Iranian Journal of Language Issues (IJLI)
Vol 1, No. 1, 2015

Form-focused EFL Vocabulary Learning: A Case for Translation

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Abstract

The purpose of the study was four-fold: first to investigate the predictive adequacy of the Task-Induced Involvement Load Hypothesis which contends that higher-load inducing tasks yield better retention rates in incidental learning situations; second, to examine whether type of dictionary search could affect vocabulary retention; third, to investigate the effect of translation direction on retention rate; and finally to determine the most effective tasks. To meet these ends, 188 participants, in 6 groups of EFL learners - aging 19-25, majoring in various fields of engineering sciences were assigned to the study. A total of 20 unknown words were selected out of a 60-word list from the reading material prepared for participants a week prior to the beginning of the treatment phase. The immediate post-test, which was administered immediately after the treatment, and the delayed post-test, which was administered after a two-week interval were used to measure the retention of the 20 target words. The results of the one-way ANOVA showed no significant difference among the participants' performance in all task groups except for three of the tasks on the immediate post-test. Furthermore, no significant effect was found for dictionary type and translation direction. Lastly, translational tasks were found to be as effective as sentence production tasks.

Key Words: Task-Induced Involvement Load Hypothesis, Word Retention, Task, Word Learning, Translation.

Received: April 2013; Accepted February 2014

1. Introduction

Mastering a second language mainly depends on learning a large number of vocabularies which might be fostered by different types of tasks (Browne, 2003; Hulstijn & Laufer, 2001; Schmitt, 2008). The expanding bodies of experimental studies indicate that applied linguistics, language teachers and learners are investigating to find out what the most effective approach can be; however, the issue of what method or technique yields the best results is a matter of controversy among researchers of the field. As a response to this state of indeterminacy as to deciding the most effective approach to word instruction, the present study was designed to investigate what tasks can contribute more to vocabulary retention and assist EFL learners to accelerate their speed in the cumbersome task of learning huge numbers of L2 words in the course of SLA. Thus, the adequacy of the Involvement Load Hypothesis in an incidental vocabulary learning context similar to previous studies conducted by Jing and Jianbin (2009), Keating (2008), Kim (2008) and Hulstijn and Laufer (2001) was probed.

2. Literature Review

Vocabulary learning is at the very heart of language acquisition, since vocabulary specialists all together concur that lexical competence is central to communicative competence which is the ability to communicate effectively and properly (Allen, 1983; Coday & Huckin, 1997; Hunt & Beglar, 2005; Kim, 2008; Laufer, 1990; Lewise, 1997; Nation, 1990; Nation & Carter, 1989; Read, 2004; Richards, 1980; Schmitt, 2008).

Although there is still no solid consensus about whether to teach vocabulary intentionally or not, i.e., the focus on form issue, the need for vocabulary instruction in EFL context is a necessity that is recognized by most teachers and learners.

Focus on form has received considerable attention (Doughty & Williams, 1998a; Ellis, 2001; Long & Robinson, 1998; Lyster, 1998a, 1998b; Lyster & Ranta, 1997), as researchers and theorists have called for an integration of meaning-focused and form-focused instruction in the L2 classroom (Ellis, 2001; Hulstijn, 2003; Loschky & Bley-Vroman, 1993; Skehan, 1998).

Laufer and Girsai (2008) claim that Form-Focused Instruction (FFI) has been developed in the context of grammar learning, but it is now extended to vocabulary as well, and can be of two types: Focus on Form (FonF) and Focus on Forms (FonFs). The first is a pedagogical approach defined by Long (1991) as drawing learners' attention to linguistic elements during

a communicative activity. Focus on Forms, on the other hand, is an approach similar to the 'traditional' method', which entails teaching discrete linguistic structures in separate lessons in a sequence determined by syllabus writers, quite in harmony with Long's (1991) definition.

It should be taken into account that the overall finding of the researches to date conducted in the domain of vocabulary learning is that FFI, notwithstanding which approach, whether the Focus on Form or the Focus on FormS is utilized, is beneficial to vocabulary teaching and learning. In comparative researches, the proportions of the retained words have turned out to be usually superior in FFI conditions in contrast to non-FFI ones; also, in non-comparative studies learners, on average, have been able to retain more than thirty percent of the instructed words after FFI tasks (Laufer, 2005). These findings can be explained and justified with reference to Noticing Hypothesis as proposed by Schmidt (1990, 1994a). In short, the Noticing Hypothesis can be regarded as the theoretical underpinning of FFI, stating that learners must consciously notice forms and the meanings that these forms realize in the input in order to convert L2 input into intake for learning (Schmidt 1990, 1994a). It is worthy of mentioning that the advocates of Noticing Hypothesis have found FFI beneficial, and consequently, the increased awareness of its facilitative role in its both types has brought it to lime light of the EFL practitioners. Hence, it was invited to the context of classrooms (de la Fuente, 2006; Jahangard, 2010a, 2010b, 2010c; Jahangard & Zare, 2011; Laufer & Girsai, 2008; Park, 2010).

Later on, Laufer and Hulstijn (2001) attracted by Schmidt's Noticing Hypothesis, attention and elaboration on features of the new words which was supported by psychologists, sought to explain the efficiency of vocabulary learning in terms of the involvement load the different tasks induced in incidental teaching contexts. The original claim was that if more attention is paid to formal and semantic features of words, and if richer associations are made with the existing knowledge of the learners, more of the new information will be retained later. However, the problem with the claim was that it failed to provide practical measures to operationalize the concepts of attention and elaboration. To provide a more observable and measurable definition of the depth of processing theory proposed by Craik and Lockhart (1972) whose cornerstones were attention and elaboration, Laufer and Hulstijn (2001) proposed the motivational-cognitive construct of involvement which embraced three basic involvement components: need, search, and evaluation.

Due to the prominent role of motivation and need in language learning, they also regarded motivation and need as contributing factors to promote success among second language

learners. Although information-processing such as elaboration and attention, as well as, affective components of cognition such as need and motivation have been the focus of attention and have been discussed in literature, Laufer and Hulstijn (2001) believe that a substantial progress in the domain of L2 vocabulary learning has not yet occurred. Thus, they proposed the construct of task-induced involvement with its three cognitive and motivational dimensions: *need, search, and evaluation,* a hypothetical construct which in its own turn has motivated many research studies to examine its theoretical and empirical adequacy.

