

THE ROLE OF TASK-INDUCED INVOLVEMENT IN VOCABULARY LEARNING OF IRANIAN LANGUAGE LEARNERS

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Abstract: This study investigated Laufer and Hustijn's (2001) Involvement Load Hypothesis in vocabulary learning. It comprised two experiments. Experiment 1 examined whether two tasks with equal involvement load but different distribution of components would yield the same result in initial learning and retention of target words. Experiment 2 investigated whether two tasks, one input and another output, with equal involvement load and the same distribution of components would result in equivalent initial learning and retention of target words. 126 advanced English learners completed one of three vocabulary learning tasks that equated in the amount of involvement they induced: sentence writing, fill-in, and translation (L2-L1). Receptive knowledge of the target words was assessed immediately after treatment and two weeks later, and one month interval after the first delayed posttest. The result of t-test for Experiment 1 showed that when two tasks had equal involvement load but different distribution of components they resulted in similar amounts of initial learning and retention of new words. The findings of Experiment 2 indicated when two tasks, one input and another output, had equal involvement load and the same distribution of components, they led to superiority of fill-in task over translation task in initial vocabulary learning, however, not in retention of new words.

Keywords: *involvement load hypothesis; incidental vocabulary learning; depth of processing theory*

INTRODUCTION

Many learners of a second or foreign language feel concerned with the burden of vocabulary learning and worry about how to tackle the formidable task of learning many thousands of words. Teachers might well understand this need but might not know how best to support their students in this endeavor. For learners at the beginning level, intentional learning of new lexical items generally accounts for

most of their vocabulary knowledge. But this exclusive dependence on intentional learning at the elementary levels fails to fulfill the later needs of these learners at the intermediate and advanced levels.

There has been a keen research interest in incidental vocabulary learning in terms of different tasks; for instance, dictionary use (Cho & Krashen, 1994; Knight, 1994; Luppesco & Day, 1993), the role of glosses (Rott, 2005; Rott & Williams, 2003; Watanab, 1997), and the effect of word-focused tasks with or

without reading (Laufer, 2003; Paribakht & Wesche, 1997; Wesche & Paribakht, 2000). In search of any plausible explanation for the superiority of one task over another, researchers claim that the benefits may be attributable to the greater depth of processing (Craik & Lockhart, 1972).

Craik and Lockhart (1972) launched the concept of depth of processing, which argue that new information will be retained better in long-term memory depending on the depth of information processing. Retention does not depend on the length of time that the information is held in short-term memory. On the other hand, when new information is initially processed more deeply, the retention is better. However, there were no definite criteria by which one task was more effective than another. The concept of depth of processing was seriously afflicted with a lack of an operationalizable definition.

Laufer and Hustijn (2001) put forward the idea of the "Involvement Load Hypothesis" in incidental vocabulary learning in order to eliminate the lack. It is a motivational-cognitive construct consisting of three basic components-Need, Search, and Evaluation- that may be present or absent in tasks with varying degrees of prominence. These three factors can be employed to manipulate and measure the involvement load (i.e. depth of processing) which explains the successful retention of unfamiliar words.

To compensate for the lack of operationalizable definition of the depth of processing theory (Craik and Lockhart, 1972), Laufer and Hustijn (2001) developed the Involvement Load Hypothesis for L2 vocabulary learning. They proposed a motivational-cognitive construct of involvement consisting of

three basic components of need, search, and evaluation which can be used to manipulate and measure the involvement load (i.e. depth of processing). They suggested that their hypothesis could explain and predict learners' success in the retention of unfamiliar words. Tasks with different involvement load will lead to different incidental acquisition. In the process of vocabulary acquisition, the higher involvement load is, it is more effective for learners to retain vocabulary than when the involvement load is lower. In other words, the researchers argue that the greater the involvement load, the better the retention.

According to Hustijn and Laufer (2001), the basic contention of involvement load is that retention of unfamiliar words is generally conditional upon the degree of involvement in processing these words (p. 545). They claimed that the degree to which a learner is engaged in cognitive processing does not depend on whether the given task is input- or output-oriented, but on the combination of the three factors, called "involvement load".

