Islamic Azad University
Shahreza Branch

Journal of LCT Language, Culture & Translation

JOURNAL OF LANGUAGE, CULTURE, AND TRANSLATION
www.lct.iaush.ac.ir

Journal of Language, Culture, and Translation (LCT), 3(1) (2015), 33–52

The Effect of Output on Subsequent Input in EFL Contexts

Mina Kazemzadeh[*1], Saeed Taki [2]

[1]*Lecturer, English Department, Sheikhbahaee University, Isfahan, Iran*
[2]*Associate Professor, English Department, Shahreza Branch, Islamic Azad University, Shahreza, Iran*

DOI: 10.30495/LCT.2015.692312

Received: 29/10/2014 ***Accepted: 14/02/2015***

Abstract

This study sought to investigate the effect of output processing on subsequent input processing. To this end, a recall task was used to measure the effect of output on subsequent input processing. The participants were selected from learners of English as a foreign language (EFL). They were homogeneous in terms of their language proficiency. The participants were assigned to two treatment groups: one output and one non-output. The output group went through three phases beginning with writing a story in English based on four cartoon pictures. Then, they read a model story describing these cartoon pictures. Finally, they were asked to recall the story in as much detail as possible. While the non-output group went through only the last two steps (input and recall). The results showed that when the participants produced the output and then received the input, they could recall the subsequent input better.

Keywords: Output processing; Input processing; Recall; EFL learning

1. Introduction

Over the past thirty years, a plethora of research into the process of foreign language acquisition has attended to the role of input and the conditions in which input might contribute to the language learning process (e.g., Ellis, 1981; Ellis & Wells, 1980; Faerch & Kasper, 1986; Gass &

* Corresponding Author's E-mail address: minakazemzadeh@yahoo.com

Madden, 1985; Krashen, 1980, 1985; Loschky, 1994; Sharwood Smith, 1993; White, 1987). Pioneering the issue, Krashen (1985) asserts that comprehensible input is the only crucial requirement in the process of second language learning.

Few research studies, however, have attended to the role of output in facilitating language acquisition. Recently interest has shifted toward the role of output in second language acquisition (Keck, Iberri-Shea, Tracey-Ventura, & Wa-Mbaleka, 2006; Muranoi, 2007; Swain, 2005). The starting point to perceive the role of output in acquiring a second language was Swain's (1985) seminal paper. Indeed, investigating language immersion programs provided evidence that input alone is not sufficient to achieve high levels of proficiency in second language leaning. This, however, does not entail that the role of input has diminished. Swain (1985) argues that both output and input are the main elements necessary to foster second language acquisition. She introduced the Output Hypothesis and indicated that learners may not achieve higher levels of proficiency unless, besides receiving input, they are pushed to produce output. According to Swain (1985), input can be comprehended without considering the syntax, but for output the case is different. There, one needs to take syntax into consideration, too. Accordingly, language production includes syntactic utilization as well as semantic utilization occurring in comprehension. In other words, when producing language, learners are forced to apply syntactic structures to what they express. These concerns made Swain (1995) conceive the important role of output in developing language learners' syntax and morphology.

Swain (1995, 1998, & 2005) proposed four different functions that output might perform in SLA: (1) noticing/triggering/consciousness raising, (2) hypothesis-testing, (3) metalinguistic/ reflective, and (4) fluency/automaticity. The noticing function of output holds that when learners attempt to produce the language, they are more likely to notice the gaps between their own production and the target language. This awareness will help learners acquire the knowledge that is not in their interlanguage. Moreover, when learners cannot express their intended meaning, they may seek a solution to the problem by hypothesizing about language through relying on their prior knowledge. In fact, in hypothesis formation and testing, output is a means of testing learners' hypotheses about language (Mackey, 2000). When producing output, learners not only disclose their hypotheses but also consciously reflect on their target language use and this conscious reflection enables them to control and internalize linguistic knowledge (Swain, 1997). According to the last function of Output

Hypothesis, when language learners practice a lot in producing syntactically accurate utterances, they eventually reach a point in the process of language acquisition where they can use language without awareness or attention as it has become routinized and automatized (Gass, 2003).

