

An Empirical Study of the Involvement Load Hypothesis in Incidental Vocabulary Acquisition in EFL Listening

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Abstract

Building on the Involvement Load Hypothesis put forward by Hulstijn and Laufer, which proposes that task inducing higher involvement load is likely to produce better vocabulary retention effects, this study is aimed to apply the Hypothesis to substantiating incidental vocabulary acquisition in EFL listening comprehension. Experiments were carried out with three parallel classes of non-English major students by assigning them tasks with different involvement indexes of two listening comprehension passages. Scores of immediate and post vocabulary retention tests were collected. Kruskal-Wallis Test was employed to analyze the correlation between retention effects and task involvement load. It turned out that there was a significant difference in retention effects among the three tasks, which proved the validity of Involvement Load Hypothesis, confirming as it did that tasks with higher involvement load lead to better retention effects. The paper concludes with pedagogical implications for teachers and researchers.

Key terms: incidental vocabulary acquisition, involvement load, retention effect, listening comprehension

1. Introduction

It goes without saying that learning a language involves mastering a great number of words. As globalization progresses, English is becoming increasingly important for international communicative purposes, such as cultural exchange or international trades. Hence, the great importance that has been attached to the learning of English. In China, the command of English has become such a necessity that English is a pre-eminent subject in primary and secondary schools as well as in institutions of higher learning. Notwithstanding, learning English remains a difficulty for many learners. In the process of learning, some of them are time and again frustrated not only by the strict grammatical rules that are complex and hard for them to grasp but by the bulk of vocabulary, which is regarded as the greatest obstacle standing in the way of learning English. In order to become advanced and successful learners, students have to master thousands of words, including those seldom used in day-to-day communication.

Not just learners, but teachers of English are no less bothered by vocabulary teaching. Learning a foreign language at intermediate and advanced proficiency levels involves the acquisition of thousands of words. How to help students acquire more words in less time is a problem many language teachers grapple with. English teachers in China have made many attempts to figure out ways of instruction that might foster the acquisition of difficult words and try out what they think is the best way to teach vocabulary. Some employ the audio-visual method, others lay emphasis on contexts, and still others adopt the task oriented approach, etc. Those efforts made by Chinese teachers of English proved satisfactory and effective to a varying degree.

But it is to be admitted that teaching vocabulary only in class is not enough. A large number of words are actually learned unconsciously out of class. Words could be learned in classroom by systematic teaching procedures, but more importantly, vocabulary acquisition is a by-product of a non-vocabulary building

activity as well. Words can be picked up when students do reading, listening, speaking and even writing tasks. Therefore, how to help students enlarge their vocabulary size and ensure better retention when they come across new words accidentally should be a project of utmost importance for language teachers and researchers. Such is the realization on which the present study is based.

In the belief that listening, which is another important way of language input, may cause incidental learning, the paper is intended to study incidental vocabulary acquisition in EFL listening comprehension by applying the Involvement Load Hypothesis to see whether a listening task with higher degree of involvement load leads to better retention.

2. Literature Review

Researchers at home and abroad have done numerous relative researches concerning incidental vocabulary learning. Some experts have explored the relationship between vocabulary acquisition and input effect (Krashen, 1989; Ellis, 1995; Ellis & Xien He, 1999); some have argued for the relationship between context and effect of vocabulary retention (Nagy, Herman, & Anderson, 1985; Nagy, Anderson, & Herman, 1987; Swanborn & Gloppe, 2002); some scholars have investigated the relationship between different tasks and the effects of vocabulary learning (Hulstijn, Hollander, & Greidanus, 1996; Joe, 1998; Wesche & Paribakht, 2000; Newton, 2001; Laufer & Hulstijn, 2001), etc. Of all that have been done in this field, the Involvement Load Hypothesis with the basic contention that retention of unfamiliar words is generally conditional upon the degree of involvement in processing these words draws our attention. It is proposed that the greater the involvement load, the better the retention. The Hypothesis also makes it a reality that the criteria of task effectiveness can be observed, manipulated, and measured.