The involvement load of a task is measured by the combination of the presence or absence of the three involvement factors. The absence of a factor is marked as a minus (-) or 0, a moderate presence of a factor is a plus (+) or 1, and a strong presence is a double plus (++) or 2. The plusses in the three components are added up into an "involvement index". In other words, the higher involvement index means that task-induced involvement is deeper. The higher the involvement load, it is usually more effective for learners to gain and to retain vocabulary than the lower involvement load.

Empirical support for the construct of task-induced involvement

comes from the large body of literature on incidental word learning conducted prior to its conception, and from recent studies designed to directly tests the predictions of the Involvement Load Hypothesis. The evidence supports the following claim: Tasks that induce greater involvement loads (i.e. tasks with higher degrees of need, search, and evaluation) generally lead to greater gains in short-term and, in some cases, long-term word retention (Hulstijn and Laufer, 2001; Keating, 2008; Kim, 2008).

Other studies (e.g. Alamzadeh, 2007; Al-Hadlaq, 2003; Folse, 2006; Hui, 2003) also investigated whether tasks with higher involvement load would result in better retention. The results of these studies did not fully support the hypothesis. In other words, one study (Alamzadeh, 2007) indicated that the involvement load hypothesis could not be the only reason for the better retention of words. In Hui-Fang Tu's (2003) study the difference among the tasks was not statistically significant. An interesting point about the study was that for each task in the two experiments, longer time-on task generally led to better retention.

As mentioned earlier, Laufer and Hustijn (2001) determined the amount of involvement load as sum of the plusses (of need, search and evaluation). However, it is possible that all three components might not be equally important in vocabulary learning. So, Hustijn and Laufer's methods for determining the involvement index for different tasks might need to be reexamined (Kim, 2008). For instance, a task consisting of moderate need (1), search (1), and no evaluation (0) has the same involvement load (i.e., involvement index = 2) as a task of moderate need (1), no search, and moderate evaluation (1). To the best of our knowledge, no experiment has been conducted directly

to evaluate the weight of components in Involvement Load Hypothesis. Therefore, the present study aimed first to investigate whether tasks with identical involvement load but different distribution of components induce the same amount of vocabulary learning. Put differently, whether search component can compensate the difference of a "plus" in the *evaluation* component between sentence writing task (++evaluation) and fill-in task (+evaluation).

The basic contention, to date, has been that the effectiveness of a task is determined by the involvement load it induces, irrespective of whether the task is input or output oriented. Little attention has been paid to the role of input and output in Involvement Load Hypothesis. Alamzadeh (2007) investigated whether two tasks, one input and another output, with the same involvement load would lead to similar retention results. The result showed the priority of output task over input task. Although two tasks with the same involvement load were employed, she did not take into account the different distribution of components in those tasks. Maybe owing to varying distribution of components, it led to superiority of output task. Thus further research seemed necessary to answer this question. Furthermore, according to Waring and Takaki (2003), there is rare research into vocabulary gains from reading to ask how long these gains will last. Few of vocabulary studies measured long-term retention of vocabulary over one or two weeks' interval. Most of them considered just one or two weeks delay. So, this gap was filled as well by considering one month interval in the present study.

METHOD

The subjects of this study were 126 students from nine advanced-level intact classes of Kish Air institute in the north of Iran. They were spread across three branches of Kish Air institute. The participants were largely young adult learners with an average age of 20. There were three classes in each institute. Students within each of the three classes in each institute were randomly assigned to one of the three tasks. So, there were three groups in each institute.

To control for the homogeneity of the participants, they were selected from the same level of proficiency. The number of students in each class ranged from 14-16 students. The data were collected during their regularly scheduled class periods. To test their previous knowledge of the words, their course books were checked to make sure that they did not have any prior knowledge of the target words.

The instrument employed in this study encompassed a reading text in which the target words occurred, along with four reading comprehension questions of a reading passage, and three (immediate and first and second delayed) posttests. These processes are described in details in the following sections.