Recently, two lines of research have emerged in the studies of output in foreign language acquisition. One line of research has been influenced by Vygotsky's (1978) sociocultural theory that has added a social dimension to the study of output. These studies assert that output is not only a cognitive tool but also a message to be conveyed. In other words, language learners should speak to each other in order to convey their intentions (e.g., Kim, 2008; Nabei, 1996; Nassaji & Tian, 2010; Storch, 2005, 2007). The other line of research has compared the relative effects of output and input on learning a particular feature of language and specifically examined the effect of output on subsequent input (Abadikhah, 2012; Hanaoka, 2007; Izumi, 2002; Izumi & Bigelow, 2000; Izumi, Bigelow, Fujiwara & Fearnow, 1999; Qi & Lapkin, 2001; Song & Suh, 2008). Studies done by Izumi (2002), Izumi and Bigelow (2000) and Izumi et al. (1999) revealed that output group outperforms the non-output one in learning of targeted features. Nagata's (1998) study on the relative effectiveness of comprehension and production practice in the acquisition of Japanese honorifics also showed that the output group performs significantly better than the input group in both production and comprehension of Japanese honorifics. Qi and Lapkin (2001) and Hanaoka (2007) found that output draws learners' attention to the problematic features of their interlanguage knowledge, prompts them to look for the solutions in the pertinent input, and leads them to try to apply them in their final output.

Furthermore, Suzuki, Itagaki, Takagi and Watanabe (2009) suggest that "the psycholinguistics processes involved in output may help learners to process new relevant information during subsequent input processing" (p. 2). In other words, output-first sequence helps learners internalize what they need to know in order to overcome their interlanguage problems during subsequent input processing" (p. 2). In other words, output-first sequence helps learners internalize what they need to know in order to overcome their interlanguage problems during follow-up input and this input, in turn, strengthens learners' knowledge of language through confirmation or rejection of their information about lexical and grammatical features of language (Gass, 1997).

Along the same line, the present study was conducted in order to probe the role of output in foreign language acquisition and specifically its effect

on subsequent input processing. In fact, the researchers intended to investigate how output could be fronted and used in acquisition of lexical items and grammatical structures. In this study, an attempt was made to reverse the direction of classroom instructional sequence, that is, to start from output rather than input.

2. Literature Review

Gass, Svetics and Lemelin (2003) found that different parts of the language, namely, lexicon, morphosyntax and syntax, require different qualities of focused attention based on the level of abstractness, complexity and L1-L2 differences. They concluded that for vocabulary acquisition less attentional resources are required. Gass and Alvarez Torres (2005) made a similar observation. The results of their study demonstrated that there was a big improvement in learners' lexical domain from pretest to posttest. They concluded that vocabulary is an aspect of language that is 'concrete' and 'noncomplex', and as a result requires less focused attention on the part of the learners to be acquired and stored. VanPatten (1994, 2007) and Schmidt (1995, 2001) also give the impression that different areas of language need more or less focused attention to be processed. Williams (1999) came to the conclusion that language learners mostly attend to the lexical meaning of language, especially when they stand at low proficiency level. That is, learners at low proficiency level pay little attention to form and mostly focus on meaning. Similarly, Hamaoka's (2007) study showed that during the first output, lexical problems were mostly noticed by learners and they searched the subsequent input in order to counteract these problems. According to VanPatten's (1996) Input Processing theory, since the capacity of working memory is limited, it is difficult for learners to attend to different features in the input simultaneously. Thus, they attend to various parts of the input on the basis of certain principles. Learners, for example, attend to meaning, content words and lexical items in the input before they attend to form and grammatical items. In other words, learners will not process the form unless they are able to process the meaning content of the input with little attention (Ellis, 2008).

Moreover, in most of the studies mentioned above, think-aloud and note-taking were used as the measures to assess the cognitive processes such as noticing or intake. However, as Ericsson and Simon (1993) put it, the validity of such measures (think-aloud and note-taking) should be reappraised. To them, think-aloud and note-taking procedures per se may influence the noticing of the foreign language features. This means that some of the positive effects of output on L2 acquisition in these studies may have been due to the think-aloud and note-taking procedures which were

employed in them. The participants may not have noticed the targeted features if these procedures were not applied. Also, Gass (1997), in his L2 acquisition model, believes that note-taking procedure utilized in most of these studies "may not be a sensitive enough measure to capture cognitive processes such as noticing or intake" (Suzuki et al., 2009, p. 3). In the present study, the researchers attempted to explore the use of free recall task in order to measure the effect of output processing on subsequent input processing. Anderson (2005) gives credit to the validity of the free-recall tasks, among other elicitation methods, for measuring different cognitive processes within information processing model. However, Suzuki et al. (2009) give the impression that recall performance just shows that the selected information is attended to and processed in the working memory, i.e. it does not mean language acquisition. Clearly, second language acquisition takes place when the information attended to through working memory is stored in long-term memory. Free recall is in fact a beginning step toward storing the information in long-term memory.

Briefly put, in this study, a recall task was used to measure the effect of output processing on subsequent input processing in the two linguistic domains, grammar and vocabulary.