Laufer and Hulstijn (2001 p. 14) defined *involvement* as "a motivational-cognitive construct which can explain and predict learners' success in the retention of hitherto unfamiliar words". They developed the involvement construct and identified *need*, *search*, and *evaluation* as the components of involvement and its index is conditional upon the presence or absence of each component in an activity for vocabulary learning via different types of tasks. The new construct paved the way for putting forward an operationalized definition for the traditional concepts such as 'attention', 'noticing', 'elaboration', and 'motivation' into task-specific components.

According to Laufer and Hulstijn's (2001) *need* is a motivational, non-cognitive component of involvement. It encompasses two dimensions: moderate and strong. It is moderate while it is imposed externally (e.g., when the teacher as an external agent asks learners to fill in the blanks or originate new sentences). On the other hand, it is strong when learners themselves intend to do something or they are internally imposed, (e.g., when learners look up the meaning of a new word while they are reading a text). The two cognitive components of the involvement are *search* and *evaluation* which deal with information processing; they are closely related to noticing proposed by Schmidt (1994a, 1994b, 2000), and attention. *Search* is defined as the learners' attempt to find the meaning of an unfamiliar word by consulting a teacher or dictionary (Laufer and Hulstijn, 2001). It is likely to have search as present or absent during the task completion in the pedagogical context of classroom.

According to Laufer and Hulstijn (2001), *Evaluation* is defined as comparing the words with each other and selecting the most appropriate ones according to the specific context. Laufer and Hulstijn (2001) stated that "evaluation implies some kind of selective decision based on a criterion of semantic and formal appropriateness (fit) of the word and its context" (p. 15). Two types of evaluation were proposed by them; moderate and strong. It is moderate if a comparison is made between some words in order to fit a specific context, such as fill in the blanks exercises. The strong type demands "making a decision

about additional words which will combine with the new word in an original sentence or text" (ibid., p. 15) when the learners are to originate new sentences. Task Induced Involvement Load Hypothesis was postulated by Laufer and Hulstijn (2001) based on the components of involvement. Involvement load is defined as the "combination of the presence or absence of the involvement factors Need, Search, and Evaluation" (p.15). Accordingly, they made the assumption that "other factors being equal, words which are processed with higher involvement load will be retained better than words which are processed with lower involvement load" (p.15), a postulate, which was in line with Craik and Lockhart's (1972) claim that the words processed deeply would be retained better.

Keating (2008), Kim (2008), Laufer (2003, 2005), Jahangard (2010c), Jahangard and Zare (2011) and Yaqubi, Rayati and Allemzade Gorgi (2010) conducted empirical studies to investigate the adequacy of Task-Induced Load Involvement Hypothesis whose results varied from full to partial support of the theory.

Due to the broad consensus that is emerging on the beneficial effect of Form-Focused-Instruction in line with those of de la Fuente (2006), Mackey, Polio and McDonough (2004), and Shak and Gardner (2008), in the present study, participants were involved in vocabulary learning through form-focused activities which catered them more rehearsal opportunities. In addition, this study tried to examine whether dictionary type played any significant role in vocabulary learning which was almost missing in the previous studies within the theoretical framework of Involvement Load Hypothesis proposed by Laufer and Hulstijn (2001).

Although the effectiveness of translation learning is well attested by the existing research studies in the literature of the SLA, it is still forbidden in the teaching contexts by some practitioners and theory makers (Cook, 2010). The findings can also shed light on the issue of whether to employ L1 in the instruction of L2 lexis or not.

Research Questions

1. Do different task-induced involvement loads have differential impacts on students' vocabulary learning?

2. Do the sentence production tasks carrying the same index of involvement but different types of dictionary search have differential impacts on vocabulary acquisition and retention?

3. Does translation direction, i.e., L1 to L2, or L2 to L1, make any difference in vocabulary acquisition and retention?

4. Which of the tasks below yield better acquisition and retention rates?

a. L1 to L2 translation

b. L2 to L1 translation

c. Sentence production

d. Fill in the blanks

3. Methodology

3.1. Participants

The participants in this study were the Iranian EFL undergraduate students, male and female aging from 19 to 23, majoring in various fields of engineering sciences at Sharif University of Technology participating in General English (GE) classes as part of their educational curriculum. The overall number of participants taking part in the study was 240 at first; however, only the data from 188 of the participants were taken into analysis due to their absence in the delayed post-test. Additionally, all of the participants were Persian native speakers.

3.2. Instrumentation

3.2.1. Target Vocabulary

A total of 20 unknown words were selected out of a 60-word list from the reading material which was prepared for the participants a week prior to the beginning of the treatment phase. The word list was administered to all participants to determine whether the target vocabularies were indeed unknown to each individual participant who was required to provide the Persian equivalents (L1) or English meanings of the words in the 60-word list. By so doing, the familiar words to the participants were discarded and the 20 target words to which none of the participants had provided accurate responses and consequently were unfamiliar to them were selected for the study.

The target words included: 1 adverb (*virtually*), 7 adjectives (*succinct, sluggish, offbeat, obtrusive, meteoric, detrimental, unequivocal*), 3 nouns (*setback, primers, Antipodes), 3 verbs (Hamper, Impoverish, demystify*), 2 phrasal verbs (we*an off, get down to*), and 4 expressions (*the hunt is on, can't see the wood for the trees, to be out of this world, to be quick on the uptake*).

3.2.2. Reading passage

The 20 unfamiliar words were embedded in a passage. The reading text, which was about declining standards of literacy in European and North American schools, and consisting of 868 word tokens, was an article extracted from the book *IELTS 2*. The passage was followed by 6 comprehension questions whose answers were contingent on knowing the target vocabulary.

3.2.3. Tasks

Tasks were utilized in the study with the target words in bold print to help the participants notice the words (Schmidt, 1994). Six types of tasks were designed with variant indices of involvement based on Hulstijn and Laufer (2001) hypothesis as follows:

Task1: a reading passage followed by six reading comprehension questions, L2 to L1 translation of extracted sentences from the passage embedding the target items, and a marginal glossary (Need=1, Search=0, Evaluation= 1 » Involvement Load= 2); Task 2: the same reading passage followed by the same reading comprehension questions, L1 to L2 translation of prefabricated sentences embedding the target items and bilingual dictionary search (Need=1, Search=1, Evaluation= 2 » Involvement Load= 4); Task 3: the same reading passage followed by the same reading comprehension questions, L2 to L1 translation of extracted sentences from the passage embedding the target items, and bilingual dictionary search (Need=1, Search=1, Evaluation= 1 » Involvement Load= 3); Task 4: the same reading passage followed by the same reading comprehension questions, sentence production while target items were utilized and bilingual dictionary (Need=1, Search=1, Evaluation= 2 » Involvement Load= 4); Task 5: the same reading passage followed by the same reading comprehension questions, sentence production and monolingual dictionary search (Need=1, Search=1, Evaluation= 2 » Involvement Load= 4); and Task 6: the same reading passage followed by the same reading comprehension questions, fill in the blanks by the target items and monolingual dictionary search (Need=1, Search=1, Evaluation= 1 » Involvement Load= 3).

