

The Effect of Input, Input-output and Output-input Modes of Teaching on Vocabulary Learning of Iranian EFL Learners

Ramin Fazeli ¹, Mohammad Sadegh Bagheri ²

- (1) Islamic Azad University, Qeshm International Branch,
Qeshm, Iran
- (2) Department of Foreign Languages, Islamic Azad
University, Shiraz Branch, Shiraz, Iran

Abstract. This study was designed to find which one of the three different presentations, i.e. input, input-output, and output-input, will be more effective in Iranian EFL learners' vocabulary acquisitions. To this end, first 54 out of 64 female students, aged from 19 to 23 years, with an average of 21, were selected out of starter-level EFL learners at the University of Tarbiat Moalem in Bandar Abbas, Iran. They were also in three classes of 17, 14, and 14 students. The research was done on three classes based on the book titled American English file (Starter). Tests used in this study contained 40 multiple-choice items of vocabularies related to chapters 1&2 of American English Series (Starter). Then, each class was treated based on one of the orders of teaching out of three. After treatment, the same vocabularies which were used in the pretest were given for posttest. Two analytical methods were applied, matched t-test and one-way ANOVA. The result revealed that the output-input group performed better than the input-output and the input-output performed better than input group. In other words, students in output-input group performed best in their post-tests.

Keywords: Input, output, vocabulary acquisition, vocabulary teaching

1. Introduction

Research on the roles of output gives a new perspective to target language output as an active agent in the process of language development, while it was considered merely language learning outcome. The process of language learning is not linear as the terms input and output indicates. The output hypothesis put forth by Swain (1985) draws attention to the role that output plays as a trigger for restructuring learner's interlanguage, for paying attention to input, and for processing input for syntactic information, to mention a few. As the review of the literature in the next section of this study reveals, there are many issues to be addressed in terms of the roles of output in language learning, yet not enough research has been conducted. Therefore, this paper specifically investigates the effects of peer-interaction on learning vocabulary productively and the cognitive processes during spoken output of the target words.

Many theories and hypotheses have been developed as to how a person acquires his/her first (L1) and second (L2) languages. L1 is a person's mother tongue whilst L2 is the language a person learns after acquiring L1. Krashen (1985) first described and explained the role of input in acquiring language. In addition to exposure to input and requirements for input to change into intake, equally important is the fact that teachers recognized the role of output in the process of effective second language acquisition for their greater interlanguage development.

The search for salient features of the utterances of second language learners paved the way to the introduction of the input/output theory in the 1985's which describes the manner in which learners attempted to reach the TL vocabulary acquisition which is important across all languages.

First, Swain (1985) examined French immersion students' language ability from many aspects and discovered that some aspects of these students' linguistic ability, i.e., grammatical and sociolinguistic traits, were significantly different from native speakers' after seven years of

receiving comprehensible input. She proposed that input alone is not sufficient for language acquisition at native speaker level. She argued that what is missing is comprehensible output where learners are pushed into producing more comprehensible and accurate language. Thus, she posited the output hypothesis, which stated "comprehensible output is a necessary mechanism of acquisition independent of the role of comprehensible input" (p.252).

In developing this hypothesis, Swain (1995) discussed three functions of output, i.e. noticing, hypothesis-testing, and metalinguistic functions. It seems that there are still other functions of output in language learning but they have not been systematically identified or studied. Most of the studies that have been conducted on the roles of output looked at preliminary aspects of output (e.g., Pica, Holliday, Lewis, & Morgenthaler, 1989; Swain & Lapkin, 1995), and only a few looked at the aspect of acquisition (e.g., Izumi, Bigelow, Fearnow, & Fujiwara, 1999). The roles of output in SLA are only starting to be investigated. In addition, when it comes to how production of target language helps second language vocabulary learning, little is known.