The reading passage "Is an Only Child a Lonely Child?" and a set of accompanying comprehension questions were adapted from the textbook *Active Skills for Reading* (Anderson, 2008). This reading passage was employed because the topic was a general one and the participants were assumed to understand the topic. The text contained 618 words and its Flesch Reading readability measure was 46.1. Following the text there were four multiple-choice questions.

Three tasks with equal involvement load were set to serve the purpose of the current study. Tasks 1

and 2 (output) which have equal involvement but a different distribution of components were compared for answering the question whether two tasks with equal involvement load but different distribution of components would yield the same result. Tasks 2 and 3 which have identical involvement and similar distribution of components were compared so as to evaluate whether two tasks, one input and another output, with equal involvement load and identical distribution of components would lead to the same result.

Task 1: Sentence writing with target words (output). The students were given a worksheet that included eight target words in a word list with glosses. They were asked to write a sentence with each of the eight target words. The Farsi translation and English explanation of the target words were provided in glosses with a phrase as an example (appendix A). No example sentences were given. This was done to guard against the possibility that some students might copy the examples making little changes to them, which would result in less generation (Nation, 2001). This task was based on Laufer (2003). Hulstijn and Laufer (2001) argued that the involvement index of this task was 3, including a moderate *need*, no *search*, and a strong *evaluation*.

Task 2: Reading comprehension plus "fill-in" (output). Students were given a reading text with some multiple-choice comprehension questions in order to answer. Target words were deleted from the text, leaving some gaps to be filled in. The target words, with some distractors which did not appear in the original text, were printed in random order (Appendix B). The students were asked to use a dictionary and look up the

meaning of words. The task was to read the text, find the meaning of target words with the use of dictionary, fill in the gaps with the missing words from the list of words, and answer the comprehension questions. This task was based on Laufer (2003) with a difference that in Laufer (2003) sentence fill-in task was used. However, in the current study contextualized fill-in was employed. In terms of involvement load, this task induced moderate need, search, and moderate evaluation. Therefore, the involvement index was 3 (1 + 1 + 1).

Task 3: Reading comprehension plus Translation sentences L2-L1 (input). This task was chosen from Laufer and Girsai (2008). Students were provided with the same text in task 2. The target words were highlighted in bold print. After the text there were some sentences, embedded with target words, from the text so that students translated them into L1 (appendix C). The task was to read the sentences, use a dictionary to look up the meaning of the target words, write the translation of sentences into L1 and answer comprehension questions. During the translation task, students were asked to use a dictionary. In view of the involvement load, a translation task embodied the element of need since the words that had to be understood (when translating into L1) were predetermined by the source text. The element of search is present as well. If an L2 word was unfamiliar, learners had to conduct a search for its meaning by dictionary when translating into L1. Most importantly, an element of evaluation was necessary to carry out a translation activity. There was usually more than one translation alternative for a given sentence. Therefore, when translating, learners had to make a decision as to how each alternative fitted

the text they created. Task 3 induced moderate need, search, and moderate evaluation. So, the involvement load was 3 (1+ 1+ 1).

The experiment was conducted on three separate days over a month-and-a half period. The treatment and immediate vocabulary test were administered on the same day and the first delayed posttest was carried out two weeks later. The second delayed posttest was administered within a one-month interval after the first delayed posttest.

The nine experimental groups in the two experiments (two groups in each experiment) were randomly assigned to perform one of the three tasks during regular English class sessions. In the first session students performed tasks and upon completion of the tasks, the worksheets were collected and not returned to the participants. Then they were given an immediate posttest designed to measure their *initial* vocabulary learning. They were demanded to write the meanings of the target words either in Farsi or English.

In addition, they were asked to indicate whether they had known the words prior to the task. This was our additional check for prior knowledge. None of the three tasks was presented as a vocabulary-learning task, with the first task being introduced as a writing task to evaluate their writing and the last two ones were considered as reading tasks so as to assess their reading comprehension. As in Hustijn and Laufer's (2001) study, no time limit was set for working on the tasks.

