to identify form-meaning mapping, a condition conducive to vocabulary acquisition (Martínez-Fernández, 2008), we assume that working memory, a variable that is responsible for manipulating and allocating attention in various cognitive tasks, may mediate the effects of tasks of different involvement loads. The present study seeks to explore how task-induced involvement (a task-internal factor) and working memory (a learner-internal factor) affect vocabulary learning in post-reading word-focused activities.

2. Literature review

2.1. Post-reading word-focused activities and task involvement load

One way of differentiating types of vocabulary activities is through the criteria of the task-induced involvement. Laufer and Hulstijn (2001) hypothesize that vocabulary learning is dependent on the level of involvement, a motivational-cognitive construct that encompasses “*need*”, “*search*” and “*evaluation*”. According to Hulstijn and Laufer (2001), *need* is the motivational factor in task involvement load. Moderate *need* (index of 1) is externally necessitated (e.g. the task requires the learner to use a word in a sentence), whereas strong *need* (index of 2) is intrinsically motivated (e.g. when the learner feels the need to look up a word in the dictionary when writing a composition). *Search* and *evaluation* are the cognitive factors of involvement associated with attention allocation and manipulation. *Search* is the attempt to find the meaning or the form of the unknown L2 word to complete a task by consulting external resources. It is either present (index of 1) or absent (index of 0). *Evaluation* entails the comparison of a particular meaning of a word with its other meanings or selecting words from a list of many words to fit in the context (e.g. gap-fill tasks) or assessing the appropriateness of a word in a given or original context (e.g. writing a composition with the new words). *Evaluation* exists in two forms: moderate (index of 1), when learners assess differences among word meanings, and strong (index of 2), when learners evaluate the fitness of new words in an original or given context. The sum of the scores for the three components is called the involvement index of the task (ranging from 0 to 5) (Hulstijn & Laufer, 2001; Kim, 2011). It was hypothesized that activities that have higher involvement load values will be more effective in vocabulary learning than those with lower values.

To verify their hypothesis, Hulstijn and Laufer (2001) compared the effects of three tasks that were designed to require three levels of involvement: 1) reading comprehension with glosses of target words with an involvement load index of 1,¹ 2) reading comprehension with gap-fill with an involvement load index of 2,² and 3) writing a composition with the target words with an involvement load index of 3³ in two parallel experiments, one conducted in Israel and the other in the Netherlands. The difference between the three tasks is that task1 induced no *evaluation*, task 2 induced moderate *evaluation*, and task 3 entailed strong *evaluation*. In the Hebrew-English experiment, the Composition group demonstrated significantly higher scores than the Gap-fill group, which in turn scored significantly higher than the reading group, thus confirming the Task Involvement Load hypothesis. In the Dutch-English experiment, although both the Composition group and the Gap-fill group improved, only the Composition group significantly outperformed the reading group. The results indicate that “*evaluation*” may be a determining factor for vocabulary learning. However, since the time to complete the tasks was not controlled in this study (the tasks took 40–45, 50–55, and 70–80 min respectively), it might be a confounding variable that led to the variation in vocabulary acquisition. Furthermore, the results of the two experiments were not entirely consistent with the Involvement Load Hypothesis. The Hebrew-English experiment fully supported the Involvement Load hypothesis, whereas the Dutch-English experiment only partially confirmed the

¹ The task induced moderate need (index of 1), since the learners need to know the meaning of the target words in order to complete the reading comprehension task, but no search or evaluation. The total involvement load index is 1.

² In the reading comprehension with gap-fill activity, ten target words were deleted from the text. The students were required to read the text, fill in the gaps and complete the reading comprehension questions. This task induced moderate need (index of 1), no search, and moderate evaluation (index of 1). The total involvement load index is 2.

³ In the writing activity, since the target words have to be used in a new context, it induced a moderate need (index of 1), no search and a strong evaluation (index of 2). The total involvement load index is 3.

Download English Version:

<https://daneshyari.com/en/article/4941300>

Download Persian Version:

<https://daneshyari.com/article/4941300>

[Daneshyari.com](https://daneshyari.com)