By considering the results from the studies mentioned before or those which are mentioned in review of literature section, two important conclusions can be drawn: 1) the development from receptive to productive vocabulary does not occur naturally in L2 acquisition, and thus, different instructional conditions are needed in order to convert receptive into productive vocabulary, and 2) effective instruction for productive vocabulary acquisition necessarily involves an output task condition. Accordingly, these conclusions can suggest several questions: What specific functions of output can play a role in developing second language vocabulary? What conditions should be provided for learners if they want to maximize those functions of output? What learning conditions would be the ideal design to increase L2 learners' output in terms of productive vocabulary acquisition? While previous studies have shown that output plays an important role in L2 vocabulary acquisition, few studies have addressed in which aspects L2 learners benefit from production of output, and which learning conditions may be superior for increasing learners' output in written vocabulary acquisition. Therefore, there are two important purposes behind this study: 1) to seek an

explanation of which of modes input, input-output, output-input positively affect L2 learners' vocabulary acquisition, and 2) to investigate which learning conditions are most effective in L2 vocabulary acquisition. These two general goals are translated into the following research questions:

1. Is there any significant difference in vocabulary learning of Iranian EFL students when they are instructed by input plus output instruction and input-only instruction?
2. Is there any significant difference in vocabulary learning of the students when they are taught in the output-input condition and input-only mode condition?
3. Is there any significant difference in vocabulary learning of the students when they are taught through the output plus input and the input-output?

The effects of three modes of presentation on EFL vocabulary acquisition were surveyed and compared in this study in order to find out if they affect Iranian EFL learners' vocabulary acquisition, and which of them would affect their acquisition most.

The null hypotheses are as follows:

- 1) There is no significant difference in vocabulary learning whether teaching mode is input-output-based or it is just input-based mode;
- 2) There is no significant difference in vocabulary learning whether teaching mode is output- input-based or it is just input-based mode;
- 3) There is no significant difference in vocabulary learning whether teaching mode is input-output based or it is output- input-based.

2. Literature Review

A number of recent studies have addressed the productive aspects of L2 vocabulary knowledge. Focusing on the functions of input and output, these studies attempted to explain how input and output affect vocabulary acquisition.

One study which investigated L2 productive vocabulary acquisition was a study conducted by Ellis & He (1999). This study was the first empirical investigation to document the benefits of output on acquisition of receptive and productive vocabulary in L2. In order to compare the effects of input and output treatments on oral acquisition of L2 target words related to furniture, the scores of five posttests were compared. In addition to the input and output variables, the interaction between learners or between learners and a teacher was added as another variable for the experiment. Thus, there were three experimental groups: a) the pre-modified input group, which received the input treatment without interaction, b) the modified input group, which received the input treatment with interaction, and c) the modified output group, which received the output and input treatments with interaction.

The results indicated that there were no differences between the two input groups and that the output with interaction group performed significantly better in the acquisition of target items than the other groups. Ellis and He (1999) interpreted these results as suggesting that the interaction between output and dialogic interaction could be a beneficial factor for learners to acquire productive as well as receptive vocabulary knowledge.

Similarly, de la Fuente (2002) conducted an experiment to examine different roles of negotiation prompted by output on the receptive and productive acquisition of words. The study yielded similar findings to those of Ellis and He (1999): only negotiated interaction that incorporated output appeared to have promoted both receptive and productive acquisition of words, as well as an increase in productive word retention. With this result, de la Fuente (2002) argued for the importance of output for productive acquisition within negotiation processes.

While these two studies were concerned with whether the output treatment was more advantageous for target word acquisition as opposed to the input treatment, a study by Lee (2003) examined the effects of different instructional techniques on improving productive vocabulary use. Lee (2003) investigated vocabulary use in the writing of secondary ESL learners in Canada in search of empirical evidence supporting a

relationship between explicit vocabulary teaching and improvement in the lexical quality of writing.

Vocabulary instruction, by means of various learning strategies including reading, writing, and comprehension of target vocabulary and target language learning within grammar exercises, significantly increased the productivity of the target vocabulary. Lee (2003) proposed that systematic vocabulary instruction could help to convert receptive vocabulary into productive vocabulary.

An experimental study by Van Gelderen, Snellings and De Gloppe (2004) was also concerned with L2 learner's productive lexical knowledge and its relationship to writing. In their research with Dutch secondary school students learning English as an L2, participants showed a significant enhancement in their speed of lexical retrieval as a result of training. They also argued that this enhanced lexical retrieval was transferred to narrative writing since students in the experimental groups used the trained words more often in their narrative texts and showed significant improvement in their expression of content. Similar results were also found by Schoonen and Verhallen (1998), who found that lexical retrieval and sentence-building training was correlated with participants' increased use of target words in their writing. This result supports the claim that production practice plays an influential role in enhancing learners' productive use of L2 vocabulary.

