

Comparing the Effect of Output vs. Input Instruction on Iranian EFL Learners' Learning of Resumptives

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Abstract

This study aimed at comparing the effect of input and output instruction on learning Resumptives by Iranian EFL learners. To this end, 50 individuals (all females) who were all native speakers of Persian and their age ranged from 18 to 28 were chosen through convenient sampling. They were divided into two experimental groups, 25 people each. Before the treatment, in order to take up initial differences between the groups, the participants were given the writing section of a TOEFL test. Then the participants in the first group attended five 90-minute input based grammar instruction sessions while the second group participated in five 90-minute output based grammar instruction sessions. At the end of the treatment period, the participants were given a researcher made grammar test to compare their knowledge of resumptives. The data collected from the pre-test and the post-test were then analyzed through independent samples *t*-test which showed the output practice can be more beneficial than the input practice.

Keywords: output instruction, input instruction, resumptive

I. INTRODUCTION

A. Input

An observable fact of the language acquisition process is that no language, be it the first (L1) or the second (L2), can be learned successfully without extensive and meaningful exposure to that language. Accordingly, all theories of second language acquisition (SLA) attribute a significant role to *input*, which can be succinctly defined as the language in the learner's environment. It seems to be universally accepted that SLA is dependent on input (Gass, 1997; VanPatten, 2004).

The emphasis on aural input in L2 teaching methods can be traced back to the Direct Method in the 19th and early 20th century, which also emphasized speaking and correct pronunciation. Subsequently, in the 1960s and 1970s, input-based approaches were promoted by Asher (1969).

By the end of the 1970s, researchers had become aware of the need to examine the raw material or input with which the learners had to work, recognizing, of course, that not all input would become intake (Corder, 1967). Many studies investigated the link between input and output (Gass & Madden, 1985). With regard to the quantity of the input, many, but not all, researchers adduced evidence in support of the hypothesis that learners who have the opportunity to use the L2 regularly or to receive the most input will exhibit the greatest proficiency. Research in the area of input quality searched for a link between certain characteristics of the input (perceptual saliency, frequency of occurrence, syntactic complexity, semantic complexity, instructional sequence) and some aspect of the learners' output.

In 1980s, the case for input was made by Krashen (1982) as part of his Monitor Model, a theory the central tenet of which was the Input Hypothesis. Krashen has consistently defended the idea that language acquisition is primarily a subconscious process driven by exposure to comprehensible input: According to Krashen (2009) “we acquire language and develop literacy when we understand messages, that is, when we understand what we hear and what we read” (p.81).

B. Output

Output hypothesis was formulated by Swain (1985) through a research in Canada. In this research she found out children who spent years in immersion programs, significantly fell short of native like abilities. She hypothesized that what was lacking, was sufficient opportunities for language use. She claimed that language production forces learners to move from comprehension (semantic use of language) to syntactic use of language. There are two functions for output:

1. Pushing learners to produce more target like output.
2. Promoting automaticity.

Most language learning researchers agree that output is necessary to increase fluency, that is, learners must practice producing second language utterances if they are to learn to use their interlanguage system confidently. There are at least two perspectives that ascribe a more fundamental role to output in SLA. One perspective has suggested that both input and output develop corresponding comprehension and production skills (e.g., DeKeyser & Sokalski, 1996). From a second perspective, the output hypothesis (Swain, 1998) holds that although input is essential to SLA, output might also bring about mental processes that both directly and indirectly affect acquisition. Research motivated by this hypothesis has supported a positive role for output practice in conjunction with input (e.g., Izumi, 2002; Swain, 1995). Following the idea that both input- and output-based instruction can be effective for SLA, many studies have attempted to compare the two under a variety of research. Swain (1995, p. 128) proposes three further functions for learner output:

1. The “noticing/triggering” function, or what might be referred to as the consciousness-raising role

2. The hypothesis-testing function
3. The metalinguistic function or what might be referred to as its 'reflective' role.

Indeed, Swain (1995) believes that the activity of producing the target language may push learners to become aware of gaps and problems in their current second language system (first function); it provides them with opportunities to reflect on, discuss and analyze these problems explicitly (third function); and of course, it provides them with opportunities to experiment with new structures and forms (second function).

