Task type effects on English as a Foreign Language learners' acquisition of receptive and productive vocabulary knowledge

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ABSTRACT

This study investigates how task type affects English as a Foreign Language (EFL) learners' acquisition of receptive and productive vocabulary knowledge. Five intact classes of EFL learners were randomly assigned to one of five tasks of learning 18 target words through sentence reading exercises. The task design was based on the involvement load hypothesis (ILH), which proposes need (N), search (S) and evaluation (E) as components of involvement, claiming acquisition of unfamiliar words to be conditional upon the amount of task-induced involvement. In terms of presence and strength of each component, the tasks induced the same or different involvement loads: control (−N, −S, −E), definition (+N, −S, +E), combining (+N, −S, +E), translation (+N, −S, +E) and writing (+N, −S, ++E). Receptive and productive knowledge of the target words was measured shortly after the tasks were completed. All the output tasks were found to be more effective than the control task regardless of type of vocabulary knowledge. The relative effectiveness of the output tasks was partly contingent upon the type of vocabulary knowledge measured. The study concludes that factors like contextual clueing and frequency of word encounters other than involvement load may contribute to EFL learners' vocabulary acquisition.

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1. Introduction

Vocabulary is widely regarded as a crucial part of language learning by virtually all second language (L2) learners and their teachers. Consequently, it is important for language teachers to develop and deploy appropriate learning tasks in promoting successful vocabulary learning among language learners. Therefore, it is necessary for language researchers to explore why certain tasks are more effective than others in L2 vocabulary acquisition. One claim has been that the acquisition of new words is related to the degree of involvement with a task. This is known as the Involvement Load Hypothesis (ILH, Laufer & Hulstijn, 2001).

The ILH predicts that the greater the demands that the word learning task places on the second language learner, i.e. the greater its involvement load, the more likely the word will be learned. The fact that this hypothesis is clear, of a precise nature and can be operationalized has contributed a great deal to the attention it has received in second language vocabulary research and has rightly proven to be a major development in the field.

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In testing the ILH, much research was done to compare several word learning tasks assumed to have different involvement loads (e.g., Bruton, 2007; Huang & Lin, 2014; Hulstijn & Laufer, 2001). At least two research directions, however, are worthy of more attention. The ILH suggests that the presence of an involvement component, whether moderate or strong, always contributes more to word learning than its absence, but little research was conducted to investigate this issue (e.g., Martínez-Fernández, 2008; Vidal, 2011). The ILH also suggests that, regardless of word learning task type, the same presence of an involvement component always leads to the same amount of word learning. Nevertheless, little research was done to investigate this issue, either (i.e., Folse, 2006; Kim, 2008). For these reasons, this study investigated whether several word-focused output tasks were all more effective in English as a Foreign Language (EFL) learners' receptive and productive vocabulary acquisition than a control task (with no focus on the target words). It also explored whether the output-induced involvement loads made a difference in the relative effectiveness of each output task.

2. Literature review

The ILH focuses on second language vocabulary learning in task-based settings. Briefly, according to Laufer and Hulstijn (2001), involvement load consists of need (N), search (S), and evaluation (E). Need is the drive to comply with the task requirements related to unknown words. Search is the attempt to find the match between the form and meaning of an unknown word. Evaluation involves a decision about the meaning of a given word, a comparison of its meaning with those of other words or its proper use in the specific context. These components are quantifiable in terms of prominence. If a component is absent ($-$), it gains a score of 0. If there is a moderate presence ($+$), the component gains a presence of 1. If there is a strong presence ($++$), the component gains a presence of 2. The higher the scores of need, search, and evaluation are, the greater the involvement load in learning an unknown word is. In testing the ILH, most L2 incidental vocabulary learning tasks were related to reading texts, though a few other designs were found (e.g., Vidal, 2011). The majority of the extant studies used L2 reading passages as stimuli, following Hulstijn and Laufer (2001).

Hulstijn and Laufer (2001) designed three passage-related incidental vocabulary learning tasks: reading ($+N, -S, -E$), reading plus fill-in ($+N, -S, +E$), and composition writing ($+N, -S, ++E$). Without controlling for task time, they compared these tasks in their conduciveness to EFL receptive vocabulary knowledge in the Israeli and Dutch settings. It was found that the writing task was superior to the other two in both settings, fully supporting the ILH. The reading plus fill-in task was superior to the reading task in the Israeli setting ($N = 99$) but not in the Dutch setting ($N = 87$), partially supporting the ILH. Most follow-up studies expanded or improved on Hulstijn and Laufer (2001) in terms of task designs (e.g., Laufer & Rozovski-Roitblat, 2011), measures of word knowledge (e.g., Keating, 2008), use of moderators such as L2 proficiency (e.g., Kim, 2008) and word exposure frequency (e.g., Eckerth & Tavakoli, 2012), and use of control group (e.g., Martínez-Fernández, 2008). The majority of these studies provided mixed evidence for the ILH, with studies in full support of the ILH being in the minority (e.g., Min, 2008). The contributory factors include type of vocabulary knowledge, how and when vocabulary knowledge is measured, task variation, task time, word exposure frequency and even type of post hoc test.

Kim (2008), for instance, found that, although the composition writing task outperformed both the reading and reading plus fill-in tasks on the immediate posttest, the reading and reading plus fill-in tasks showed no significant difference, providing partial support for the ILH. However, on the test of word retention, a higher involvement load resulted in greater vocabulary gains over time, fully supporting the ILH. Keating (2008) found that accepting or rejecting the ILH was also partly contingent upon type of vocabulary knowledge. For instance, on the immediate passive word recall posttest, the reading plus fill-in and sentence writing tasks showed no significant difference, though they were superior to the reading task, providing partial support for the ILH. Nevertheless, on the immediate active word recall posttest, the sentence writing task was more effective than the reading plus fill-in task, which in turn was more effective than the reading task, thus lending full support to the ILH.

A comparison between Kim (2008) and Keating (2008) indicates that task time may contribute to different findings. Keating (2008) allowed the participants to spend different amounts of time on the completion of each task while Kim (2008) held task time constant. Another noteworthy factor is type of post hoc test. Both Keating (2008) and Kim (2008) used a conservative post hoc test (Tukey test or Bonferroni post hoc comparisons), which might fail to detect the real mean difference between tasks with different involvement loads when the difference is small.

Rather than using passage-context designs, a few studies used sentence-context designs to test the ILH (e.g., Folse, 2006; Pichette, de Serres, & Lafontaine, 2012; Webb & Kagimoto, 2009). Very few studies (e.g., Webb, 2005, in the second experiment) fully supported the ILH. Folse (2006) suggested that the important feature of a given L2 vocabulary exercise may not be involvement load but the number of word retrievals required. Webb (2005) found that confirming or disconfirming the ILH also depends partly on how tasks are designed, how task time is handled and how vocabulary knowledge is measured. Similarly, Pichette et al. (2012) indicated that, when the ILH is tested, word factors like concreteness need to be taken into account. Webb and Kagimoto (2009) even argued that task difficulty and learning strategies may contribute to the different results for the higher and lower level L2 learners.

This study used a sentence-context design to investigate task effectiveness by comparing several output tasks and one control task, partly because this design provides more flexibility for the choice of target words with different parts of speech. This study was also stimulated by limitations in this line of research. To start with, no single study attempted to overcome all the four limitations of Hulstijn and Laufer (2001), i.e., lack of a control group, no distinction between input