3. Method

3.1. Participants

Fifty-two EFL learners participated in this study. They were recruited from among the native speakers of Persian enrolled in general English classes at Iran Language Institute (ILI) in Isfahan, Iran. All of the participants were female and were selected from the low-intermediate proficiency level. They were assigned to this level based on the oral and written proficiency test of ILI. The participants were randomly assigned to two treatment conditions. Of these, twenty-four were assigned to the non-output condition and twenty-eight to the output condition.

3.2. Materials

In order to investigate the possible effects that output processing could have on subsequent input processing, two types of instruments were used to collect the necessary data: a picture prompt and a native speaker model story.

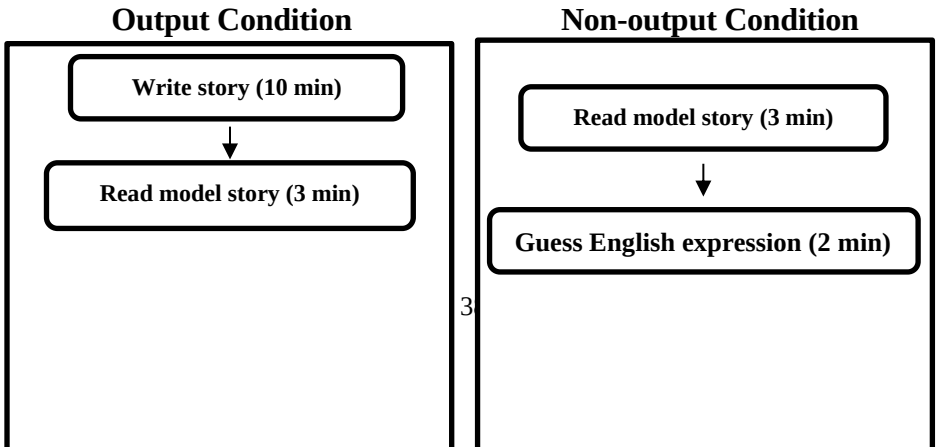
The picture prompt consisted of a series of four cartoon pictures that showed the procedure of a story from the beginning to the end (see

Appendix A). This was adapted from a study done by Suzuki et al. (2009). The reason for choosing picture prompt for output task was that besides pushing learners to produce the target language, the picture prompt writing task is believed to lessen the memory load of remembering the model story for both output and non-output groups. In addition, picture prompt activities are essentially meaning-based educational activities that enable the learners to devote some attentional resources to features of target language.

The native speaker model story was composed of a paragraph of 83 words written by a native English speaker describing all the events of the picture prompt (see Appendix B).

3.3. Procedure

The procedure of the study is depicted in Figure 1. As it can be seen, the treatment started with an output phase of the experimental group (output condition). All the participants in the output condition were presented with a series of four cartoon pictures (see Appendix A) and were asked to procedure a story in English based on this series in ten minutes. After ten minutes, their first output was collected by the researchers. As illustrated in Figure 1., there was no output-first phase for the participants in the control groups (non-output condition). I phase two, participants in both conditions were handed out a model story written by a native English speaker describing the four cartoon pictures (see Appendix B) and were given these minutes to read it. The model stories were handed in after three minutes. Next, the participants in both conditions were provided with a few Persian expressions or slangs and were asked about their English equivalence for two minutes. Finally, both groups were given blank sheets and were required to recall, in writing, the model story as accurately as possible in seven minutes. In general, it took about twenty-two minutes for the output participants to complete the experiment, whereas it took about twelve minutes for the non-output participants to complete the experiment.



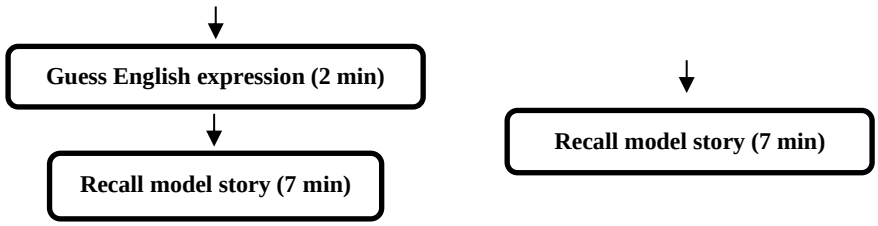


Figure 1. **Steps involves in conduction the study**.