C. Statement of the Problem

Teaching grammar has been an important issue in learning a second and foreign language for many years. Scholars have adopted and designed different approaches to teaching grammar reflecting their conceptions of the nature of language and language learning. Input and output instructions are two different approaches which have their own proponents and opponents in teaching grammar. Although different approaches were introduced to second language field to ease learning grammar, the learners still face lots of difficulties in learning and using grammar rules. One such area of difficulty for Persian learners of English is resumptives as they are used in their mother tongues but not in English.

Resumptives occur in relative clauses and they usually come after relative pronouns. It seems that learners have problems in learning resumptive pronouns in relative clauses. Even learners in high stages of learning language such as upper intermediate level suffer from the wrong use of resumptives let alone beginners. Although teaching different grammatical structures has been a matter of research for a long time, teaching resumptives seems neglected.

D. Significance of the Study

Grammar is a crucial element of every language. Therefore, there are various approaches to teaching it to language learners. Each research which paves the ground for finding an adequate and useful approach to teaching grammar is of great importance. So this study strived to investigate two constructs, output and input based instruction, which have been playing vital role in language learning. The results of different studies like the present research may provide evidence to eliminate the dispute between input and output instructions. In addition, it may have some implications for syllabus designers, material developers. It can also be helpful to the teachers whether to concentrate on input and comprehension or output and production.

E. Purpose of the Study

This study aims at comparing the possible effects of output instruction and input instruction on learning resumptives and to examine which is more effective.

F. Research Question

The study reported here strives to answer the following question: *Does output practice affect Iranian EFL learners' acquisition of resumptive any differently than input practice does?*

II. LITERATURE REVIEW

Throughout the history of language teaching, many studies have been done through different modalities over different grammatical structures. But there is one area in which we observe a paucity of research that is resumptives in relative clause. By the advent of information processing models, most of the scholars turn their attention to components of these models (input, output). Therefore, they coined new terms like processing instruction and output based instruction.

Krashen (1985) introduces the notion of comprehensible input hypothesis to second language acquisition. He contends that natural exposure to enough amount of comprehensible input provides learners with the opportunity to acquire language. In his words, the only mechanism for acquiring language is through exposure. He was one the proponents of teaching grammar indirectly. On the other hand, Swain (1985) criticizes the comprehensible input hypothesis and introduced the comprehensible output hypothesis into SLA. She claims that comprehensible input is not the only necessary factor in the second language acquisition. In her opinion, production practice has a crucial role in acquiring the language, for it pushes learners to use their linguistic knowledge in order to produce language and convey the message to be understood appropriately by interlocutors.

Nagata (1998) conducted an experimental study concerning the relative effectiveness of computer assisted comprehension practice and production practice in the acquisition of a second language. The results of the study show that the group with output-based program outperformed the other group with input-based program. This study supports Swain's output hypothesis that emphasizes on the positive role of output in second language acquisition. In another study done by Soleimani et al. (2008), output instruction and output-fronted activities had positive effects on the acquisition of rhetorical structure of contrast paragraph among Iranian EFL university students.

As scholars like Ellis (2006) emphasize “use should be made of both input-based and output-based instructional approaches to achieve more efficient results”. Also Zhang Xiaorong (2007) conducted a study in SLA with its focus on the role of input, interaction and output in the development of oral fluency in the EFL context. The results of this study support the imperative role of input, interaction and output in the development of oral fluency.

According to VanPatten (1996), the originator of the Processing Instruction (PI), PI is an input based grammar instruction which aims to affect learners' attention to input data which is in compliance with second language theories and communicative language teaching. Sheen (2007) says that mostly the input based innovations have not been proved to be effective for helping learners to acquire accuracy. In contrast with this point VanPatten accepts the fundamental role of input and uses the term input processing for the cognitive

process which occurs when input is understood and integrated into language. But VanPatten (2002) and Swain (1998) saying “output may play a role as a focusing device that draws learner’s attention to something in the development of fluency and accuracy.

Hashemnezhad and Zangali (2012) investigated the effect of these two types of instruction on Iranian EFL learners' writing ability and found processing instruction (PI) more effective. On the other side, Birjandi et al. (2011) claimed that Processing instruction (input-based instruction) and output instruction (OI) had no significant advantage over each other on learning passive structures by Iranian EFL learners.

Although previous research focused on different types of grammatical structures such as passive voice and on writing skill, on oral fluency, rhetorical structures ..., resumptives seem neglected. Learners usually have difficulty in learning resumptives. Resumptive pronouns are used instead of gaps in relative clauses. Zhang Xiaorong (2007) states that learning relative clauses and using resumptive pronouns is usually difficult for learners and may obstruct learning the language. Acquisition of relative clauses and the correct usage of resumptive pronouns are very important because of their high frequency in both spoken and written language.