2.1 The Construct of Involvement Load Hypothesis

2.1.1 Task and Vocabulary Learning

A number of case studies conducted in recent years have shown how incidental learning of vocabulary can be enhanced through text-based tasks. Words whose meanings are correctly inferred during a reading task are remembered better than words explained by synonyms (Hulstijn, 1992); words that are looked up in a dictionary during a reading task are remembered better than words that are not looked up (Cho & Krashen, 1994; Knight, 1994), or than words that are glossed in text margin (Hulstijn, Hollander, & Greidanus, 1996); words that are negotiated during communicative activities are retained better than non negotiated words (Ellis, Tanaka, & Yazaki, 1994; Newton, 1995). Joe (1995) found that the task demands (specifically, attention, retrieval, and generation) led to a significantly higher level of incidental vocabulary learning. Newton (1995) obtained similar results in a case study of task-based interaction. Research by Paribakht and Wesche (1997) further underscored the relationship between task demands, learner attention, and learning outcome. Their research showed words practiced in a series of vocabulary-focused exercises following a reading task led to a better retention than words that received additional exposure in texts. In explaining the superiority of one task over another, most of these authors suggest that effective tasks require a deeper level of processing of new words than the other tasks. The results from the experiment done by Wesche and Paribakht indicated that the process of reading and retelling a text promoted incidental vocabulary learning and that generative processing enhanced vocabulary learning with greater levels of generative processing leading to greater vocabulary gains for unknown words.

2.1.2 The Involvement Load Hypothesis

Acknowledging the importance of the notions of depth of processing (Craik & Lockhart, 1972) and elaboration

(Craig & Tullving, 1975), but feeling the need to translate and operationalize such general cognitive notions in terms of L2 vocabulary learning tasks, Hulstijn and Laufer developed the Involvement Load Hypothesis for L2 vocabulary learning. Tasks with different involvement load will lead to different incidental acquisition (Laufer & Hulstijn, 2001). Retention of unfamiliar words is claimed to be conditional upon the amount of involvement while processing these words. Involvement is operationalized by tasks designed to vary in the degree of need, search, and evaluation. The need component is the motivational, non-cognitive dimension of involvement. Two degrees of prominence are suggested for need: moderate and strong. According to Hulstijn and Laufer (2001), need is moderate when it is imposed by an external agent. An example is the need to use a word in a sentence that the teacher has asked for. Need is strong when it is intrinsically motivated, that is, self-imposed by the learners, for instance, by the decision to look up a word in an L1-L2 dictionary when writing a composition.

Search and evaluation are the two cognitive dimensions of involvement, contingent upon allocating attention to form-meaning relationships (Schmidt, 1994). Search is the attempt to find the meaning of an unknown L2 word or the attempt to find the L2 word form expressing a concept (e.g. trying to find the L2 translation of an L1 word) by consulting a dictionary or another authority (e.g. a teacher). Evaluation entails a comparison of a given word with other words, a specific meaning of a word with its other meanings, or comparing the word with other words in order to assess whether a word does or does not fit its context. For example, when a word looked up in a dictionary is a homonym (e.g. bank of a “river”, or bank as a “financial institution”), a decision has to be made about its meaning by comparing all its meanings against the specific context and choosing the one that fits best. The kind of evaluation that entails recognizing differences between words (as in a fill-in task with words provided), or differences between several senses of a word in a given context, is referred to as moderate. Evaluation that requires a decision such as how additional words will combine with the new word in an original (as opposed to given) sentence or text is referred to as strong evaluation (Hulstijn & Laufer, 2001).

Each of the above three factors can be absent or present when processing a word in a natural or artificially designed task. The combination of factors with their degrees of prominence constitutes involvement load. Take two tasks that vary in involvement load for example. In task one, the learner is asked to write original sentences with some words and these words are translated or explained by the teacher. The task induces a moderate need (imposed by the teacher), no search (the words are glossed) and strong evaluation because the new words are evaluated against suitable collocations in learner-generated context. If we want to describe the task in terms of an involvement index, where absence of a factor is marked as 0, a moderate presence of a factor as 1, and strong presence as 2, then the involvement index of the task is 3 (1+0+2). In task two, the students have to read a text and to answer comprehension questions. New words, which are relevant to the questions, are glossed with Chinese meaning. The task will induce a moderate need to look at the glosses (moderate because it is imposed by the task), but it will induce neither search nor evaluation. Its involvement index is 1. Hence, task one induces a greater involvement load than task two (Hulstijn & Laufer, 2001). It is supposed that task one will exert better retention than task two.