3. Method

3.1. Participants

The participants of this study were selected from an extra-curricular program at the University of Tarbiat Moalem in Bandar Abbas. 64 female EFL learners of starter-level participated in this study. The criterion for considering the students as starter was based on their scores on the placement test used at the language center, Arian Institute. Those who had been absent for three sessions and could not complete the related tasks were eliminated from the study. Based on the above-mentioned criteria, 54 Students were chosen as the participants for data collection. To avoid any type of bias, the researchers did not delegate participants to a particular group in advance. They were three

experimental groups in the study (group A: the input group, group B: the input-output group, group C: the output-input group). A control group was deemed unnecessary because the researchers tried to test the order of teachings based on 3 groups and compare the gain of learners in different groups. The age of the students ranged from 19 to 23 years, with an average of 21.

3.2. Procedure

Three groups of the study took a pretest which contained 40 multiple choice items of vocabularies related to lessons 1&2 of American English Series (Starter) with the reliability value of .781 computed by Cronbach's Alpha and predetermined accepted validity.

The treatment provided to the input group was a non-reciprocal task. The input-output group was taught by reciprocal tasks. A reciprocal task was a two-way flow of information between a speaker and a listener. The direction of the flow in the first phase of teaching started from the teacher toward the learners, and then, in the second phase, the direction changed from the learners to the teachers. Although, the tasks for output-input group like the input-output group were reciprocal, the direction of the flow was different. The first phase in output-input group started from the learners toward the teacher and the second phase was a flow of information from the teacher to the learners. In what follows, a clear understanding of what each group was involved in is offered.

3.2.1. Group A

As mentioned before group A was input group. In this group the teacher taught lessons 1&2 through a non-reciprocal method (only input). Typographical features of written input were manipulated (such as underlining on the book, bolding on the board, using colorful markers or capitalizing on the board) in order to enhance the perceptual salience of linguistic features. In this technique, learners paid more attention to the enhanced forms as they processed input for meaning. Because the forms were visually enhanced for them, sometimes, elaborating on input made the meaning of vocabularies clear. Then, learners delved into the examples or input flooding. This technique exposed learners to instances of some target words. In this technique, the main hypothesis was that

the very high frequency of the structure in question would attract the learner's attention. The following paragraph makes it crystal clear.

The lessons of the book consisted of 4 parts. Part A was listening; learners were divided into different groups to be engaged in group work activities. Then, new vocabularies related to listening part were highlighted by writing on the board with definitions and examples. After that, the CD player was turned on for them. At last, the learners were asked if they needed to listen to the CD again. If they had a problem, they were given more opportunities to understand the vocabularies and their meanings. And if they had a problem again, the teacher joined the groups and made it clear for students. The teacher didn't ask any questions related to new vocabularies which might cause any production or output.

3.2.2. Group B

Method B was input-output. This method was conducted in 2 phases: the first was input, i.e. exposing the learners to the words or input. The second phase was output, i.e. production. It was taken as a measure to push the learners from the input to output to engage in verbal production. During the second phase, learners from this group gave lectures and wrote a summary of the listening after they had received input. So, first they received definitions of new vocabularies related to the listening topic and then the CD player was played. After listening, learners were asked to explain the listening. A learner started to explain the listening and if the learners felt a problem in the explanation of the volunteer learner they helped her and corrected her. At last, if they could not understand a word, the teacher helped them.

3.2.3. Group C

Method C was output -input method. This group like group B learned in two phases. The First phase was output and the second phase was input. The tasks in this group were more complicated for learners, because the first minutes of the class were allotted to output rather than input, and learners didn't have any information about the topic of the lesson. As mentioned before, in group B, like a computer, learners received information, then they processed the data, and at last, they answered

the questions and made production. But, in group C, first, learners were asked to make production about the topic of the lesson.

In method C, learners were divided into groups and then the title of the listening part was written on the board. Then, each group was asked to write a paragraph about the title and picture of the book or explain about that. At the first phase, learners were observed while explaining or writing about topic without any pre-explanation. By production, learners felt that they didn't know specific words in English language and started to ask each other to solve the problem. Whenever the teacher felt that learners could not handle the task and needed help, the teacher took part in their conversation. The second phase of teaching started to work, and by giving elaborated input, they tried to solve the problems and actually filled the gaps in learners' minds. After ten sessions of treatment, the teacher gave the learners a posttest. To this end, vocabularies which were used in the pretest were given for posttest.