The following important points should be taken into account:

- Piloting the study with eight students from the similar population, the researchers found that participants' interpretation of the cartoon pictures differed from the native speakers. Therefore, to avoid different interpretations on the part of the students, the cartoon pictures were distributed among the participants in the output condition and before they started to write their first output, the Persian translation of the story was orally presented to them.
- During the input exposure, all of the participants in both conditions were presented with the cartoon pictures together with the model story.
- To ensure that participants would concentrate on their linguistic gaps and problems, they were prohibited from using dictionaries during the experiment.
- During the pilot test, the appropriate amount of time allotted to each phase of the experiment was estimated. The results were similar to the time used for each phase in Suzuki et al.'s (2009) study.
- All the participants were informed of the amount of time they would be allowed prior to each phase.
- None of the participants in the experimental and control groups were informed of the procedures to be followed throughout the story prior to the experiment. In other words, participants read the model story without knowing that they would later be asked for its retrieval. This way they might not memorize or keep a note of the L2 input. It should be emphasized, however, that the control for time of exposure to the input was also set in such a way that memorizing and keeping notes were not possible.
- The participants were told that there would be no limitation concerning the length of their paragraphs.
- They were also told that misspelling would not be penalized.

- To avoid the effect of repetition on learners' output, the task was presented to learners just once.

Scoring procedure. To measure the participants' intake during subsequent input processing, scores were computed for the two categories of grammar and vocabulary separately to assess how much of the model story the participants could accurately recall. It is worth mentioning that errors related to spelling were ignored.

Vocabulary scores were calculated for each participant by assigning one point to each word. Because the model story included a total of 83 words, the scores of participants ranged from 0 to 83 in the vocabulary test.

Grammar scores were calculated for each participant by awarding one point to each correctly recalled targeted grammatical structure. Because only 20 grammatical structures were determined from the model story, the scores of the participants ranged from 0 to 20.

To avoid subjective interpretations, the researchers only considered credits for the exact usage of the words and grammatical structures in the model story. On this basis, no points were assigned to the words or grammatical structures that were different from those of the model story, even when they had similar meanings to the words and grammatical expressions of the original story.

4. Results

Table 1. shows the descriptive statistics of the participants of this study. It contains the means and standard deviations of the vocabulary and grammar test scores obtained by the participants of this study in output and non-output conditions.

Table 1. *Descriptive Statistics for Both Groups of Participants*

	Treatment group	n	M	SD
vocabulary	Output	28	31.86	8.204
	Input	24	25.67	6.735
Grammar	Output	28	4.04	2.151
	Input	24	2.29	1.367

As displayed in Table 2., the results of the t-test showed a significant difference between the two treatment conditions (output vs. non-output) in both the vocabulary (p = .005) and grammar test scores (p = .001). This means that the participants in the output condition obtained higher scores in both vocabulary and grammar than those in the non-output condition.

Table 2. *T-test Comparison of Mean Scores Obtained from the Treatment Conditions*

	T-test for Equality of Means				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Vocabulary	2.94	50	.005	6.19	2.10
Grammar	3.42	50	.001	1.74	.51

To examine whether the output-input sequence could result in better vocabulary acquisition or grammar acquisition, MANOVA and multivariate regression were applied. According to Table 3, comparing the F-values indicates that the output-input sequence had a larger impact on grammar learning than vocabulary learning. According to this table, the F-value for grammar scores was F = 11.70 while this value was F = 8.65 for vocabulary scores.

Table 3. *MANOVA for Type of Treatment and Grammar and. Vocabulary*

Source	Dependent Variable	Type III Sum of Square	df	Mean Square	F	Sig.	Partial Eta Square
Corrected model	Voc	495.23[a]	1	495.23	8.65	.005	.14
	Gram	39.30[b]	1	39.30	11.704	.001	.19
Intercept	Voc	42762.31	1	42762.31	747.394	.000	.93
	Gram	517.38	1	517.38	154.055	.000	.75
Group	Voc	495.23	1	495.23	8.656	.005	.14
	Gram	39.30	1	39.30	11.704	.001	.19
Error	Voc	2860.76	50	57.21			
	Gram	167.92	50	3.35			
Total	Voc	47088.00	52				
	Gram	750.00	52				
Corrected Total	Voc	3356.00	51				
	Grammar	207.231	51				

As shown in Table 4., the output-input sequence resulted in the enhancement of the mean of vocabulary scores to about 6 points and the mean of grammar scores to about 2 points. However, as seen before, the range of variation for vocabulary scores was between 0-83 which is 4 times more than the range of variation for grammar scores (0-20). This means that the output-input sequence provided learners with opportunities for more grammar learning than vocabulary learning. The results of multivariate regression confirmed the greater efficiency of the output-input sequence on the grammar acquisition.