2.1.3 Domestic Researches Concerning the Involvement Load Hypothesis

The Involvement Load Hypothesis has aroused home researchers' attention. Researchers have tried to employ the Hypothesis to study the current vocabulary learning situations in homeland, and they have also reached the similar conclusions as Hulstijn and Laufer's. For example, Gai Shuhua (2003) did research with English majors on the incidental vocabulary acquisition in reading. As was turned out in her study, different tasks affected the vocabulary acquisition and different students' vocabulary size affected the acquisition as well. In the research

done by Duan Shiping and Yan Chensong (2004), construct of task-induced involvement was employed to design multiple word annotations and one word annotation. The study showed that both the multiple word annotations and the one word annotation were conducive to incidental vocabulary acquisition, but the multiple word annotations were more beneficial to vocabulary learning than the one word annotation.

3. Research Design

3.1 Research Question

It is generally recognized that besides reading, listening is another important way for input and for learners to acquire vocabulary. But, interestingly, most researches mainly explore the incidental learning in reading, neglecting that the incidental learning may occur in listening. As is known to us, listening as well as reading is the major means for language input. Students definitely learn words when they listen to radio, TV or academic lectures. In listening teaching practice, students also come across many new words. How will these words be learned? Are there any differences in retention effects when students are assigned different tasks to do listening comprehension exercises? How different would the results be? Would the exercises with high task involvement load enable students to better acquire these words? With these questions in mind, this paper is intended to explore the following question: **Do tasks with high involvement load lead to better vocabulary acquisition in listening activities?**

3.2 Methodology

3.2.1 Participants

Three parallel classes of second-year non-English major students with about 29 in each were selected for the experiment. There were 29 students in Class I and Class II respectively, majoring in Science and Technology of Electronic Information; 28 students in Class III, majoring in Package Engineering. In order to ensure that the general listening comprehension proficiency of the three classes was relatively of the same level, the classes were chosen on the basis of the approximate mean score each class got in listening comprehension part of the latest two CET 4 model tests. The mean score of the first CET 4 model test of Class I was 12.1, Class II 11.8, Class III 11.7; the mean score of the second CET 4 model test of Class I was 16.6, Class II 17.4, Class III 16.6 with full score of listening comprehension being 25. In general, the three classes of students were supposed to have equivalent proficiency in listening comprehension skills.

3.2.2 Materials

3.2.2.1 Passages Selected for the Experiment

Two listening comprehension passages were chosen from CET 4 model tests with 7 target words in Passage 1 of total 257 words and 8 target words in Passage 2 of 222 words. The length of the passages is equivalent to the passages in the CET 4 sample test, in which the length of each passage ranges from 200 to 300 words. The percentage of unknown words in the two passages was 2.7% and 3.6% respectively, which indicated the passages with certain difficulties were appropriate for students to catch the global meaning of the text. Besides, given students were all at their second-year study, and that they were going to take the CET 4 test, their language level has been close to the proficiency level required by the syllabus, therefore, the passages chosen for experiment were suitable for them to listen to, but the unknown words in each passage would still challenge the full understanding of it.

3.2.2.2 Target Words for Testing

The target words and phrases in passage one were: *package tour*; *cruise*, *innumerable*, *pamphlet*, *safari*,

originate and *motorist*; eight target words in passage two were: *symbolize*, *perfection*, *hostility*, *duration*, *motto*, *oath*, *abide by*, and *sportsmanship*. Of all the fifteen words and phrases, *cruise*, *perfection* and *duration* were in the glossary of College English Band 4, but according to the glossary of Active Vocabulary in College English Curriculum Requirements (For Trial Implementation) (2004), *cruise*, and *perfection* belonged to passive words, which indicated these words were unfamiliar to the students; *innumerable*, *pamphlet*, *originate* and *oath* were in the glossary of College English Band 6, they also might be new words for students whose language proficiency was approximate to Band 4 to recognize; *hostility* and *motto* were in the glossary of higher proficiency level than Band 6, which students might not know either; *safari*, *motorist*, *symbolize* and *sportsmanship* were beyond the College English curriculum requirements, they were surely unknown words to the students. As for *package tour*, *duration* and *abide by*, they were considered new to most of the students, for before the pre-experiment vocabulary test, these fifteen words have been tested among other students who stayed at the similar language proficiency level, and the result showed most of the students could not recognize them. Therefore, most of the words were expected to be unfamiliar to our participants.