3.3. Data analysis

Data analysis was conducted through SPSS 19. Two analytical procedures were applied, one-way ANOVA and a matched *t*-test. In matched *t*-test, there was one group of participants tested twice. In other words, for each student in the group there were two scores. Due to the fact that each student had a pre-test and a post-test, matched *t*-test was used to see if the difference between the means of the two sets of scores is statistically significant or not. Moreover, after calculating matched *t*-test, the effect size was calculated to show how great the effect of each presentation was. Another analytical procedure used in the study was one-way ANOVA. To do one-way ANOVA, there were two variables, a dependent variable (vocabulary learning) which was the target variable to be compared, and an independent variable (the modes of teaching) which was the grouping variable that had as many values as the number of groups to to be compared (Dorneyi, 2007). Furthermore, the researcher did two one-way ANOVAs, one for the pre- test and the other one for the post-test of the three groups. Then, the Post hoc analysis was done to have two by two comparisons subsequently. In the Post hoc, the Scheffe test was used too.

4. Results

In this study, there were three groups, the students of which were tested twice. In other words, there were pre-tests and post-tests for each student in each group. Therefore, the matched t -test was calculated for each group in order to see if the difference between the means of the two sets of the scores was statistically significant or not. The researcher calculated the effect size to know how big the difference between the means was. To find out the effect size of the means, the researcher calculated the square of t value divided by the square of the t value plus df . If Eta squared equals .01, it represents a small effect; if Eta squared equals .06, it shows moderate effect; and if it is greater than .14, it represents a large effect.

4.1. The input group

The means of pre-tests and post-tests for each group were compared by matched t -test in isolation in input group.

Table 1. Matched t -test of pre-test and post-test on the input group

		Paired Differences			t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std.Error Mean			
Pair 1	Input-Pre, Input-Post	-1.79412	1.92888	.46782	-3.835	16	.001

As the Matched t -test of pre-test and post-test on the input group shows, the significance given by the computer is .001, which is smaller than .05. Therefore, the null hypothesis is rejected at both levels of significance. In other words, the treatment which was the input presentation had an effect on the student s' vocabulary acquisition. Besides, the effect size was calculated and it was .47, which was greater than .14. Therefore, it was concluded that the effect of input presentation was large on vocabulary acquisition. The mean difference of both pre-tests and post-tests on vocabulary acquisition in the input group is (-1.79412). So, it is concluded that the mean of post-test is higher than that of pre-test which informs us that students did a better job at their post-test.

4.2. The input-output group

The matched t -test of pre-test and post-test in the input-output group was also calculated. As mentioned before, if the significance level is smaller than .05 the null hypothesis will be rejected.

Table 2. the Matched t -test of pre-test and post-test in the input-output group

		Paired Differences			t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std.Error Mean			
Pair 2	Input-Output Pre, Input-Output Post	-4.25000	1.60228	.42823	-9.925	13	.000

By looking at the significance level in table 2, it is concluded that the significance level is smaller than .05. Therefore, the null hypothesis is rejected, which means that the treatment had an effect. Besides, the difference between the means in table 2 represents the effect of input-output method on learner's vocabulary acquisition. Moreover, the calculated effect size by the Eta squared formula was .88, which meant that the effect was very large. By looking at the mean difference of both pre-tests and post-tests in table 2, it is concluded that the mean of post-test in the input-output group is larger than the mean of pre-tests. In other words, students performed better at their post-test and the treatment had effects on students' vocabulary acquisition.

4.3. The output-input group

The third group was the output-input group. Pre-tests and post-tests of each student were compared by the calculation of matched t -test.

Table 3. The Matched t -test of pre-test and post-test in the output - input group

		Paired Differences			t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std.Error Mean			
Pair 3	Output-Input-Pre, Output-Input-Post	-4.21429	1.34041	.35824	-11.764	13	.000

The significance level is .000 based on the table 3, which is smaller than .05. Therefore, the null hypothesis is rejected in this case, too. As it is shown in the table 3, the difference between the means of pre-test and post-test is negative, so the mean of post-test is greater than the mean of pre-test, which informs us that the treatment i.e., output-input did have effects on EFL learner's vocabulary acquisition. Moreover, the effect size was .91, which represented the large effect of output-input presentation on vocabulary acquisition.