Consequently, the nine classes spent approximately 30-35, 25-30, and 15-20 minutes accomplishing the translation, fill-in, and sentence writing tasks, respectively. Two weeks later, the participants were given an unexpected

delayed posttest in order to measure their retention of vocabulary knowledge. To scrutinize the retention of target words, the second delayed posttest were given within a one-month period after the first delayed one. These posttests were identical except in the order of target words. Learners' vocabulary knowledge of the target words, that is, their receptive knowledge only, was investigated.

RESULTS AND DISCUSSION

The tests were scored by the researchers. A word that was not translated or was wrongly translated received a score of zero. A correct response received 1 point. A semantically approximate response received half a point. If students did not notice the part of speech of words, they received just half a point. For instance, the word "Dwindle" was used as a verb in the text; however, they wrote its meaning as a noun. If the learner had a correct response but had also marked the target word as known prior to the experiment, the response was scored as zero.

As presented earlier, the four research questions investigated the effect of task type on (a) the *initial* vocabulary learning and (b) the *retention* of new vocabulary words of EFL students when three tasks with equal involvement were administered. Each research question examined one dependent variable: scores on the immediate and two delayed posttests. Research questions had the same independent variable: task type. In order to test the four research questions, the data were analyzed using SPSS version 16.0. Initial learning and Retention scores of the immediate and two delayed posttests were then submitted to Paired T-Test. An alpha level of .05 was used for all statistical tests.

The mean scores and standard deviations of the immediate and first and second delayed posttests of three tasks in these experiments were also calculated. Then to examine the effect of each factor, retention scores were further submitted to paired t-test to find out how great the difference between the task 1 and 2 and also task 2 and 3 is.

Table 1. *Number of participants, mean scores, and standard deviations of the immediate, first and second delayed posttests*

Task	Number	Immediate posttest		First Delayed Posttest		Second Delayed Posttest	
		Mean	SD	Mean	SD	Mean	SD
Task 1	42	3.2619	1.56656	.8929	.89399	.7500	.95796
Task 2	42	3.5000	1.88058	.7143	.87054	.6429	.94537
Task 3	42	2.7024	1.51440	.5952	.91223	.4643	.66619

For answering questions 1 and 2, so as to know whether two tasks with the same involvement load but different distribution of components will yield equal initial and retention of target words, scores were submitted to paired t-test. The results of paired t-test between two output tasks (sentence writing and fill-in) on initial learning of target words revealed a t value of - .602 with 41 df.

that is not statistically significant at the .05 level. Results of paired t-test for the comparison of task 1 and task 2 in first delayed posttest revealed a t value of .931 with 41 df. that is not statistically significant at .05 level. Likewise, the results of paired t-test for the comparison of task 1 and task 2 in second delayed posttest revealed a t value of .557 with 41 df. that is not statistically significant at

the .05 level. Thus, we have the evidence to claim that tasks with the same involvement load but different distribution of component lead to similar initial learning and retention of target words. Put in another way, it seems that search could fill the difference of a plus in evaluation component between task1 (++ evaluation) and task 2 (+ evaluation).

The latter two sections address whether involvement load is the determining factor in task efficacy without regard to whether the task is input or output oriented. So, it is tried to answer these two questions by the comparison between two tasks, one input and another output, with the identical involvement load and the same distribution of components. Results of paired t-test for the comparison of task 2 and task 3 on immediate posttest revealed a t value of 2.145 with 41 df. that is statistically significant at .05 level ($p < .05$). Therefore we can claim that output task is more effective than input task in initial vocabulary learning. Results of paired t-test on participants' first delayed posttests revealed a t value of .583 with 41 df. that is not statistically significant at the .05 level. Likewise, the results of paired t-test on participants' second delayed posttests revealed a t value of .583 with 41 df. that is not statistically significant at the .05 level. The latter two results of this paired t-test on the first and second delayed posttests provide sufficient evidence to support the claim that input and output tasks with the equal involvement load and the identical distribution of components lead to the same retention results.