3.2.4. Vocabulary tests

Three types of vocabulary tests were administered in this study: a pretest, an immediate posttest (immediately after the treatments), and a delayed posttest (two weeks after the treatment). Students' pre-knowledge of vocabulary was carefully controlled through the administration of a list of sixty-word which was explained in details earlier. Immediate and delayed posttests included 20 unknown words in the form of a multiple choice test

administered in the experiments. To assess initial learning of the target words, an immediate posttest was administered immediately after the treatment. Likewise, to determine the retention of the target words, a delayed posttest was administered two weeks later. The two posttests were equal in all respects except the arrangement of the target words and alternatives (see Appendices G and H). The answers were scored dichotomously. A correct answer received one point, an incorrect answer or a blank received a zero to a total of twenty points. It has to be noted that the reliability of the post-test was assessed among 25 participants other than those of the main study, and it was 0.78. In addition, the Cronbach's alppha reliability index of the post test was frond to be 0.82.

3.3. Procedure

3.3.1. Data Collection

An incidental acquisition condition was adopted in the present study, i.e., the target words were taught without the learners' deliberate attempt to learn or memorize the lexical items. Hence, the learners were not told that they were participating in an experiment, at the end of which, they would be tested. Each step of the study was conducted during regular class time and took the same amount of time in the twelve parallel classes that represented the six task groups. However, it is worth mentioning that the participants were informed that the activity they were going to get involved in was a research study whose findings would probably contribute to the teachers' understanding and practice of language instruction in future, and they consented to take part in the experiment. Moreover, the researcher who was the actual teacher of the classes promised them to consider the subjects' participation in the research as a positive point in their final course evaluation.

To collect the data, sitting for three sessions in each task group was required, i.e., one session for the pretest to gauge the participants' vocabulary knowledge, one for the treatment and immediate vocabulary post-test which was administered on the same day, and one session for the delayed vocabulary post-test.

The participants were randomly assigned into six task-type groups; meanwhile, time on task was constant in all task groups- with an average of 75 to 80 minutes. In other words, the same amount of time was allocated to various types of tasks.

A week before the treatment session, the list of sixty-word vocabulary pretest, extracted out of the predetermined passage, was administered among all participants in the first session. Each task-type group followed four phases: reading, post-reading activity including reading comprehension questions, a task, and a vocabulary post-test.

Following the completion of the vocabulary list administered a week earlier, participants received a three-page passage along with the sheet of comprehension questions. (It is worth mentioning that the researchers were actual teachers of the classes and they promised the learners to assign a positive bonus mark for their participation in the research study). All of the participants in each class were asked to perform specific type of activities and follow the procedure step by step during the scheduled time and they were allowed to refer back to the text to accomplish the comprehension questions. Participants' task was to read the text silently and individually in order to answer the six comprehension questions that followed the main passage, it is worthy of mentioning that they were permitted to share their ideas when answering the comprehension questions and performing the tasks. For task 1, participants had the opportunity to utilize the marginal glossary; while in other tasks dictionary search was obligatory to find the meaning of the unknown words. Then, each task-type group performed the relevant task as mentioned earlier. After doing so, the participants were asked to return all the papers which had to be completed within the allowed time. While participants were totally unaware of upcoming test the immediate vocabulary test was administered to rate the initial vocabulary acquisition and it lasted 12 minutes. Due to the nature of the study, incidental learning, the participants were not informed of the upcoming two-week delayed post-test which was administered to assess the rate of retention.

3.3.2. Data Analysis

The study included one dependent variable, i.e., the participants' scores on the immediate and delayed vocabulary tests, and one independent variable, i.e., the task type - the level of the task-induced involvement. To address the research questions, SPSS Version 19.0 for Windows Evaluation was utilized and the data were analyzed through the one-way ANOVA procedure. The alpha level was set at .05, and the post-hoc Scheffe's tests were run to examine any significant differences among the variables.

4. Results

The data were measured on an interval scale and the groups were independent, i.e., none of them participated in more than one task group. The assumption of normality was tested through the ratios of skewness and kurtosis over their respective standard errors. As it is evident from Table 1 all of the ratios were within the ranges of +/- 1.96. Thus, it could be concluded that data did not show any significant deviations from normality.

Table1. Normality Tests

Tasks		Skewness			Kurtosis		
		Statistic	Std. Error	Normality	Statistic	Std. Error	Normality
Task 1	Immediate posttest	-0.50	0.51	*-0.97*	0.15	0.99	*0.16*
	delayed posttest	-0.25	0.51	*-0.48*	-1.05	0.99	*-1.06*
task 2	Immediate posttest	-0.56	0.35	*-1.57*	-0.37	0.70	*-0.53*
	delayed posttest	-0.10	0.35	*-0.29*	-0.56	0.70	*-0.81*
task 3	Immediate posttest	-0.81	0.43	*-1.89*	0.37	0.83	*0.45*
	delayed posttest	-0.50	0.43	*-1.18*	-0.36	0.83	*-0.43*
task 4	Immediate posttest	-0.47	0.43	*-1.11*	-0.61	0.83	*-0.73*
	delayed posttest	-0.28	0.43	*-0.67*	-0.64	0.83	*-0.76*
task 5	Immediate posttest	-1.02	0.41	*-2.45*	0.35	0.81	*0.43*
	delayed posttest	-0.74	0.41	*-1.79*	0.63	0.81	*0.77*
task 6	Immediate posttest	-0.32	0.42	*-0.77*	-1.01	0.82	*-1.22*
	delayed posttest	-0.25	0.42	*-0.60*	-0.70	0.82	*-0.85*

Immediate post-test

Table 2 shows that the probability associated with the Levene's F value of 1.09, i.e., .365 is higher than the alpha level of .05. Thus, it can be concluded that the groups enjoyed homogenous variances on immediate post-test.