Table 4. *Multivariate Regression for Type of Treatment and Grammar vs. Vocabulary*

Dependent Variable	Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
						Lower Bound	Upper Bound	
Vocabulary score	Intercept	31.857	1.429	22.286	.000	28.986	34.728	.909
	[group=0]	-6.190	2.104	-2.942	.005	-10.417	-1.964	.148
	[group=1]	0[a]	.	.	.	.	.	.
Grammar Score	Intercept	4.036	.346	11.653	.000	3.340	4.731	.731
	[group=0]	-1.744	.510	-3.421	.001	-2.768	-.720	.190
	[group=1]	0[a]	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant

5. Discussion

As noted, before this research revolved around a study concerning itself with investigating whether the specific characteristics of input processing preceded by output processing had a differential effect on the acquisition rates of linguistic domains, grammar and vocabulary, among two groups of low-intermediate EFL learners.

On the basis of the results obtained from the t-test, a significant difference was found between the participants of experimental and control groups in both vocabulary and grammar scores. The overall test results revealed that the output group experienced greater improvement on the recall test (in both vocabulary and grammar scores) than did the non-output group. In other words, the participants who went through the output and then received the appropriate input recalled the relevant input (model story) more accurately than those who were exposed to the same input only.

The positive effect of output demonstrated in this study is consistent with Swain's (1995) Output Hypothesis, which indicates that producing language, under some circumstances, may result in the development of second language acquisition.

The results imply that the treatment conditions (i.e., output vs. non-output) appear to contribute significantly to the extent of the attention paid to the vocabulary items and grammatical structures presented in the input. This means that when students produce the language first, that, they experience output-first sequence, they detect the gaps and problems in their knowledge, gaps such as the linguistic forms needed, the vocabulary items they do not know, as well as their problems in the application of grammatical structures. This detection prompts learners to search for and focus on the relevant input with more attention. In other words, when they immediately receive the relevant input, they concentrate on the words, structures and in general the parts they had problem with when producing the language and consequently internalize these features of the input and when these features are needed (e.g., in free recall task), the participants can successfully retrieve them from their memory. This is in accord with the noticing function of output in language acquisition proposed by Swain (1995). The findings of this study lend empirical evidence to the noticing function of output, which is believed to be one of the cognitive processes that underlie the effect of output on L2 development.

The rationale for looking at learners' noticing through their output is also rooted in Schmidt's (1990, 2001) Noticing Hypothesis. The claim is that the conversion of input into intake without attention is impossible. In a recent attempt, Schmidt (2010) reviewed the studies done on the Noticing Hypothesis and stipulated that there is growing evidence that noticing has a strong effect on L2 acquisition.

The results obtained in our study mirror those of Qi and Lapkin (2001) and Hanaoka (2007) in that in both studies participants notice their linguistic gaps and problems during output, seek solutions in the follow-up input and employ them into their second output.

De Bot (1996) argues that output brings about cognitive processes which, in turn, engage learners in a cognitive comparison between their own interlanguage and the target language. To put it differently, output-input

sequence makes learners actively compare what they have written with what a native English speaker has written to convey the same message. As de Bot assumes "actively making this particular trace in memory is more effective than merely perceiving it. The explanation probably lies in the amount of attention invested" (P.546).

Moreover, when producing output, learners recognize the gaps in their knowledge and based on their existing knowledge, they try to produce the required language. In the input phase, if what is produced by learners matches what is produced by native English speakers, it will be consolidated and can be easily retrieved from memory in the recall task. By the same token, if learners' output does not match the native speakers', they modify or reject their assumptions, notice and internalize the correct features used by native speakers. As a result, they can retrieve them more easily in their recall task. This finding seems to corroborate Swain's claim of the hypothesis-testing function of output in language acquisition. As Muranoi (2007) claims, producing output may call forth the cognitive processes, such as "formulating, testing, confirming, modifying and rejecting a hypothesis about the target language system" (p.56), which may accelerate the development of L2 acquisition.

An interesting issue to notice is that when learners notice the gaps and/or holes in their knowledge or face with problems in producing language they seem to be very eager to seek solution to these difficulties and find out how native speakers produce the target item. As a result, they are strongly motivated to study the native speakers' models presented to them in the next phase. The implication is that we psychologically wish to reduce the gaps that may arise between our interlanguage knowledge and the target language. This highlights the role of motivation in L2 learning. Indeed, motivation is associated with noticing and prompts learners to pay some form of focal attention to input and subsequently convert the relevant features of the input into memory (i.e. intake).

This line of research, namely, the role of motivation in any language learning task has not gone unnoticed by researchers. There is growing consensus, today, as to the crucial role that motivation plays in the language learning process. "Motivation is often seen as the key learner variable because without it nothing happens" (Schmitt, 2002, p. 172). As Dornyei

(2010) puts it, through adequate motivation, language learners are able to achieve an effective knowledge of a second language even if they are not intelligent enough; while without motivation, no useful language acquisition will take place even by the most intelligent learners.