III. METHODOLOGY

A. Participants

The sample participating in this study consisted of 50 EFL learners conveniently sampled out of a total of 150 learners (all females) in the form of two intact classes who were all native speakers of Persian and their age ranged from 18 to 28. They were studying English in Pardis Language Institute in Hamedan, Iran, at Upper Intermediate (UI) level.

B. Design of the Study

The research method used to carry out the study reflected a quasi-experimental design with a pre-test and post-test and two experimental groups’ performances were compared.

C. Instruments

The instruments utilized to collect the data included a TOEFL test and a researcher-made test. The TOEFL test which was used as the pre-test was taken from the official TOEFL website and it included 40 grammar items; the first 15 items were multiple-choice items and the last 25 items were sentence correction. The time limit for this test was 25 min (see Appendix 1). The post-test consisted of 40 items dealing with resumptives, all selected from TOEFL tests available on TOEFL website. The first 10 items were sentence completion, the second 10 items were grammatical correction, the third 10 items were multiple choice items and the last 10 items were code- mixing items. The reliability of the post-test was measured through K-R21 method and it was found to be 0.87. The time limit for the test was 25 min.

D. Procedure

After deriving the sample of the study, the participants were divided into two groups and they were given a pretest which its reliability was measured by K-R 21 method to take up the initial differences among subjects. The purpose of the pre-test was to measure the subjects' level of grammar knowledge in general and knowledge of resumptive clauses in particular.

After the pre-test, the treatments started. The treatments lasted for five 90-minute sessions. In the first 60 minutes, the subjects received instructions about adjective clauses and in the last 30 minutes, two kinds of tasks were administered to them. The first task was administered to the first experimental group to consolidate the students' input comprehension of adjective clauses and the second task was administered to the second experimental group to consolidate the students' output comprehension of adjective clauses. The time limit for each of these tasks was 15 minutes.

The overall tasks in treatment period were 10 tasks, 5 tasks related to output, 5 tasks related to input. The 5 tasks related to output adjective clauses included:

- Sentence combination
- Code-mixing
- Grammatical correction
- Discourse test
- Paragraph writing
- The five tasks related to input resumptive clauses included:
 - Multiple-choice questions
 - Structure recognition
 - Matching items
 - True/False (T/F) items
 - Multiple-choice cloze tests

After pre-test and five sessions of treatment, a post-test was administered to the subjects. This post-test consisted of 40 items and the time limit for that was 25 min. In the first 10 items the subjects were required to combine two sentences to make a complex sentence including a relative clause, the second 10 items asked the subjects to decide which sentences were grammatically correct or incorrect. The next 10 questions were multiple-choice questions that required the subjects to read the question and choose the correct option from among the four alternatives. The last 10 questions in the post-test were code-mixing, in which the subjects were required to translate a sentence from Persian to English, considering relative clauses.

In order to measure the reliability of the items, they were administered to seven learners through a pilot study. The K-R 21 method showed that the reliability was 0.87.

E. Data Analysis

Independent samples *t*-test, which is a parametric statistical measure, was used to analyze the data and to determine if the means of the two groups were significantly different from one another. Since parametric formulas necessitate ensuring the normality of the data obtained, first the normality measures were taken.

IV. RESULTS

A. Normality of Distribution

To check the normality of distribution of the scores Kolmogorov-Smirnov test was used. Table 1 shows the results of Kolmogorov-Smirnov test.

Table 1: The Kolmogorov-Smirnov Test of Normality of the Distribution of the Scores

group		Kolmogorov-Smirnov		
		Statistic	Df	Sig.
Pretest	1	.186	25	.052
	2	.131	25	.200
posttest	1	.143	25	.200
	2	.126	25	.200

As the data in Table 1 show, Kolmogorov-Smirnov values obtained, are all larger than the significance level of 0.05, which points to a normal distribution of scores.

B. Testing the Research Hypothesis

Descriptive Statistics

Table 1 presents the descriptive statistics for the two groups in pre-test and post-test. According to the table, while the mean scores of the groups on the pre-tests were very close (17.44 and 17.64), the mean scores obtained on the posttest appeared different (24.44 and 29.92). The data obtained are reflected in Table 1 and Figure 1.