Table2. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.095	5	182	.365

Table3. One-Way ANOVA Immediate Posttest of Vocabulary by Groups

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	212.526	5	42.505	3.983	.002
Within Groups	1942.091	182	10.671		
Total	2154.617	187			

F-observed value calculated to compare the mean scores of the six groups on the immediate posttest of vocabulary is 3.98 (Table 3). This amount of F-value is higher than the critical value of F at 5 and 182 degrees of freedom, i.e., 2.26. Based on these results, it can be concluded that there were significant differences between the mean scores of some groups on the immediate posttest of vocabulary learning.

It was found that the participants in Task1 with the lowest involvement index of 2, (M= 16.10) on the immediate post-test performed the best. The figures show that the lowest mean scores (M=12.54) was obtained from Task 6 with an index of 3 (Table 4).

Table4. Descriptive Statistics Immediate Posttest of Vocabulary by Groups

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
task1	20	16.100	3.83	0.85	14.30	17.89	7	20
task 2	45	14.97	3.59	0.53	13.89	16.05	6	20
task 3	30	15.60	2.72	0.49	14.58	16.61	9	20
task 4	30	14.86	3.10	0.56	13.70	16.02	9	20
task 5	32	14.96	2.90	0.51	13.92	16.01	8	19
task 6	31	12.54	3.35	0.60	11.31	13.77	4	17
Total	188	14.77	3.39	0.24	14.28	15.26	4	20

Table5. Post-Hoc Scheffe's Tests

(I) Tasks	(J) Tasks	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
task1	task 2	1.1222	.8779	.896	-1.831	4.076
	task 3	.50000	.9430	.998	-2.673	3.673
	task 4	1.2333	.9430	.887	-1.939	4.406
	task 5	1.1313	.9311	.915	-2.001	4.264
	task 6	3.5516	.9369	**.016**	.400	6.704
task 2	task 3	-.6222	.7700	.985	-3.213	1.968
	task 4	.1111	.7700	1.000	-2.479	2.701

	task 5	.0090	.7554	1.000	-2.532	2.550
	task 6	2.4294	.7625	.076	-.136	4.995
task 3	task 4	.7333	.8434	.979	-2.104	3.571
	task 5	.6312	.8302	.989	-2.162	3.424
	task 6	3.0516	.8366	**.024**	.237	5.866
task 4	task 5	-.1.021	.8302	1.000	-2.895	2.691
	task 6	2.3183	.8366	.181	-.496	5.133
task 5	task 6	2.4204	.8232	.130	-.349	5.190

**Note.* The mean difference is significant at the 0.05 level.

The comparison between Task 1 and Task 6 showed that there was a significant difference between the participants' mean scores on the immediate post-test (MD= 3.55) (see Table 5). Furthermore, post-hoc Scheffe's tests also verified that there was a significant difference ($P \leq .05$) between the mean scores of the participants.

Mainly the highest mean scores go to translational tasks (Task 1, Task2 and Task3), i.e., L2 to L1 translation task with a marginal glossary and an index of 2, (M=16.10), L1 to L2 translation task plus bilingual dictionary search with an index of 4(M=14.97), and finally L2 to L1 translation task plus bilingual dictionary search with an index of 3(M=15.60). As it is evident the participants in Task 3 with lower involvement load performed slightly better than those of Task 2, though the mean difference was non-significant (MD=0.62).

Besides the mentioned tasks, if we compare sentence Task 4 and Task 5 (index = 4) with Task 3 (index = 3), Task 3 participants performed slightly better than Task 4 and Task 5 (see Table 5). Neither any significant difference ($P \leq .05$) was found between the mean scores of the learners in Task 3 and Task 4, nor between the mean scores of the participants in Task 3 and nor those of Task 5 ($P \leq .05$) (see Table 5).

In addition, when Task 3and Task 6 with similar indices of 3 were compared with each other, a significant difference ($P \leq .05$) was found between the mean scores of the learners (see Table 5). A higher mean score was gained by the participants of Task 3 (M= 15.60), and

a lower one was achieved by those in Task 6 (M=12.54) on the immediate post-test (see Table 4). Generally, very close mean scores were obtained among all tasks on the immediate post-test, except for Task 6 when compared with Tasks 1 and 3.

Delayed post-test

A one-way ANOVA was run to compare the mean scores of the six groups on the delayed posttest of vocabulary in order to answer the research questions raised in this study. Before presenting the results of the one-way ANOVA, it should be noted that the six groups had homogeneous variances. Table 6 displays Levene's F-value at the alpha level of .05, indicating that the groups had homogenous variances.

Table6. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.248	5	182	.289

F-observed value was calculated to compare the mean scores of the six groups on the delayed posttest of vocabulary ($F = 2.16$, d.f. = 182, $P \leq 0.5$) (see Table 7). Based on these results it is possible to draw a conclusion that there were not any significant differences between the mean scores of the six groups on the delayed posttest of vocabulary.

Table7. One-Way ANOVA Delayed Posttest of Vocabulary by Groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	140.051	5	28.010	2.160	.060
Within Groups	2360.183	182	12.968		
Total	2500.234	187			

Table 8 illustrates the descriptive statistics for the six groups on the delayed posttest of vocabulary. It was found that the participants in Task 1with the lowest involvement load of 2, and the M= 13.50 on the delayed post-test performed the best. The figures display that the lowest mean score (M=10.65) goes to Task 6 with an index of 3. Generally speaking, no significant difference was observed among the mean scores of the tasks.

Table8. Descriptive Statistics Delayed Posttest of Vocabulary by Groups

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Task 1	20	13.50	2.86	0.64	12.16	14.84	8	18
Task 2	45	12.51	3.58	0.53	11.43	13.59	5	18
Task 3	30	13.00	3.33	0.61	11.76	14.24	6	18
Task 4	30	12.37	4.03	0.74	10.86	13.87	4	20
Task 5	32	12.94	3.15	0.56	11.80	14.07	4	18
Task 6	31	10.65	4.24	0.76	9.09	12.20	1	17
Total	188	12.44	3.66	0.27	11.91	12.96	1	20

5. Discussion

Schmidt's (2001) Noticing Hypothesis accentuated the notion that language acquisition cannot be acquired unless learners notice the form, understand the meaning and establish the form-meaning mapping between them to convey the target message, which is in line with Craik and Lockhart's (1972) *Depth/Levels of Processing Hypothesis* . Actually, they laid the basic foundations by arguing that an item receiving more attention, and involving more manipulation, will be remembered better. Later, Hulstijn and Laufer (2001) built up their theory on those concepts and argued that *involvement* in vocabulary learning encompasses three components of need, search, and evaluation which led the previous notion to be operationalized. Taking the mentioned hypotheses into consideration, the combination of both FonFs and FonF was adopted in the present study. Target words were initially introduced to participants in the structure of reading comprehension in a fully communicative manner (FonF), and for further rehearsal, word focused activities were administered among participants such as translation, sentence production and gap-filling tasks (FonFs).