Ellis (2008) also stipulates that motivation has a significant effect on language learning in both formal and informal situations. According to him, involving learners to 'self-directed' learning prompts their motivation which results in effective learning. This is the case with output-first sequence; during the output phase, learners notice the problems in their interlanguage, thereby their curiosity is aroused and they are eager to find the relevant target language features. That is, through output phase, learners decide on what they need and want to learn and pay selective attention to the subsequent input. In this way they are motivated because they become involved in a self-directed learning process.

Hanaoka (2007) has also talked about the role of motivation in output and suggested that during output task, learners design their learning-plan that motivates them not only to have a selective attention to the relevant input but also to use the features of input. This, in turn, results in better retrieving of those items compared with the items that do not exist in their plan.

This line of argument also finds support in Brown's (1993) claim that before providing learners with a lexical item, try to create a situation that L2 learners experience a need for that item. This way the learned item may stick to learners' long-term memory (Hanaoka, 2007).

Drawing on what has been said so far, we would venture to say that motivation should be conceded as another function of output and should be added to its four other functions.

Considering the above discussion, one might conclude that the type of motivation output triggers is intrinsic motivation. Intrinsic motivation is defined by Noels, Pelletier, Clement, and Vallerand (2000) as "motivation to engage in an activity because it is enjoyable and satisfying to do so" (as cited in Ellis, 2008, p. 687). They identified three types of intrinsic motivation: (1) 'knowledge' that refers to the motivation obtained from discovering new ideas and knowledge, (2) 'accomplishment' that refers to the motivation that comes from enjoyable feeling of pursuing a goal. And

(3) 'stimulation' that refers to the motivation activated by the pleasure and excitement of really doing a task (Ellis, 2008). Given this understanding together with what was discussed above indicates that all the three types of intrinsic motivation are triggered by output.

Examining the related statistics obtained from MANOVA and multivariate regression, it was revealed that output-input sequence had a larger impact on grammar learning than vocabulary learning. That is, the participants obtained higher grammar scores in the output condition and compared to non-output condition their vocabulary scores were also better, although not as much as grammar scores. According to the findings of this study, the output task helped the learners recall the model story mainly on the grammar level.

These results are contrary to Williams' (1999) belief that second language learners, especially at lower levels of proficiency, mostly tend to focus on lexical meaning than on formal aspects of language. He asserts that "learners focus, above all things, on words" (p. 338).

The outcomes of the present study also run against Gass and Alvarez Torres' (2005) findings. They found that the greatest amount of learning takes place with lexical items because vocabulary is an area of language that is 'non-complex' and 'non-abstract', and thus requires less attention on the part of the learners to be analyzed and stored.

Similarly, Hanaoka (2007) viewed that through output, learners mostly notice their lexical difficulties and seek the subsequent input to find solutions mainly for their lexical problems.

6. Conclusion

In conclusion, the results of this study provided evidence that output-first sequence might lead to better acquisition of the vocabulary items and grammatical structures. Based on the Output Hypothesis, the result of this study showed that output-first-then-input sequence was effective because it promoted cognitive processes including noticing, comparing, and formulating and hypothesis testing. Also, the researchers, regarding the fact that output leads to self-directed learning and conscious-rule discovery, claimed that output-first sequence motivates language learners strongly, and accordingly will accelerate internalization of linguistic knowledge.

More specifically, the results of the present study imply that output-input sequence in classroom might bring about considerable achievements on the part of the learners. It seems that output-input sequence provides learners with optimal situations for internalizing the input in their interlanguage. To put it differently, the findings can contribute to the learning of English as a foreign language by EFL learners.

As with most studies, this study has some limitations. First, the participants in the output group were required to complete a task more than the participants in the non-output condition for 10 minutes. The time spent on the output processing may lead the participants of the output condition to recall the story directly from the output task without considering the input. So future SLA research should take this issue into account to make sure that only the cognitive processes activated by output result in the effect of output on subsequent input processing, not the time spent in completing the output tasks.

Second, to avoid different interpretations on the part of the learners in output condition, the researcher found it necessary to orally present the Persian story to them. However, this familiarity with the content of the input might have helped the participants of the output condition in the follow-up input processing and consequently can have resulted in better recalling of the future input by the output participants.

Third, to escape subjective interpretations of the results and to increase the preciseness of the measurement, points were only scored for the usage of the exact words and grammatical structures in the model story. But according to the literature in the cognitive psychology, the information is mainly stored in the form of meaning, not in exact wording (Anderson, 2005). As a result, using different lexical items and grammatical structures by language learners to convey the same meaning demonstrates better understanding and internalizing of the input. Therefore, it is recommended that score points for the equivalent features, too.