4.4. One-way ANOVA

In statistical analysis, one should apply one-way ANOVA if the independent variable has more than two levels. In this study, the independent variable had three levels. Three levels were three groups called input, input-output, and output-input. Therefore, one-way ANOVA was applied for the analysis of variance. The researcher calculated two one-way ANOVAs, one for pre-test and another for the post-test. After calculating one-way ANOVA, the Post hoc analysis was applied in order to have two by two comparisons. For the purpose of analyzing ost hoc, the Scheffe test was calculated.

Table 4. One-way ANOVA for pre-test

Pretest	Sum of Squares	df	Mean square	F	Sig.
Between Groups	5.274	2	2.637	.638	.534
Within Groups	173.704	42	4.136		
Total	178.978	44			

As table 4 represents, the significance level is .534, which is greater than .05. Therefore, the difference between pre-tests is not significant.

Table 5. One-way ANOVA for post-test

Posttest	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	40.457	2	20.228	8.408	.001
Within Groups	101.043	42	2.406		
Total	141.500	44			

In table 5, the significance level is .001, which is less than .05. Therefore, the difference between the post-tests of groups is significant. In other

words, it is concluded that the effects of three modes of presentation differ in classes, since the difference between the three groups is significant. Besides, the post hoc was calculated to see which group had a higher gain.

4.5. Multiple Comparisons

In Table 6, the mean difference between input and input-output is negative, which means that the mean in input-output group is greater than the mean in input group. Therefore, the input-output group affected learner's vocabulary learning more.

Table 6. Post hoc table for post-tests

(I) Methods	(J) Methods	Mean Difference (I-J)	Std. Error	Sig.
Input	Input-output	-1.63866	.55978	.020
	Output-input	-2.17437	.55978	.002
Input-output	Input	1.63866	.55978	.020
	Output-input	-.53571	.58625	.661
Output-input	Input	2.17437	.55978	.002
	Input-output	.53571	.58625	.661

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

Moreover, by looking at the mean difference between input-output and output-input, the researcher drew the conclusion that the mean difference was also negative; as a result, the output-input group performed better than the input-output group.

5. Discussion

In this paper the result of one-way ANOVA showed that output-input group had the greatest effects on EFL learners' vocabulary acquisition in comparison to input and input-output. On the other hand, some researchers did studies based on the effect of input and output on vocabulary learning. In the following paragraphs, the results of the studies done by other researchers and the results of this study are compared and discussed.

Many researchers and theories have conducted research regarding input. Input has played a significant role as one of the important theoretical

constructs in SLA (Gass, 1997; Long, 1996). They even claimed that input made comprehensible to L2 learners (i.e., comprehensible input) is the only causative variable in SLA. Several aspects of input have been investigated in the SLA literature: Comprehensible input (Krashen, 1985), incomprehensible input (White, 1987), and comprehended input (Gass, 1988), evidencing the importance of input comprehension (or comprehensibility) in SLA.

In case of vocabulary acquisition, Urano's study (2000) reported that there was a significant difference between lexical elaboration and lexical simplification in scores on a form-recognition and meaning-recognition test. Some other studies have shown that there was no significant difference in L2 vocabulary acquisition between reading elaborated and unmodified text (Chung, 1995; Kim, 1996; Silva, 2000) and between reading elaborated and simplified text (Chung, 1995). Chung (1995) stated that improving comprehension by way of elaboration leads to L2 vocabulary acquisition.

All the above researchers found out that input helped learning, in particular, vocabulary learning. Furthermore, they believed that through input elaboration and enhancement method, learners could acquire vocabularies.

In this study, the result of input paired *t*-test showed that input was statistically significant. So, the result of this study implied that input was as effective as other researchers found in vocabulary acquisition. Similarly, in this study, the researcher found out that input, in comparison to input-output and output-input, did not have any significant effects on EFL students' vocabulary acquisition.

Using input-output in vocabulary acquisition, Ellis and He (1999) surveyed the benefits of output production (L2 vocabulary) on acquisition of such vocabulary. The study investigated the effects of premodified input, interactionally modified input, and modified output on the receptive and productive acquisition of L2 words. They found that the modified output group achieved higher levels of acquisition of words (both receptive and productive) than any of the other groups. They also found no significant differences between the premodified and

the interactionally modified input groups. The study, however, contradicted the results of Ellis, Tanaka, and Yamazaki (1994), by finding that negotiated interactions in which learners did not produce output led to the same levels of vocabulary acquisition than no negotiated, premodified input.