Regarding the first research question, i.e., whether different task-induced involvement loads have differential impacts on students' vocabulary in an incidental learning context, the results on the immediate post-tests demonstrated that Involvement Load Hypothesis is partially supported. To answer the above question, the performance of the participants in Task 4 and Task 5 were compared against those of the participants in Task 2 with the same involvement load of 4. In harmony with the predictions of the Involvement Load Hypothesis, retention was almost the same among the participants. In addition in line with Noticing Hypothesis participants in all groups noticed the target items in the text and rehearsed them through the assigned tasks.

However, comparison of Task 3 and Task 6 with the same involvement load of 3 (+ need, +search, +evaluation) showed quite contradictory results. Both task groups' participants accomplished the specific tasks in an incidental vocabulary context and followed Form Focused Instruction and according to Noticing Hypothesis they noticed the target items via specific tasks. They also carried a search of the new vocabularies by consulting monolingual dictionaries. The only disparity that existed between task groups was the type of activity, i.e., translation in Task 3 and gap-filling in Task 6, in which they noticed and rehearsed target items. Following Laufer and Girsai (2008) in the current study, the index of evaluation for Task 3 with an L2 to L1 translation activity was assigned 1 and in line with Laufer and Hulstijn (2001) the evaluation index for Task 6 with gap-filling activity was assigned 1, as well. It was expected to meet similar performance of participants in both tasks, however, the results showed a relatively superior performance of those in Task 3. In Task 6, learners had to evaluate target words against each other and supply the most appropriate one to fill each gap, which leads to the moderate type of evaluation. It should be brought to focus that, the learners in Task 3, not only were asked to translate the English sentences (embedding the form of new words) into Persian, but also were obliged to develop form-meaning linkage and focus attention on surrounding words, as well, to create the entire context. On comparison, the Involvement Load Hypothesis falls short of a sound prediction. Moreover, it seems the participants in Task 6 stood in benefit, since the instrumentation for measuring the vocabulary learning, i.e., the multiple-choice test, might have positively affected their performance which is in line with Jahangard and Zare's (2011) justification. In other words, in Task 6, the learners made a decision to select the correct word among some alternatives for which they had to notice the immediate context in the item, a task which bore similarity to multiple choice test condition. It could be induced that learners in Task 6 (involving less mental effort) stood in benefit by being familiar with the multiple-choice test format, which is

in line with 'transferred appropriateness' posited by Bransford, Franks, Morris, and Stein (1979) in which, the retention score was higher in cases the learning process and the retention tasks were compatible, i.e., semantic-semantic, non-semantic-non-semantic, than the incompatible cases; therefore, they had the opportunity to yield a better retention score on vocabulary posttests. If there was not such an affinity between task processing and test, we might have observed even a lower performance of those in Task 6.

The differential performance of learners in Task 1 (index of 2) and Task 6 (index of 3), where the participants in the former outperformed those in the latter task, though statistically non-siginfican, the first possible justification could be made with reference to the type of task, i.e., translation, which plays a momentous role; numerous empirical studies have shown the value of L1 translations in vocabulary learning activities (Atkinson, 1987; Hulstijn, 1992; Jahangard, 2009; Jahangard, 2010a, 2010b; Jahangard, Moinzadeh & Tavakoli, 2010; Jahangard & Zare, 2011; Laufer & Girsai, 2008; Liu, 2008). Regarding O'Malley and Chamot (1990), an area of support for translation concerns the degree of mental effort it involves, so it can be introduced as a demanding task. In line with the Involvement Load Hypothesis and Laufer and Girsai's (2008) research, evaluation was equally assigned the value of 1 in Task 1, Task 3 (forward translation), and Task 6 (gap-filling). However, based on the researcher's teaching/learning experience, the mental effort which is induced by translation feels to be well above the amount of mental effort which is induced by fill-in-the-gap task, thus, the way evaluation is operationalized might need to be redefined.

The second plausible justification could be that the results of the present study also support the results of studies by Nation (1990), Hulstijn, Hollander, and Greidanus (1996), Laufer and Shmueli (1997), Webb (2007), and Jahangard (2009) who uniformly found that marginal gloss translations of target vocabularies in L1 lead to better learning and retention. Webb's (2007) justification that learning word pairs triggers learners' focus on establishing a link between L2 form and L1 meaning helps mind in establishing such a link, can be extended to the present study. Furthermore, our findings can be supported by Barcroft's (2002) findings, since learning word form might be demanding, the L1 can be applied to facilitate the form–meaning link (by providing an easy access to meaning) and let more cognitive resources be focused on form (as cited in Schmitt, 2008). Hence, L1 equivalent of target words makes it possible for learners to have access to the precise meaning of the unknown words in the text which reduces misunderstanding caused by L2 definitions in monolingual dictionaries.

In line with Jahangard's (2010c) explanation that to originate new sentences learners need to have the knowledge of different semantic relationships and associations across related lexical items, the knowledge of the grammatical functions of a word, i.e., part of speech, derivatives, the syntagmatic properties of words to be combined, and collocational restrictions of the words to be merged , a relatively better performance of those in Task 4 and Task 5 were expected; however, the results indicated no significant difference among the mean scores of the participants in Task 4, Task 5 and Task 6. As a plausible justification, it is possible to point to the existence of interaction between encoding processes (semantic and non-semantic encoding tasks) and the retention tasks (semantic and non-semantic retention tasks), a phenomenon investigated by Bransford et al. (1979) , also known as the 'transfer appropriateness' as mentioned earlier.