3.2.3 Task Design

Three tasks with different involvement load were designed for each passage for investigation. Students were required to do different tasks of different passages, and the same class of students was not expected to do the same task of different passage. The general administration of tasks for each class is shown in the following table:

Class \ Task	Class I	Class II	Class III
Passage 1	Task C	Task B	Task A
Passage 2	Task B	Task A	Task C

For short, tasks of Passage 1 will be labeled as: 1A, 1B, 1C; tasks of Passage 2 will be labeled as: 2A, 2B, 2C in the following part.

Task A: Listening comprehension questions with marginal glosses irrelevant to the questions. In this task, students were supposed to listen to the passage once, and then they were asked to do the multiple choices. All the questions could be answered without referring to the marginal glosses, and students could answer the questions correctly without understanding of the unknown words. In this case, Task A induced no need, because students did not need the target words to answer questions; no search, because all the target words have been glossed for them, and no evaluation, because there was not any chance for them to compare and decide on the meaning of the word in comparison with different words or different senses of the same word, so the involvement index was 0.

Task B: Listening comprehension questions with marginal glosses relevant to the questions. After listening to the passage for the first time, the students were asked to finish multiple choices which could only be correctly answered with the understanding of the unknown words. The correct answer to the questions involved the explanation of unknown words. The teacher was supposed to explain the target words to help students to get clear understanding of the text and make sure students could get to the correct answer. In Task B, there was a moderate need, because the need to learn the target words was imposed by the task, no search, because as in Task A, all the target words have been glossed for them; no evaluation, because there was not any chance for

them to compare and decide on the meaning of the word in comparison with different words or different senses of the same word, so the involvement index was 1.

Task C: Listening comprehension questions with marginal glosses relevant to the questions and a composition writing. The first part of the task was the same with Task B, the students were asked to finish multiple choices. The second part of the task was that after finishing listening comprehension questions, the students were asked to write a short article with the given target words. In this case, still, there was no search, because all the target words have been glossed for them; and there was a moderate need, because the need to learn the target words was imposed by the task, there was a strong evaluation, because students had to make a decision as to how additional words could be combined with the new word in a sentence or even a text. Therefore, the involvement index was 3.

3.2.4 Procedures and Tests

All the tasks were administered during normal class time. The duration of task was different for the three tasks. Tasks A, B and C took about 10-15, 15-25, and 45-60 minutes respectively. Task B required more time than Task A, because it involved the explanation of the target words, in the process of doing the exercise. Task C was the most demanding one, because it required writing an article, and therefore it was the most time consuming one. The arrangement of tasks for experiment is shown in the following table:

Class	Class I	Class II	Class III
Task			
Week 1	1 C	2 A	1 A
Week 2	2 B	1 B	2 C

After the completion of the task, all the work sheets were collected, and the students were unexpectedly given a sheet of test paper, on which the target words were listed. They were encouraged to recall the meaning of the target words and then write down either the Chinese meaning or the English equivalents of the target words. The scores were calculated. If nothing or wrong translation was given about the target word, the item should be scored 0; if relative but not exact information was retrieved, the item should be scored 1; if the full and exact meaning was recalled and written down, the item should be scored 2. The full score of the test for Passage 1 was 14 points, 16 points for Passage 2. A week later, they took a delayed test. The same test papers were distributed to them with different items in order to test the retention of the target words. Again, the results were calculated. After finishing the retention test, each class was given a task of another passage. The task was different from the one given in the previous week. The steps of the second task went on as in the previous week. After the completion of the task, all the work sheets were collected, and the students were unexpectedly given a sheet of test paper of the target words. Their test results were calculated and recorded. And again, a week later, the same test papers in a different item order were given to them to test their retention of the target words.

4. Results and Data Analysis

The general retention scores of both the immediate and the delayed tests of the target words are displayed in Table 1.

An Empirical Study of the Involvement Load Hypothesis in
Incidental Vocabulary Acquisition in EFL Listening

Table 1. Class, number of participants, mean retention scores, and standard deviations in immediate and delayed post-tests.

<i>Class N</i>			<i>Immediate</i>		<i>Delayed</i>	
			<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
1A	III	28	0.75	0.967	1.18	1.307
1B	II	29	6.69	3.387	5.24	3.248
1C	I	29	13.41	1.053	10.07	3.390
2A	II	29	3.21	1.677	4.00	2.121
2B	I	29	9.96	3.175	6.10	3.802
2C	III	28	15.41	1.268	10.25	3.566

Tasks of Passage 1 were labeled as: 1A, 1B, 1C; tasks of Passage 2 were labeled as: 2A, 2B, 2C.