The two experiments described attempted to provide empirical evidence for the involvement load hypothesis in L2 vocabulary acquisition. The purpose of Experiment 1 was to examine whether two tasks with the same amount of

involvement load but different distribution of components would have similar effects on the initial learning and retention of target words. Worded differently, whether search can compensate the difference of a plus in evaluation component between task 1 (++ evaluation) and task2 (+evaluation).

The results suggested that the two tasks, with identical involvement loads but different distribution of components, were equally effective in promoting both the initial learning and retention of new words and thus lend support to the involvement load hypothesis. And it seems that search by dictionary could fill the gap between strong and moderate evaluation. Finding words through the use of dictionary and evaluating words in order to complete the fill-in task seem very prominent in contributing to the vocabulary learning.

According to Folse (2006), many educators see fill-in task as a superficial or passive use of vocabulary, especially when compared to writing original sentences. However, this study provided evidence that sentence writing task and fill-in task with equal involvement load but different distribution of components induced the same amount of vocabulary learning. This is in accord with Kim's (2008) study that provided tasks with equal involvement load and the same distribution of components (sentence writing vs. composition writing) would yield similar retention of target words. Al-Hadlaq (2003) too found the same result stating that sentence writing and fill-in tasks were equally effective in vocabulary learning.

Laufer (2003) could partially support the involvement load hypothesis with two tasks (i.e., writing sentences with the target words and fill-in sentences with the target words after looking up their meaning). These two

tasks have the same involvement index 3 but have a different distribution of components (i.e., moderate need, no search, and strong evaluation vs. moderate need, search, and moderate evaluation). Although there was no significant difference between the sentence fill-in group and the sentence writing group on immediate posttest, the scores of these two groups were significantly different from each other on the delayed posttest, with the sentence fill-in group acquiring higher scores. Our result is in accord with the initial learning result of Laufer (2003).

The result of experiment 1 lent support to the role of dictionary. Several studies have investigated the effectiveness of consulting dictionaries for promoting vocabulary learning (Cho & Krashen, 1994; Knight, 1994; Luppescu & Day, 1993; Hulstijn, Hollander & Greidanus, 1996). Analysis showed that when participants in the dictionary group looked up a word, their chances of remembering the word's meaning were greater.

The purpose of Experiment 2 was to examine whether two tasks, one input- and another output-oriented, with equal involvement load and similar distribution of component would lead to the same amount of vocabulary learning. The findings of Experiment 2 indicated the superiority of fill-in task over translation task in initial vocabulary learning, however, not in retention of new words. One explanation for this result might be related to the procedure of performing translation task. The problem seen during the administration of this task was that students did not listen to the researchers' instruction. The researchers asked students to read the text and then translate the following sentences by use of dictionary and answer comprehension questions.

Instead, the participants started by translation of the sentences not reading the text. Then they answered four comprehension questions. It is not clear whether the students read the text completely or not. This task should have been performed in two phases. In the first phase it should have asked students to read the text and answer comprehension question then they should have been given the translation task.

In answering research question 4, which investigated the retention of new vocabulary knowledge, Experiment 2 fully supported the involvement load hypothesis. There was no significant difference between two tasks in the first and second delayed posttests. Although, on the immediate posttest, the fill-in group was significantly different from translation group, this difference faded over time. The scores on the first and second delayed posttests indicated that output and input tasks were equally effective in vocabulary learning although the scores on the immediate posttest revealed the priority of output task over input task.

One issue observed among the participants was that some students expressed that they were able to remember the meanings of most of the words but were unable to match these meanings with their English counterparts in the posttests. They uttered that the target words were familiar and the meanings of these words were in their minds, however, they could not match the meanings with their English equivalents in the posttests. It reveals that only one time exposure is not enough to consolidate the meaning of the words in students' memory. In general, processing a new word repeatedly in one or multiple texts has been found to be conducive to incidental word learning

(for a review, see Paribakht and Wesche, 1999; Rott, 2005; Waring and Takaki, 2003).