To provide a broader overview, translational tasks, i.e., Task 1, Task 2 and Task 3 were compared against non-translational tasks i.e., Task 4, Task 5 and Task 6. On comparison, the result revealed that translational tasks could be equally effective if not more, as non-translational tasks, considering the fact that there was actually no significant difference between the mean scores obtained from the different task groups. In addition, it should be taken into account that the participants in L2 to L1 translation tasks proved superiority which can be justified by Paribakht and Wesche's (1999) Lexicalization Hypothesis in which a lexicalized word represents an existing, or overlapping lemma in learners' mental lexicon. When inferring a word, once the available features are extracted, learners activate their L1 lemma from their mental lexicon to facilitate the acquisition of L2 word. Regarding the Involvement Load Hypothesis and its claim that tasks with higher involvement loads will be more effective than those with lower involvement loads in vocabulary acquisition, the results of the current study, contrary to some of the previous studies (Keating, 2008; Kim, 2008; Huljistin and Laufer, 2001), did not lend total support to the hypothesis. Rather, in line with Yaqubi, Rayati and Allemzade Gorgi's (2010) findings, delayed word retention was not a function of the involvement index, since the participants in different groups with varying involvement loads performed virtually equally and, on the contrary, the participants in Task 1 with the lowest index of involvement even performed the best of all on the immediate post-test. Hence, the contention that "the numerical values given to the motivational and cognitive elements, which in turn yield the involvement index, may not carry the same weight, or may have been roughly quantified" (Yaqubi, Rayati and Allemzade Gorgi's, 2010, p. 15) might be supported by the findings of the present research.

To answer the second research question, i.e., whether the sentence production tasks carrying the same index of involvement but different types of dictionary search have differential impacts on vocabulary acquisition and retention, Task 4 and Task 5 were compared.

The involvement loads in the productive tasks were as follow: Task 4: +need, +search, ++evaluation, Task 5: + need, +search, ++ evaluation, the only difference lied in types of dictionaries utilized. The participants in Task 4 consulted bilingual dictionaries, while the participants in Task 5 consulted monolingual dictionaries. In the light of the present findings, no significant difference was seen between the tasks on account of dictionary type. It was expected to find a better performance for those in the task group who had access to monolingual dictionaries, since they were provided with L2 definitions, L2 sentence examples and both explicit and implicit information about collocations and grammar. According to the researcher's intuition and experience, a better performance of those in monolingual dictionaries search condition was expected, because more mental effort is required both in a condition that learners have to work out the meaning of the new words from the contextual clues in example sentences provided by the monolingual dictionaries to delineate the meaning(s) of the unknown words; and in cases where the learners are provided by synonyms or antonyms-sometimes these synonyms and antonyms might be unknown to the learners- which force them to refer to additional entries to look up the meaning of the unfamiliar words. In the current study, those who used monolingual dictionaries generated more accurate sentences- though not reflected in the data analysis of the study-, maybe since they had attained more information regarding the lexical features of the target words; however, they retrieved the target words to the same extent as bilingual learners' dictionaries did on the post-tests. In Bruton's study (2007), it was revealed that dictionary use and teacher feedback can both contribute substantially to vocabulary development. However, it is worthy of noting that there was a compatibility between the task and the type of test in the study; while in the present study the learners' performed sentence production task, i.e., output-oriented task, and the instrumentation for measuring the retention of the target items was a recognition test in the multiple choice format which was not in the first place compatible with tasks and secondly, it might not be sensitive enough to measure partial learning, i.e., the added amount of learning as a result of task type. Consequently, the possible extra partial learning observed among monolingual dictionary groups, while producing new sentences more accurately during rehearsal phase, had disappeared on the post-tests. Actually, the only feature which was taken into measurement was the semantic feature of the target words, and

other related lexical features such as the orthographic, syntagmatic, and collocational were ignored.

A further possible interpretation could be that bilingual dictionary groups had been better able to link the L1 information gained from bilingual dictionaries as to the meaning(s) of the target words with the knowledge of the related L2 words despite their deprivation from the information about collocations and grammar (see Gu, 2003for further elaboration). While the measurement instrumentation was a recognition test rather than a production one, their possible weaknesses, i.e., producing non-grammatical sentences and ignorance of collocational norms, were somehow camouflaged.

In regard to the third research question, i.e., whether translation directions make any difference in vocabulary retention, Task 2 and Task 3 were compared.

Task 2 (L1 to L2 translation) induced the involvement index of 4 (+search, ++evaluation, + need), and Task 3 (L2 to L1translation) induced the index of 3 (+search, +evaluation, + need); the direction of translation accounts for the difference between the indices of involvement of the task groups at issue. It is also worth mentioning that both task groups consulted bilingual dictionaries. A particularly intriguing result in the current comparison is that no significant difference occurred as a result of translation direction, i.e., participants received as much benefit from translating from their L1 into their L2, as from their L2 into their L1. This runs counter to the claim by Laufer and Girsai (2008) that translation into L1 is invariably carried out with greater skill and less mental effort than translation into one's L2. The result of the present study revealed no significant effect for the direction of translation, which is in harmony with Hummel (2010) who reported similar results in his study in which direction of translation did not prove to be a significant factor for word retention. It is plausible to extend Hummel's justification to the current results that the affinity between learning process and test context -namely, 'transfer appropriateness'- can be considered as a critical factor. The inconsistency in task processing and test type might be the reason which caused the translation direction to miss the opportunity to emerge.

To answer the forth research question, i.e., 'which of the tasks yield better retention rates?', in harmony with Laufer and Hulstijn (2001) it was anticipated that productive tasks demanding deeper cognitive effort would culminate in better vocabulary acquisition; however, the results, contrary to the prediction which was made based on the Involvement Hypothesis, indicated that the best performance was obtained from the translational activities in the forward direction (L2 to L1), and the worst performance was observed among those in

the gap-filling task, though none of them turned out to be statistically significant. However, the findings invite us to re-consider its widespread and predominant use in lexical pedagogy.

In accordance with Schmidt's (1990, 2001) Noticing Hypothesis which states that, it is impossible to learn a foreign language through subliminal perception and input becomes intake when learners consciously notice what they learn, the FFI condition was adopted. Consistent with the assertion that "SLA researchers into task-based instruction are looking for ways to ensure that there is, within a task-based approach, sufficient focus on form" (Skehan, 2003a) (as cited in Zhao, 2011, p.53), in the current study, participants noticed target words initially within the text (FonF) and rehearsed them later by performing awareness-raising activities, i.e., translation, sentence production and gap-filling, i.e., (FonFs). In line with de la Fuente (2006), attention was drawn to the forms associated with the meanings by explicit focus on forms, and form-meaning connections were strengthened for later uses of the target words. While, all conditions were run identically, i.e., task-based treatment, incidental context of learning, FFI, keeping time on task constant, and taking test-task compatibility into account, it was not odd to find the participants' performance almost similar in all conditions on the posttests, especially the delayed ones. A possible interpretation of the fact that all the differences in the performance of the participants were leveled on the delayed posttest is that the added amount of retention as a result of translational activities is more sensitive to time passage factor and more vulnerable to attrition. In fact, the two-week time interval between the immediate and the delayed posttests might have exerted a deeper negative influence on the partial learning derived from the initially more efficient tasks.