A= listening comprehension questions with marginal glosses irrelevant to the questions

B= listening comprehension questions with marginal glosses relevant to the questions

C= listening comprehension questions with marginal glosses relevant to the questions + writing

As we can see from the table, either of Passage 1 or Passage 2, the global retention score of Task C is the highest, the score of Task B is in the middle, and the score of Task A is the lowest.

Univariate analysis was employed to analyze the data. Levene's Test of data collected from Passage 1 showed that $F(5, 166) = 15.597$; $p = 0.000 < 0.05$; Levene's Test of Passage 2 showed that $F(5, 166) = 6.675$; $p = 0.000 < 0.05$, which indicated the error variances were not equal in task and test variables in both two passages. Therefore, non-parametric, Kruskal-Wallis Test was adopted to analyze the data of the two passages respectively. The results of the Kruskal-Wallis Test analysis of the two passages are displayed in Table 2 and Table 3:

Table 2. Kruskal-Wallis Test of data of Passage 1

<i>Task</i>	<i>N</i>	<i>Mean Rank</i>			<i>Mean Rank</i>		
		<i>Immediate</i>	<i>Chi-Square(X²)</i>	<i>P</i>	<i>Delayed</i>	<i>Chi-Square(X²)</i>	<i>P</i>
A	28	16.89	69.334	0.000	18.32	55.093	0.000
B	29	41.52			44.14		
C	29	71.17			67.17		

Table 3. Kruskal-Wallis Test of data of Passage 2

<i>Task</i>	<i>N</i>	<i>Mean Rank</i>			<i>Mean Rank</i>		
		<i>Immediate</i>	<i>Chi-Square(X²)</i>	<i>P</i>	<i>Delayed</i>	<i>Chi-Square(X²)</i>	<i>P</i>
A	29	16.26	69.429	0.000	26.76	33.880	0.000
B	29	44.12			39.98		
C	28	71.07			64.48		

From Table 2, in immediate test of Passage 1, $X^2 = 69.334$; $p = 0.000 < 0.05$, in delayed test, $X^2 = 55.093$; $p = 0.000 < 0.05$; From Table 3, in immediate test of Passage 2, $X^2 = 69.429$; $p = 0.000 < 0.05$; and in delayed test, $X^2 = 33.880$; $p = 0.000 < 0.05$. Therefore, there was a significant difference in retention among the three tasks. As is reflected in Table 2 and Table 3, both in immediate test or in delayed test, Task C with higher involvement load produced the best vocabulary retention; as for Task B, listening comprehension questions with marginal glosses relevant to the questions produced better retention than Task A, listening comprehension questions with marginal glosses irrelevant to the questions.

5. Conclusion

As was demonstrated by the experiment, the task with higher involvement load, in this experiment, namely, task requiring writing secured the best retention effects, task of multiple choices with marginal glosses relevant to the task produced better retention result than task of multiple choices with marginal glosses irrelevant to the task, which produced the lowest retention.

The result is in accordance with what has already been achieved by Hulstijn and Laufer (2001) in the experiment done among adult EFL learners in Israel and the Netherlands to investigate whether retention of incidental vocabulary acquisition is contingent on amount of task-induced involvement. Their experiments showed that the task of composition with incorporated target words produced best retention results, and the task of reading comprehension plus filling in target words produced better results than task of reading comprehension with marginal glossing for target words.

The results of the experiment further proved the validity of Hulstijn and Laufer's Involvement Load Hypothesis which makes it possible to translate and operationalize general cognitive notions of depth of processing and elaboration in terms of L2 vocabulary learning tasks.

In conclusion, the Involvement Load Hypothesis is applicable to the incidental vocabulary acquisition. The study demonstrates that in listening practice, incidental acquisition does occur and task with higher involvement load does produce better retention. The vocabulary size strongly influences retention effects when the task involves moderate involvement load. Task with either too much or too less involvement load does not bring significant difference between vocabulary size and retention effects.

6. Pedagogical Implications

As is known, vocabulary is essential in successful English language learning. Students can enlarge their vocabulary to a great extent through incidental learning during reading activities (Hulstijn, Hollander & Greidanus, 1996). It is also true that besides reading, listening is an important way of language input as well. Students can enlarge their vocabulary to a certain degree through listening activities. So it is advised that teachers and students make good use of listening activities to increase the chances of enlarging vocabulary.