The twenty-minute treatment applied in this study was not strong enough to show a significant effect. Learning usually takes place over time. Therefore, studies of learning should include repeated treatments of the same kind over an extended period of time. It is, of course, expected that

some changes are maintained over time. However, the present study failed to measure theses delayed changes.

Another area worthy of further investigation is the modality of both input and output. Will the similar results be obtained if the modality of input and/or output changed from written to the oral or aural modes?

References

Abadikhah, S. (2012). The effect of mechanical and meaningful production of output on learning English relative clauses. *System*, 20, 1-15.

Anderson, R. (2005). *Cognitive pschology and its implications* (6th ed.). New York: Worth Publishers.

Brown, C. (1993). Factors affecting the acquisition of vocabulary: Frequency and sailency of words. In T. Huckin, M. Haynes & J. Coady (Eds.), *Second language reading and vocabulary learning* (pp. 263-286). Norwood, NJ: Ablex.

De Bot, K. (1996). The psycholinguistics of the output hypothesis. *Language Learning, 46,* 529-555.

Dornyei, Z. (2010). Researching motivation: From integrativeness to the ideal L2 self. In S. Hunston & D. Oakey (Eds.), *Introducing applied linguistics: Concepts and skills* (pp. 74-83). London: Routledge.

Ellis, R. (1981). The role of input in language acquisition: Some implications for second language teaching. *Applied Linguistics, 11*(1), 70-82.

Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.

Ellis, R., & Wells, G. (1980). Enabling factors in adult-child discourse. *First Language, 1,* 46-82.

Ericsson, K. A., & Simon, H. A. (1993). *Protocol analysis*. Cambridge, MA: MIT Press.

Faerch, C., & Kasper, G. (1986). The role of comprehension in second language learning. *Applied linguistics, 7* (3), 257-274.

Gass, S. M. (1997). *Input, interaction, and the second language learner.* Mahwah, NJ: Lawrence Erlbaum.

Gass, S. M. (2003). Input and interaction. In C.J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 224-255). Oxford: Blackwell.

Gass, S. M., & Alvarez Torres, M. J. (2005). Attention when? An investigation of the ordering effect of input and interaction. *Studies in Second Language Acquisition, 27,* 1-31.

Gass, S. M., & Madden, C. (1985). *Input in second language acquisition*. Rowley, MA: Newbury House.

Gass, S. M., Svetics, I., & Lemelin, S. (2003). Differential effects of attention. *Language Learning, 53,* 495-543.

Hanaoka, O. (2007). Output, noticing, and learning: an investigation into the role of spontaneous attention to form in a four-stage writing task. *Language Teaching Research, 11,* 459-479.

Izumi, S. (2002). Output, input enhancement, and the noticing hypothesis: An experimental study on ESL relativization. *Studies in Second Language Acquisition, 24,* 541-577.

Izumi, S., & Bigelow, M. (2000). Does output promote noticing and second language acquisition? *TESOL Quarterly, 34,* 239-278.

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,* 421-452.

Keck, C. M., Iberri-Shea, G., Tracey-Ventura, N., & Wa-Mbaleka, S. (2006). Investigating the empirical link between task-based interaction and acquisition: A meta-analysis. In J.M. Norris & L. Kim, Y. (2008). The contribution of collaborative and individual tasks to the acquisition of L2 vocabulary. *The Modern Language Journal, 92,* 114-130.

Krashen, S. D. (1980). The input hypothesis. In J. Alatis (Ed.), *Current issues in bilingual education* (pp. 144-158). Washington, DC: Georgetown University Press.

Krashen, S. D. (1985). *The input hypothesis: Issues and Implications.* London: longman.

Loschky, L. (1994). Comprehensible input and second language acquisition: what is the relationship? *Studies in Second Language Acquisition, 16* (3), 303-323.

Mackey, A. (2002). Beyond production: Learners' perceptions about interactional processes. *International Journal of Educational Research, 37,* 379-394.

Muranoi, H. (2007). Output practice in the L2 classroom. In R. M. Dekeyser (Ed.), *Practice in a second language: Perspectives from applied linguistics and cognitive psychology* (pp. 51-84). Cambridge: Cambridge University Press.

Nabei, T. (1996). Dictogloss: Is it an effective language learning task? Working Papers in Educational Linguistics, 12, 59-74.

Nagata, N. (1998). Input vs. output practice in educational software for second language acquisition. *Language Learning and Teaching, 1*(2), 23-40.

Nassaji, H., & Tian, J. (2010). Collaborative and individual output tasks and their effects on learning English phrasal verbs. *Language Teaching Research*, *14*(4), 397-419.