This study involves certain limitations and suggestions for further research, as detailed below. First of all, this study cannot be generalized to other educational settings, as a relatively small number of participants were sampled. Second, participants read only one text and word acquisition of only ten words were assessed. Therefore, findings cannot be extrapolated to other text types and other word classes. Third, some students uttered that they were able to remember the meanings of most of the words but were unable to match these meanings with their English counterparts in the posttests. Future studies might employ multiple measures, including recognition tests e.g., multiple choice tests that are more sensitive to small increases in vocabulary knowledge, as illustrated in Waring and Takaki (2003).

Overall, the inclusion of different types of vocabulary tests would enhance the credibility of the involvement load hypothesis and would offer more specific information regarding how involvement load contributes to the development of both receptive and productive vocabulary knowledge. Forth, in the first Experiment, sentence writing task (moderate need, no search, and strong evaluation) was compared with fill-in task (moderate need, search, and moderate evaluation).

Research is needed to compare two tasks with the same involvement load but differ in distribution i.e. comparing search and moderate evaluation. For example, a task consisting of +need, +search,-evaluation should be compared with a task consisting of +need, -search, +evaluation; or a task consisting of ++need, +search,-evaluation should be compared with a

task consisting of +need, -search, ++evaluation. Fifth, the participants in the current study engaged in each task only once. Multiple treatment sections for each task would allow a more definite conclusion regarding the effectiveness of each task on L2 vocabulary acquisition. Sixth, Hustijn and Laufer do not differentiate between the different types of search the students can make. They give equal weight to all kinds of search, such as consulting a bilingual dictionary, consulting a monolingual dictionary, consulting a bilingualized dictionary, asking the teacher and consulting the corpus. Every type of search might have different involvement load.

Future research should be performed to compare tasks with the same amount of involvement, only differ in the types of search administered. Seventh, this study could also be replicated with students varying in their levels of proficiency. Eighth, as mentioned earlier, in translation group students did not follow researcher's instruction by starting reading text and then translating sentences by use of dictionary. They started translation sentences without reading the text. Experiment 2 should be replicated with a difference that translation task should be administered in two phases. Ninth, it would be interesting to find out whether having target words with the same part of speech (e.g., only nouns or only verbs) in the fill-in tasks would generate more evaluation of the target words than having these words mixed with other words of different parts of speech. Final suggestion for future research is that two tasks, one at sentence level and another at text level, with the same involvement load and similar distribution of components should be compared. Although Kim (2008) and Al-Hadlaq

(2003) performed this research, the result was mixed.

CONCLUSION

In order to gain better insight and more relevant data, there is an absolute need for experiments that aim to test the hypothesis with a variety of tasks. Because the construct of involvement can be operationalized and investigated in a variety of ways, researchers will need to devise tasks with different involvement loads and compare them concerning their effect on vocabulary learning. The current study tried to help fill this research gap, keeping in mind that more precise definitions of the involvement components and more thorough theoretical links between them should be examined further.