As is turned out in the experiment, incidental learning is related to the degree of involvement load in the task, and the task with higher involvement load exerts better retention. Therefore, teachers, researchers and listening exercise designers may as well consider designing more desirable tasks conducive to vocabulary acquisition during listening activities. We would like to suggest the following ideas for their reference:

1. Design tasks with different involvement load for different words. It is not practical to apply just one kind of tasks to all listening materials. For words that are important and necessary (e.g. words of high frequency or words with difficult and useful collocations) to be acquired, tasks of higher involvement load such as writing would be suitable. Time students spend on this task would pay off. For words that are relatively easy to use, task

of moderate load would be enough. Exercises such as multiple choices with target words relevant to the task would be enough to make students highly motivated, and obtain satisfying retention effects. While for words that are too difficult to learn or that are temporarily unnecessary to learn, it is not necessary to bother to design tasks with high involvement load.

2. Explore appropriate acquisition tasks for students of different motivation. Different students have different motivations to learn English. For those who have higher motivation and commitment to learn, tasks inducing higher involvement load would be suitable. They would be willing to finish them in earnest and concentration and good retention would be expected. For those who have lower motivation to learn, too many demanding tasks would contrarily influence their motivation and decrease their interest to learn; in this case, tasks with moderate involvement would be practical with them.

3. Consider suitable tasks with regard to class time. Tasks with different involvement load require different time allotment. Tasks inducing higher involvement load is usually more time consuming. The higher the involvement is, the more time it requires. If there is enough time for doing the tasks, it would be acceptable to adopt the tasks of higher involvement load so that more words would be acquired. If time is limited, tasks of moderate load would be better to ensure desirable retention effects.

4. Be always ready to explore better tasks that would facilitate incidental vocabulary learning. Tasks with moderate and high involvement load foster vocabulary acquisition. Besides the two tasks, it is advisable that teachers and exercise designers explore other tasks that also induce moderate or high involvement load to facilitate incidental acquisition. At present, the existing listening exercises are multiple choices, blank filling, and short answer questions, etc. These exercises can help improve test learners' listening skills. But could educators not try any other methods to make a little change to these exercises in order to make incidental acquisition possible during listening practice?

Vocabulary learning is a project that draws many researchers and teachers' attention. Incidental vocabulary acquisition as a complementary means to intentional learning has aroused a lot of scholars' interests. The relative researches done before in reading shed light on this study. On the basis of previous researches, the authors have made their first attempt to investigate the application of the Involvement Load Hypothesis in incidental vocabulary acquisition in EFL listening, in the hope that researchers and language teachers pay more attention to incidental vocabulary acquisition in EFL listening, and that researchers and teachers may do a lot more to help learners to enlarge the vocabulary size in more than one way.

Notes:

CET, short for College English Test, is a national test to test college students' (non-English majors) English language proficiency. There are two test levels: CET4 and CET 6.

References:

- Cho, K. S., & S. Krashen. (1994). Acquisition of vocabulary from the sweet valley kids series. *Journal of Reading*, 37, 662-667.
- Craik, F. I. M., & E. Tulving. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology: General*, 104, 268-294.
- Craik, F. I. M., & R. S. Lockhart. (1972). Levels of processing: a framework for memory research. *Journal of*