On the whole, the finding of the present study dovetails with Keating's (2011) finding that word-focused tasks might be most beneficial, whereas, the participants in all task groups were able to retrieve considerable proportion of the target words because they profited from the enriched context of learning like those in de la Fuente (2006), Jahangard (2010a), Laufer and Girsai (2008) Shak and Gardner (2008) and Shintani (2011). On the basis of our finding, translation in both directions can be invited to EFL context as a pedagogical tool, since they were as effective as sentence production activities if not more, and learners were able to transfer their vocabulary knowledge which was parallel with Jahangard (2009).

6. Conclusion

The results of the current study indicate that Involvement Load Hypothesis has a long way to go before it fulfills its true potential. The components constituting the involvement index might need to be refined more thoroughly. Although dictionary type factor yielded no

significant difference on word retention, it is believed that its use can contribute substantially to vocabulary development. According to Laufer and Hulstijn (2001), searching activity would increase the difficulty of the task which results in more cognitive process. Consequently, both L1 and L2 information either obtained from a bilingual and monolingual learner's dictionaries or from bilingualized dictionaries in paper or electronic form makes a valuable contribution to reading comprehension and vocabulary retention, as well. According to Widdowson (2003) the use of translation in L2 teaching in general- and vocabulary teaching in particular- has been a controversial issue among many local EFL teachers and even dignitary scholars of the field (pp. 149-164). The findings of the existing study corroborate the idea that translation activities, for the high involvement they induce, maybe as high as productive tasks, can be invited to EFL context to promote vocabulary acquisition.

In the light of the findings, it is recommended that teachers administer tasks which entail more cognitive effort and consider the evaluation component crucial to word learning. Contingent with previous studies (Hulstijn & Laufer, 2001; Izumi, 2003; Jahangard, 2010c, Jahangard & Zare, 2011; Laufer, 2003; Webb, 2005), learners benefit from output oriented tasks such as sentence production and translational activities, thus one pedagogical implication of this study concerns the role of output. The results of the current study tend to support Swain's (1995, 2000) output hypothesis, which asserts that pushed output forces learners to produce L2 context through embedding new words in, will culminate in a better retention of target items. In line with Noticing Hypothesis, the results of the current study support Jahangard (2010a, 2010b), Keating (2008), Laufer (2005), and Laufer and Girsai (2008) who claim that word learning and retention are greater when a Form Focused Instruction is adopted in vocabulary instruction.

As a whole, it is worth using other tests such as recalling or production tests besides the multiple-choice tests in order to obtain more reliable findings and to let the researcher examine more properties of vocabulary in measuring the learners' retention of new words.

References

Allen, F. A. (1983). *Techniques in teaching vocabulary*. New York: Oxford University Press.

Atkinson, D. (1987). The mother tongue in the classroom: a neglected resource? *ELT Journal, 41*(4), 241-7.

Barcroft, J. (2004). Effects of sentence writing in L2 lexical acquisition. *Second Language Research, 20*, 303-34.

Bransford, J. D., Franks, J. J., Morris, C. D., & Stein, B. S. (1979). Some general constraints on learning and memory research. In L.S. Cermak & F. I. M. Craik (Eds.), *Levels of processing in human memory* (pp. 331-354). Hillsdale, NJ: Erlbaum.

Browne, C. (2003). *Vocabulary acquisition through reading, writing, and tasks: a comparison.* (Doctoral dissertation), Temple University.

Bruton, A. (2007). Vocabulary learning from dictionary referencing and language feedback in EFL translational writing. *Language Teaching Research, 11*(4), 413-431.

Coady, J., & Huckin, T. (Eds.). (1997). *Second language vocabulary acquisition. A rationale for pedagogy*. Cambridge: Cambridge University Press.

Cook, G. (2010). *Translation in English language teaching.* Oxford: Oxford University Press.

Craik, F. I. M., & Lockhart, R. S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior , 11*, 671-84.

De la Fuente, M. J. (2006). Classroom L2 vocabulary acquisition: investigating the role of pedagogical tasks and form-focused instruction. *Language Teaching Research, 10*(3), 263-295.

Doughty, C. & Williams, J. (1998). Issues and terminology. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 1–11). Cambridge: Cambridge University Press.

Ellis, R. (2001). Investigating form-focused instruction. *Language Learning, 51*, 1-46.

Gu, Y. (2003). Vocabulary learning in a second language: person, task, context and strategies. *TESL-EJ, 7*(2), 1-33.

Hulstijn, J. (1992). Retention of inferred and given word meanings: Experiments in incidental vocabulary learning. In P. J. L. Arnaud & H. Bejoint (Eds.) *Vocabulary and applied linguistics* (pp. 113-125). London: Macmillan.

Hulstijn, J. H. (2003). Incidental and intentional learning. In C. Doughty & M. H. Long (Eds.), *The handbook of second language research* (pp. 349-381). London: Blackwell.

Hulstijn, J. H., Hollander, M., & Greidanus, T. (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., & B. Laufer. (2001). Some empirical evidence for the Involvement Load Hypothesis in vocabulary acquisition. *Language Learning*, *51*, 539-58.

Hummel, K. M. (2010). Translation and short-term L2 vocabulary retention: Hindrance or help? *Language Teaching Research*, *14*(1), 61-74.

Hunt, A., & Belgar, D. (2005). A framework for developing EFL reading vocabulary. *Reading in a Foreign Language, 17*(1), 24.

Izumi, S. (2003). Comprehension and production processes in second language learning: In search of psycholinguistic rational of the output hypothesis. *Applied Linguistics*, *24*(2), 168-196.

Jahangard, A. (2009). *Explicit vocabulary instruction and Iranian high school learners' ability to transfer their acquired lexical knowledge into reading comprehension*. (Unpublished PhD dissertation), Isfahan University, Isfahan: Iran.

Jahangard, A. (2010a). Form-focused second language vocabulary learning as the predictor of EFL Achievement: A case for Translation in a Longitudinal Study. *The Modern Journal of Applied Linguistics (MJAL), 2*(1).

Jahangard, A. (2010b). Form-focused second language vocabulary as the predictor of third-grader EFL learners' achievement: A case for translation. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, *1*(4).

Jahangard, A. (2010c). An empirical investigation of the task-induced involvement load hypothesis: A case for intentional learning environment. *Biannual Journal of Language Teaching and Literature*, *11*(2), 7-22.