REFERENCES

- Alamzede, N. (2007) *The role of task involvement load on vocabulary acquisition in incidental learning situation*. Unpublished master's thesis, Mazandaran University, Iran.
- Al-Hadlaq, M. (2003) *Retention of words learned incidentally by Saudi EFL learners through working on vocabulary learning tasks constructed to activate varying depth of processing*. Unpublished Doctorate's dissertation, Ball State University, Indiana.
- Anderson, N. J. (2008). *Active skills for reading*. Boston: Thomson Heinle.
- Cho, K. S., and S. D. Krashen (1994) Acquisition of vocabulary from the Sweet Valley Kids Series: adult ESL acquisition. *Journal of Reading*, 37, 662-667
- Craik, F. I. M., and R. S. Lockhart (1972). Levels of processing: a framework for memory research. *Journal of Verbal Learning and Verbal Behavior*, 11, 671-684.
- de la Fuente, M. J. (2002). Negotiation and oral acquisition of L2 vocabulary: The roles of input and output in the receptive and productive acquisition of words. *Studies in Second Language Acquisition*, 24, 81-112.
- Ellis, R., and He, X. (1999). The role of modified input and output in the incidental acquisition of word meaning. *Studies in Second Language Acquisition*, 21, 285-301.
- Folse, K. S. (2006). The effect of type of written exercise on L2 vocabulary retention. *TESOL Quarterly*, 40, 273-293.
- Hui-Fang, Tu. (2003). Effects of task-induced involvement on incidental vocabulary learning in a second language. Unpublished master's thesis, Taiwan. Retrieved from <http://www.hss.nthu.edu.tw/~fl/the sis/tesol/905258.pdf>
- Hulstijn, J. H., M. Hollander, and T. Greidanus (1996). Incidental vocabulary learning by advanced foreign language students: The influence of marginal glosses, dictionary use, and reoccurrence of unknown words. *The Modern Language Journal*, 80, 327- 339.
- Hulstijn, J. H., and B. Laufer. (2001). Some empirical evidence for the involvement load hypothesis in vocabulary acquisition. *Language Learning*, 51, 539-558.
- Joe, A. (1995) Text-based tasks and incidental vocabulary learning: A case study. *Second Language Research*, 11, 149-158.
- (1998) What effects do text-based tasks promoting generation have on incidental vocabulary acquisition? *Applied Linguistics*, 19, 357-377.
- Keating, G. D. (2008). Task effectiveness and word learning in a second language: The involvement load hypothesis on trial. *Language Teaching Research* 12, 365-386.
- Kim, Y. (2008) The role of task-induced involvement and learner proficiency in L2 vocabulary acquisition. *Language Learning*, 58, 285-325.
- Knight, S. (1994) Dictionary use while reading: The effects on comprehension

- and vocabulary acquisition for students of different verbal abilities. *The Modern Language Journal*, 78, 285-299.
- Laufer, B. (2001) Reading, word-focused activities and incidental vocabulary acquisition in a second language. *Prospect*, 16(3), 44-54.
- (2003) Vocabulary acquisition in a second language: do learners really acquire most vocabulary by reading? Empirical evidence. *Canadian Modern Language Review* 59, 4: 565-585
- Laufer, B. (2005) Focus on form in second language vocabulary learning. *EUROSLA Yearbook*, 5, 223-250.
- Laufer, B., and N. Girsai. (2008) Form-focused instruction in second language vocabulary learning: A case for contrastive analysis and translation. *Applied Linguistics*, 29/ 4: 694-716.
- Laufer, B., and J. H. Hulstijn. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics*, 22, 1-26.
- Lupescu, S., and R. R. Day. (1993). Reading, dictionaries, and vocabulary learning. *Language Learning*, 43, 263-287.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Newton, J. (1995). Task-based interaction and incidental vocabulary learning: A case study. *Second Language Research*, 11, 159-177.
- Paribakht, T. S., and M. Wesche. (1997). Vocabulary enhancement activities and reading for meaning in second language acquisition. In J. Coady, & T. Huckin (Eds.), *Second Language Vocabulary Acquisition* (pp. 174-200). Cambridge: Cambridge University Press.
- (1999). Reading and "incidental" L2 vocabulary acquisition. *Studies in Second Language Acquisition*, 21 (2), 195-221.
- Rott, S. (2005). Processing glosses: A qualitative exploration of how form-meaning connections are established and strengthened. *Reading in a Foreign Language*, 17, 95-124.
- Rott, S., and William. J. (2003). Making form-meaning connection while reading: A qualitative analysis of word processing. *Reading in a Foreign Language*, 15, 45-75.
- Waring, R., and M. Takaki. (2003). At what rate do learners learn and retain new vocabulary from reading a graded reader? *Reading in a Foreign Language*, 15(2), 130-163.
- Watanabe, Y. (1997). Input, intake, and retention: Effects of increased processing on incidental learning of foreign language vocabulary. *Studies in Second Language Acquisition*, 19, 287-307.
- Webb, S. (2005). Receptive and productive vocabulary learning: the effects of reading and writing on word knowledge. *Studies in Second Language Acquisition*, 27, 33-52.
- Wesche, M., and T. S. Paribakht. (2000). Reading-based exercises in second language vocabulary learning: An introspective study. *The Modern Language Journal* 84, 196-213.