De la Fuente (2002) tested comprehension and acquisition of new vocabulary in relation to three condition types: *non-negotiated premodified input*, *negotiated input without output*, and *negotiated input plus output*. The subjects were 32 native speakers of English studying Spanish at Georgetown University. The results of this study show that the *negotiated input without output* and *negotiated input plus output* groups attained higher levels of comprehension. This finding supports the findings of Loschky (1994) and Ellis, et al. (1994) but contradicts Ellis and He's (1999).

In regard with subsequent recognition of L2 words, De la Fuentes' finding that there was no significant difference between the input groups (*non-negotiated premodified input* and *negotiated input without output*) supported Loschky (1994), and Ellis and He's (1999), but contradicted Ellis, et al's. (1994). However, de la Fuente found that with regard to word recognition, there was no significant difference between the negotiation groups (*negotiated input without output* and *negotiated input plus output*). This finding does not support Ellis and He's (1999), who found the modified output group was superior to the interactionally modified group. As far as word production is concerned, de la Fuente's findings support those of Ellis and He; that is, the difference between the input groups (*non-negotiated premodified input* and *negotiated Input without output*) was not significant. Additionally, she found that the difference between the negotiation groups (*negotiated input without output* and *negotiated input plus output*) was significant. This finding is in-line with that of Ellis and He (1999), whose results showed that the modified output group was far superior to the interaction group.

The result of this study also represented the remarkable effects of input-output on vocabulary acquisition. The result showed that input-output group achieved higher levels which were the same as the result of Ellis and He (1999); however, this finding does not support Ellis (1994),

Loschky (1994) and De la Fuente's (2002). Furthermore, the researchers found that there was no significant difference between the input-output and output-input group, and the mean difference between input-output and output-input group showed that input-output group achieved higher level of performance on vocabulary acquisition. So, the outperformed groups are input-output and then output-input.

6. Conclusions

In this study three research questions and three null hypotheses were stated. The three research questions were: 1) Is there any significant difference in vocabulary learning of Iranian EFL students when they are instructed by input plus output instruction and input-only instruction? 2) Is there any significant difference in vocabulary learning of the students when they are taught through the output plus input and input-only mode? 3) Is there any significant difference in vocabulary learning of the students when they are taught in the output-input condition and the input-output condition?

The three null hypotheses were: 1) There is no significant difference in vocabulary learning whether teaching mode is input-output-based or it is just input-based mode; 2) There is no significant difference in vocabulary learning whether teaching mode is output- input-based or it is just input-based mode; 3) There is no significant difference in vocabulary learning whether teaching mode is input-output based or it is output-input-based.

6.1. Answers to the research questions and the null hypotheses

As mentioned in previous part each question is answered separately below based on the results of the data analyses. Moreover, each null hypothesis is surveyed in each question.

6.1.1. Is there any significant difference in vocabulary learning of the students when they are instructed by input plus output instruction and input-only instruction?

As presented in the results of this paper, in both matched *t*-test and one-way ANOVA, the significance level was smaller than .05. Therefore, the mean difference of each subject was significant. The first null hypothesis

is that there is no significant difference in vocabulary learning whether teaching mode is input-output-based or it is just input-based mode which was rejected. In other words, the group of input-output outperformed input-only group. Then, the effect size was calculated in matched *t*-test for each group; the effect size of input group was .47 and the effect size of input-output was .88. Both group's effect sizes were greater than .14. So, the effect of both groups on the vocabulary acquisition was acceptable. But, comparing two groups, the effect of input-output group is greater than the effect size of input group. The same result was gained by post hoc. According to table 6, the result of mean differences was negative which showed that input-output outperformed the Input group.

6.1.2. Is there any significant difference in vocabulary learning of the students when they are taught through the output plus input and input-only mode?

The significant level shown in both matched *t*-test and one-way ANOVA became smaller than .05. Therefore, the second null hypothesis was rejected. In other words, the group of output-input outperformed input-only. The average of the calculated effect size for output-input group was .91 and the effect size of input group was .47, which shows a great effect of both output-input and input groups on vocabulary acquisition. Besides, the effect size of output-input group is greater than the effect size of Input group. As post hoc did in this study, the same result was obtained, the mean difference of Input and output-input was negative which showed that output-input outperformed the input group.