Jahangard, A., Moieenzadeh, A., & Tavakoli, M. (2010). Translation learning and learners' ability to transfer their lexical knowledge into L2 reading comprehension. *Journal of English Language Teaching and Learning*, *3*(8), 91-113.

Jahangard, A., & Zare, M. (2011). *An Empirical research on the task-induced involvement load hypothesis: a case for intentional learning*. (unpublished master's thesis). Sharif University of Technology, Tehran: Iran.

Jing, L. & Jianbin, H. (2009). An empirical study of the involvement load hypothesis in incidental vocabulary acquisition in EFL listening. *Polyglossia*, *16*, 1-11.

Keating, G. D. (2008). Task effectiveness and word learning in a second language: The involvement load hypothesis on trial. *Language Teaching Research 12*(3), 365-386.

Kim, Y. (2008). The role of task-induced involvement and learner proficiency in L2 vocabulary acquisition. *Language Learning, 58*(2), 285-325.

Laufer, B. (1990). 'Sequence' and 'order' in the development of L2 lexis. *Applied Linguistics 11*, 281-296.

Laufer, B. (2003). Vocabulary acquisition in a second language: Do learners really acquire most vocabulary by reading? Some empirical evidence. *Canadian Modern Language Review, 59*, 567–587.

Laufer, B. (2005). Focus on Form in second language acquisition. In S. H. Foster-Cohen, M. P. Garcia-Mayo, & J. Genoz (Eds.), *EUROSLA Yearbook, 5* (pp.223-250). Amsterdam: John Benjamins.

Laufer, B., & Girsai, N. (2008). Form-focused instruction in second language vocabulary learning: A case for contrastive analysis and translation. *Applied Linguistics*, 29(4), 694-716.

Laufer, B., & Hulstijn, J, (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics, 22*(1), 1-26.

Laufer, B. & Shmueli, K. (1997). Memorizing new words: Does teaching have anything to do with it? *RELC Journal, 28*, 89-108.

Lewis, M. (1997). *Implementing the lexical approach.* Hove: Language Teaching Publications.

Liu, J. (2008). L1 Use in L2 Vocabulary Learning: Facilitator or Barrier. *International Education Studies, 1*(2), 65-69.

Loewen, S. (2005). Incidental focus on form and second language learning. *SSLA, 27*, 361-386.

Long, M. (1991). Focus on form: A design feature in language teaching methodology. In K. de Bot, R. Ginsberg, & C. Kramsch (Eds.) *Foreign language research in cross-cultural perspective* (pp. 39–52). Amsterdam: Benjamins.

Long, M., & Robinson, P. (1998). Focus on form: Theory, research, and practice. In C. Doughty, & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 15-41). Cambridge: Cambridge University Press.

Losckhy L., Bley-Vroman R. (1993). Grammar and task-based methodology. In G. Crooks and S. Gass (Eds.), *Task and Language learning: Integrating theory and practice (pp. 123-167).* Clevedon, Avon: Multilingual Matters.

Lyster, R. (1998a). Recasts, repetition, and ambiguity in L2 classroom discourse. *Studies in Second Language Acquisition, 20*, 51-81.

Lyster, R. (1998b). Negotiation of form, recasts, and explicit correction in relation to error types and learner repair in immersion classrooms. *Language Learning, 48*, (p.183-218).

Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: negation of form in communicative classrooms. *Studies in Second Language Acquisition, 19*, 37-66.

Mackey, A., Polio, C., & McDonough, K. **(**2004). The relationship between experience, education and teachers' use of incidental focus-on-form techniques. *Language Teaching Research 8*(3), 301-27.

Nation, I. S. P. (1990). *Teaching and learning vocabulary.* New York: Newbury House.

Nation, P., & Carter, R. (Eds.). (1989). Vocabulary acquisition. *Aila Review-Revue De L'aila, 6.*

O'Malley, J. & Chamot, A. (1990). *Learning strategies in second language acquisition.* Cambridge: Cambridge University Press.

Paribakht, T. H., Wesche, M. (1999). Reading an incidental L2 vocabulary acquisition: An introspective study of lexical differencing. *Studies in Second Language Acquisition, 21*, 195-224.

Park, S. (2010). The influence of pretask instructions and pretask planning on focus on form during Korean EFL task-based interaction. *Language Teaching Research, 14*(1), 9-26.

Read, J. (2004). Research in teaching vocabulary. *Annual Review of Applied Linguistics, 24*, 146-161.

Richards, J. C. (1980). The role of vocabulary teaching. In K. Croft (Ed.), *Readings in English as a second language: For teachers and teacher trainers* (2nd ed., pp. 424-438). Cambridge, MA: Winthrop.

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11*(2), 129-158.

Schmidt, R. (1994a). Deconstructing consciousness in search of useful definitions for applied linguistics. In J. H. Hulstijn & R. Schmidt (Eds.), *Consciousness in Second Language Learning*. AILA Review, 11, 11-26.

Schmidt, R. (1994b). Implicit learning and the cognitive unconscious: of artificial grammars and SLA. In N. C. Ellis, (Ed.), *Implicit and explicit learning of languages* (pp. 165- 210). London: Academic Press.

Schmitt, N. (2000). *Vocabulary in Language Teaching.* Cambridge: Cambridge University Press.

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). Cambridge: Cambridge University Press.

Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research, 12*(3), 329-363

Shak, J., & Gardner, S. (2008). Young learner perspectives on four focus-on-form tasks. *Language Teaching Research, 12*(3), 387-408.

Shintani, N. (2011). A comparative study of the effects of input-based and production-based instruction on vocabulary acquisition by young EFL learners. *Language Teaching Research, 15*(2), 137-158.

Skehan, P. (1998). A *Cognitive approach to Language Learning*. Oxford: Oxford University Press.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer. (Eds.), *Principle and practice in applied linguistics* (pp. 125-144).

Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97–114). Oxford: Oxford University Press.

Webb, S. (2007). Learning word pairs and glossed sentences: The effects of a single context on vocabulary knowledge. *Language Teaching Research, 11*(1), 63-81.

Widdowson, H. G. (2003). *Defining issues in English language teaching* (pp. 148-164). Oxford: Oxford University Press.

Yaqubi, B., Rayati, R. A., & Allemzade Gorgi, N. (2010). The involvement load hypothesis and vocabulary learning: The effect of task types and involvement index on L2 vocabulary acquisition. *The Journal of Teaching Language Skills (JTLS), 2*(1), 145-163.

Zhao, H. How far do the theories of task-based learning succeed in combining communicative and from-focused approaches to l2 research? *Journal of Cambridge Studies, 6*(1), 41-56.