Table 2: Mean, Standard Deviation, Minimum Score and Maximum Score

Group	test	Minimum	Maximum	Mean	Std. Deviation
Group1 (N=25)	Pretest	5.00	30.00	17.64	7.32
	posttest	11.00	35.00	24.44	5.83
Group2 (N=25)	Pretest	9.00	27.00	17.44	4.53
	posttest	19.00	38.00	29.92	4.26

Inferential Statistics

The descriptive data presented in Table 2 showed that the mean score of group 1(input group) on the pre-test was 17.64 and the mean score of group 2 (output group) in the pre-test was 17.44. For showing the meaningfulness of this difference, considering normality of the distribution of data, the independent samples *t*-test was utilized. The results of this test are presented in Table 2.

Table 3: Independent samples t-test to Check Meaningfulness of the Difference between Groups on the Pre-test

<i>t</i> -test for Equality of Means						
T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
.12	48	.908	.20	1.72	-3.29	3.66

As it is illustrated in the Table 3, the difference between groups in the pre-test is not meaningful ($t= .12$, $df= 48$, $p>0.05$). In other words, there was no meaningful difference between the groups before the treatment. This implies that the two groups of students were in the same level of grammar knowledge before teaching relative clauses.

The descriptive data presented in the Table 1 showed that after the instruction of relative clauses the mean score of group 1 in the post-test was 24.44 and the mean score of group 2 in the post-test was 29.92. To check the meaningfulness of this difference, considering normality of the distribution of data, the independent samples *t*-test was used. The results of the test are presented in Table 4.

Table 4: The Independent samples t-test checking Meaningfulness of the Difference between Groups on the Post-test.

<i>t</i> -test for Equality of Means						
T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-3.79	48	.00	-5.48	1.44	-8.38	-2.57

As it is illustrated in the Table 4, the difference between group 1(input group) and group 2 (output group) on the post-test is meaningful ($t= -3.79$, $df= 48$, $p= .000$, $p<0.05$). Thus, the research null hypothesis is rejected implying that output practice affects Iranian EFL learners' acquisition of resumptives more than what input practices does. In fact, the

teaching of relative clauses has increased the grammatical knowledge of the participants considering resumptives in group 2(output group) more than group 1(input group) in a meaningful way.

V. DISCUSSION

The results of this study show that both treatment groups made gains from the pretest to posttest which is an indicator of positive influence of input based and output based instruction on teaching grammar. This achievement subscribes to the point that output practice can be more beneficial than input practice.

This runs in contrast to Hashemnezhad and Zangali (2012) who investigated the effect of these two types of instruction on Iranian EFL learners' writing ability and found input based instruction (PI) more effective.

Also Zhang Xiaorong (2007) conducted a study in SLA with its focus on the role of input, interaction and output in the development of oral fluency in the EFL context. The results of this study support the imperative role of input, interaction and output in the development of oral fluency.

However, the results of this study confirms those of a study by Birjandi et al. (2011) in Iran in which output instruction (OI) showed significant advantage over processing instruction (a type of input instruction) on learning passive structures by Iranian EFL learners.

Nagata (1998) also conducted an experimental study concerning the relative effectiveness of computer assisted comprehension practice and production practice in the acquisition of a second language. The results of the study showed that the group with output-based program outperformed the other group with input-based program.

The results of the study is in line with another study done by Soleimani et al. (2008), which output instruction and output-fronted activities had positive effects on the acquisition of rhetorical structure of contrast paragraph among Iranian EFL university students.

Although in this study both groups show positive effect gains were not equal. As you can see group 2 (output based) outperformed group 1 (input based). The superiority of output based over input based instruction in improving the learners' production might be related to the functions that Swain (2001) lists for output. That is, the feedback the learners of this study received after doing the output activities might have helped them to compare their own production with the correct model provided by the teacher, and through this comparison they might have noticed the gap in their linguistic knowledge.

Since group 1 (input based) learners were not producing anything during the instructional phase, providing feedback did not help them much because they did not have the chance to notice the gap in their developing system. The learners' output in the group 2 (output based) class might have also acted like 'auto input' (Ellis, 2003) for them and helped the acquisition process.

The efficacy of output group was higher not only in learning grammar but also in different modalities.