Noels, K., Pelletier, L., Clement, R., & Vallerand, R. (2000). Why are you learning a second language? Motivational orientations and self-ditermination theory. *Language learning*, 50, 57-85.

Qi, D. S., & Lapkin, S. (2001). Exploring the role of noticing in a three-stage second language writing task. *Journal of Second Language Writing, 10*, 277-303.

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

Schmidt, R. (1995). Consciousness and foreign language learning: A tutorial on the role of attention and awereness in learning. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 1-63). Honolulu: University of Hawai'i Press.

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

Schmidt, R. (2010). Attention, awareness and individual differences in language learning. In W. M. Chan, S. Chi, K. N. Cin, J. Istanto, M. Nagami, J. W. Sew, T. Suthiwan & I. Walker (Eds.), *Proceeding of CLaSIC* (pp. 721-737). Singapore: National University: Center for Language Studies.

Schmitt, N. (2002). *An introduction to applied linguistics.* London: Arnold.

Sharwood Smith, M. (1993). Input enhancement in instructed SLA. *Studies in Second Language Acquisition*, *15* (2), 165-179.

Song, M . J., & Suh, B. R. (2008). The effects of output task types on noticing and learning of the English past counterfactual conditional. *System, 36*, 295-312.

Storch, N. (2005). Collaborative writing: Product, process, and students' reflections. *Journal of Second Language Writing, 14*, 153-173.

Storch, N. (2007). Investigating the mertis of pair work on a text editing task in ESL classes. *Language Teaching Research*, 2, 143-159.

Suzuki, W., Itagaki, M., Takagi, T., & Watanabe, T. (2009). The effect of output processing on subsequent input processing: A free recall study. *Applied linguistics, 9* (1), 1-17.

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* (pp. 235-253). Rowley, MA: Newbury House.

Swain, M. (1998). Focus on form through conscious reflection. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 64-81). New York: Cambridge 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: Studies in honor of H. G. Widdowson* (pp. 125-144). Oxford: Oxford University Press.

Swain, M. (1997). Colloborative dialogue: Its contribution to second language learning. *Revista Canaria de Estudios Ingleses*, 34, 115-132.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *The handbook of research in second language teaching and learning* (pp.471-483). Mahwah, NJ: Lawrence Erlbaum.

VanPattern, B. (1994). Evaluating the role of consciousness in second language acquisition: Terms, linguistic features, and research methodology. *AILA Review, 11,* 27-36.

VanPatten, B. (1996). *Input processing and grammar instruction: Theory and research*. Norwood, NJ: Ablex.

VanPatten, B. (2007). Input processing in adult second language acquisition. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (pp. 115-135). Mahwah, NJ: Lawrence Erlbaum.

Vygotsky, L. S., (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press, Cambridge.

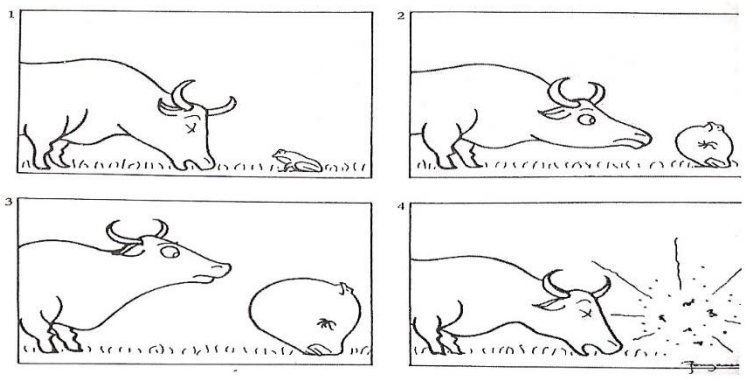
White, L. (1987). Against comprehensible input: The input hypothesis and the development of second language competence. *Applied linguistics,* 8(2), 95-110.

Williams, J. (1999). Learner-generated attention to form. *Language learning, 49*, 583-625.

Zhang, S. (2009). The role of input, interaction and output in the development of oral fluency. *English Language Teaching, 2*, 91-100.

Appendices

Appendix A. Four Cartoon Pictures



Appendix B. Model Story

One day, a frog was sitting[4] on the grass, looking at[5] a cow. The cow was eating[6] the grass quietly. The frog thought that the cow was a very big animal[7], and it wanted to be[8] a very big animal, too[9]. So, it began to fill[10] itself[11] up[12] with air. The cow looked at[13] it in surprise[14]. The frog went on[15] filling[16] iteself[17] with more air[18] until suddenly---bang[19]! It broke into[20] little pieces[21.] The cow went back to[22] eating[23] the grass quietly.

Note: The underlining with the numbers indicates the predetermined 20 target grammatical forms.