6.1.3. Is there any significant difference in vocabulary learning of the students when they are instructed by input plus output instruction and input plus output instruction?

The results of the two methods, matched *t*-test and one-way ANOVA, represented that the third null hypothesis is rejected. The average of the calculated effect size for Output-Input group was .91 and the effect size of input-output was .88. Both groups' effect sizes were greater than .14. So, the effect of both groups on the vocabulary acquisition was acceptable. But, comparing two groups, the effect of Output-input group was greater than the effect size of input-output group. The same result was gained by post hoc. In comparing input-output group and output-input group, the mean difference was negative; it showed that the mean of output-input group was greater than input-output group. As a result, output-input outperformed the other groups in this study.

References

- [1] Chung, H. (1995). *Effects of elaborative modification on second language reading comprehension and incidental vocabulary learning*. Unpublished master's thesis, University of Hawai'i at Manoa, USA.
- [2] De la Fuente, M. J. (2002). Negotiation and oral acquisition of L2 vocabulary: the roles of input and output in the receptive and productive acquisition of words. *Studies in Second Language Acquisition*, 24, 81-112.
- [3] Dornyei, Z. (2007). *Research methods in applied linguistics*, Oxford: Oxford University Press.
- [4] Ellis, R. (1994). A theory of instructed second language acquisition. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 79-114). San Diego, CA: Academic Press.
- [5] Ellis, R., & He, X. (1999). The roles of modified input and output in the incidental acquisition of word meanings, *Studies in Second Language Acquisition*, 21, 285-301.
- [6] Ellis, R., Tanaka, Y., & Yamazaki, A. (1994). Classroom interaction, comprehension, and the acquisition of L2 word meanings. *Language Learning*, 44, 449-491.
- [7] Gass, S. (1997). *Input, interaction, and the second language learner*. Mahwah, NJ: Erlbaum.
- [8] Gass, S. M. (1988). Integrating research areas: A framework for second language studies. *Applied Linguistics*, 9, 198-217.
- [9] Izumi, S., Bigelow, M., Fujiwara, M., & Fearnow, S. (1999). Testing the output hypothesis: Effects of output on noticing and second language acquisition. *Studies in Second Language Acquisition*, 21, 421-52.
- [10] Kim, Y. (1996). *Effects of text elaboration on intentional and incidental foreign language vocabulary learning*. Unpublished master's thesis, University of Hawai'i at Manoa, USA.
- [11] Krashen, S. D. (1981). *Second language acquisition and language learning*. Oxford: Pergamon.

- [12] Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. New York: Longman.
- [13] Lee, S. (2003). ESL learners' vocabulary use in writing and the effects of explicit vocabulary instruction. *System*, 31, 537-561.
- [14] Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-468). San Diego, CA: Academic Press.
- [15] Loschky, L. (1994). Comprehensible input and second language acquisition: What is the relationship? *Studies in Second Language Acquisition*, 16, 303-323.
- [16] Pica, T., Holliday, L., Lewis, N., & Morgenthaler, L. (1989). Comprehensible output as an outcome of linguistic demands on the learner. *Studies in Second Language Acquisition*, 11, 63-90.
- [17] Schoonen, R., & Verhallen, M. (1998). Lexical knowledge in L2 and L2 of third and fifth graders. *Applied Linguistics*, 19, 452-270.
- [18] Silva, A. D. (2000). *Text elaboration and vocabulary learning*. Unpublished master's thesis, University of Hawai'i at Manoa, USA.
- [19] Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics*, 16, 371-391.
- [20] Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development In S. Gass & C. Madden (Eds.), *Input in Second Language Acquisition*. Rowley, MA: Newbury House.
- [21] Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidhofer (Eds.), *Principles and Practice in the Study of Language*. Oxford: Oxford University Press, 125-144.
- [22] Urano, K. (2000). *Lexical simplification and elaboration: on sentence comprehension and incidental vocabulary acquisition*. Unpublished master's thesis, University of Hawai'i at Manoa.

- [23] Van Gelderen, A., Snellings, P., & De Glopper, K. (2004). The effect of enhanced lexical retrieval on second language writing: A classroom experiment. *Applied Psycholinguistics*, 25, 175-200.
- [24] White, L. (1987). Against comprehensible input: The input hypothesis and the development of L2 competence. *Applied linguistics*, 8, 95-110.