- Verbal Learning and Verbal Behavior*, 11,671-684.
- Duan, Shiping, & Chensong, Yan. (2004). The effects of multiple annotations on incidental vocabulary acquisition. *Foreign Language Teaching and Research (bimonthly)*, 36, 213-218.
- Ellis, R. (1995). Modified oral input and the acquisition of word meanings. *Applied Linguistics*, 16, 409-41.
- Ellis, R., & X. He. (1999). The roles of modified input and output in the incidental acquisition of word meanings. *Studies in Second Language Acquisition*, 21, 285-301.
- Ellis, R., Y.Tanaka, & A. Yamazaki. (1994). "Classroom interaction, comprehension, and the acquisition of L2 word meanings". *Language Learning*, 44, 449-491.
- Gai, Shuhua (2003). Empirical study on incidental vocabulary acquisition of English majors. *Foreign Language Teaching and Research (bimonthly)* 35, 282-286.
- Hulstijn, J. H. (1992). Retention of inferred and given word meanings: Experiments in incidental learning. In P. J. Arnaud & H. B'joint (Eds.), *Vocabulary and Applied Linguistics*. London: Macmillan, 113-125.
- Hulstijn, J. H., M. Hollander, & 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.
- Joe, A. (1995). The value of retelling activities for vocabulary learning. *Guidelines*, 17, 1-8.
- Joe, A. (1998). What effects do text-based tasks promoting generation have on incidental vocabulary acquisition? *Applied Linguistics*, 19, 357-377.
- 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.
- Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *The Modern Language Journal*, 73, 440-464.
- Laufer, B., & J. H. Hulstijn. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics*, 22, 1-26.
- Nagy, W. E., P. A. Herman, & R. C. Anderson. (1985). Learning words from context. *Reading Research Quarterly*, 20, 233-253.
- Nagy, W. E., R. C. Anderson, & P. A. Herman. (1987). Learning word meanings from context during normal reading. *American Educational Research Journal*, 24, 237-270.
- Newton, J. (1995). Task-based interaction and incidental vocabulary learning: A case study. *Second Language Research*, 11, 159-177.
- Newton, J. (2001). Options for vocabulary learning through communication tasks. *English Language Teaching Journal*, 55, 30-37.
- Paribakht, T. S., & M. Wesche. (1997). Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition. In Coady, J. & T. Huckin (Eds.), *Second Language Vocabulary Acquisition*. Cambridge: Cambridge University Press, 174-200.
- Schmidt, R. (1994). Implicit learning and the cognitive unconscious: Of artificial grammars and SLA. In N. C. Ellis (Ed.), *Implicit and explicit learning of languages*. London: Academic Press, 165-210.
- Swanborn, M. S. L., & K. de Glosper. (2002). Impact of learning purpose on incidental word learning from context. *Language Learning*, 52, 95-117.
- Wesche, M. B., & T. S. Paribakht. (2000). Reading-based exercises in second language vocabulary learning: An introspective study. *The Modern Language Journal*, 84, 196-213.

Appendix

Script of Passage 1:

There is probably no place anywhere in the civilized world today that is not visited by tourists. The travel business offers a vast network of services for the comfort and convenience of travelers. “*Package tours*” that include everything from transportation to hotels, meals, and sightseeing trips are offered by airlines, railroads, and bus lines. Some steamship companies specialize in *cruises* to different parts of the world. The cruises range from a few days to many months. There are also private agencies that organize tours for young people fourteen and over. A visitor to a strange land today will never be at a loss for information about the place he is visiting. There are *innumerable* travel books and guidebooks for practically every spot on the globe. The books advise what to see, wear, and buy, and describe restaurants and hotels. Governments, states, and cities publish *pamphlets* listing important sights for visitors.

People may make their own arrangements for a trip, or they may prefer to use the services of a travel agency. A travel agency will offer transportation tickets, reserve hotel rooms, and arrange for anything from a tour through London or San Francisco to a *safari* in Africa. Travel agencies, some run by governments, are to be found in every country. Among the largest travel agencies are Thomas Cook & Son, which *originated* in England, and the American Express Company (AAA) has offices in London, Paris, Rome, and other places. It plans trips and makes hotel and motel reservations in addition to its regular services to *mobilists*.

Script of Passage 2:

Every four years, the best athletes from countries around the world come together in the spirit of peace and friendship to compete in the Olympic Games. With the lighting of the Olympic flame the games begin—the Olympic spirit kept alive. That flame has been brought many thousands of miles by relay runners all the way from Olympia, in Western Greece, where the ceremony began 2700 years ago. This simple ceremony, and the lighting of the torch, is the spark that renews the Olympic flame wherever the games are played. The games *symbolize* the early Greeks’ ideal of man’s unity, their vision of peace, and of human *perfection*.

The Olympic began as a religious ceremony. The First Games in recorded history took place in the year 776 B.C. All the Greek city-states participated. States at war with each other would end *hostilities* for the *duration* of the Games.

The Olympic *motto* is universally accepted as “Swifter, Higher, Stronger.” One athlete from the games host country takes an *oath* at the Opening Ceremony on behalf of all the competing athletes: “In the name of all competitors, I promise that we shall take part in these Olympic Games, respecting and *abiding by* the rules which govern them, in the true spirit of *sportsmanship*, for the glory of sport and honor of our teams.”