As mentioned earlier PI is an approach to teaching grammar based on Krashen's (1981) input hypothesis. According to VanPatten (1996), PI is an input based grammar instruction which aims to affect learners' attention to input data which is in compliance with second language theories and communicative language teaching. Sheen (2007) contends that mostly the input based innovations have not been proved to be effective for helping learners to acquire accuracy. In contrary to this point, VanPatten accepts the fundamental role of input and uses the term input processing for the cognitive process which occurs when input is understood and integrated into language. But VanPatten (2002) cites Hass (1997) and Swain (1998) saying "output may play a role as a focusing device that draws learner's attention to something in the development of fluency and accuracy. Consequently the results of this study support the latter by subscribing to this point that in teaching resumptives, output based tasks (instruction) can play very crucial role.

VI. CONCLUSION

The results of the present study support Swain's claim (1985) who criticizes the comprehensible input hypothesis and introduces the comprehensible output hypothesis into SLA. She claims that comprehensible input is not the only necessary factor in the second language acquisition. In her opinion, production practice has a crucial role in acquiring the language for it pushes learners to use their linguistic knowledge in order to produce language and convey the message to be understood appropriately by interlocutors.

The minimal changes between these two types of instruction might also imply that, as Ellis (2006) emphasizes, use should be made of both input-based and output-based instructional approaches to achieve more efficient results.

The role of resumptive pronouns, as one of the key components in comprehending compound and complex sentences, was neglected. Most of the times, resumptive pronouns have been categorized as an element in relative clause. Because of this point teachers and material developers didn't give any heed to them.

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Appendix 1

Pretest

A) Fill in the blanks with the best choice.

1. Inertial navigation,---- a vital role in space exploration, employs devices called accelerometers to measure accelerations of spacecraft.
(A) it plays
(B) which plays
(C) which it plays
(D) in which plays
2. ----- they rely on external sources of warmth, amphibians in cool regions hibernate through the Winter.
(A) Because
(B) By reason of
(C) Due to
(D) Since that
3. In 1846 --- agreed upon the boundaries separating what would become Washington and British Columbia.
(A) when the Canadian and United States governments
(B) the Canadian and United States governments which
(C) with the Canadian and United States governments
(D) the Canadian and the United States governments
4. Prized for centuries for their beauty, roses are probably the world's --- plants.
(A) cultivated ornamental most widely
(B) ornamental widely cultivated most
(C) most widely cultivated ornamental
(D) widely ornamental most cultivated
5. In area, Montana is the fourth largest state in the United States,---- it ranks forty-fourth in population.
(A) nor
(B) in spite of
(C) how
(D) but

6. Larch and spruce trees ---- in bogs and wet areas of the northern United States.
(A) found
(B) are found
(C) have found
(D) finding
7. Ostrich eggs are larger ----of any Other living animal; they may be 150 mm long and 127 mm wide and have a shell 1.97 mm thick.
(A) than those
(B) of those
(C) those that
(D) than
8. Although rain falls throughout most of the world, in Antarctica, and in a few other places, ----- precipitation occurs as ice and snow.
(A) and all
(B) all
(C) where all
(D) it is all
9. ---- to learn about human origins and evolution, the physical anthropologist studies fossil remains and observes the behavior of other primates.
(A) Because trying
(B) Do they try
(C) There is trying
(D) In trying
10. ---- where the American craft movement seems to have flourished most vigorously, partly through its association with the Prairie School of Architecture.
(A) Was the Midwest
(B) The Midwest as
(C) It was the Midwest
(D) The Midwest being
11. ---- as taste is really a composite sense made up of both taste and smell.
(A)To which we refer
(B)What do we refer to
(C)That we refer to it
(D) What we refer to
12. Lorraine Hansberry's play A Raisin in the Sun was ---- to be produced on Broadway.
(A) the first drama that all African American woman
(B)an African American woman whose first drama
(C)an African American woman's drama that first
(D) the first drama by an African American woman
13. When changes in the tilt of the Earth relative to the Sun shift the location of South America's warmest zone,---- with it.
(A) the rains go
(B) as go the rains
(C)which the rains to go
(D) and the rains going

14. The United States government shares governmental powers with the states under the federal system.---- by the United States Constitution.

- (A) established it
- (B) which established
- (C) and established
- (D) established

15. A challenging new area in inorganic chemistry is ---- the role of transition metals in the biochemical catalysts called enzymes.

- (A) that of understanding
- (B) to have understanding
- (C) the understanding
- (D) understanding that

B) Find the wrong option in the following sentences.

16. The hermit crab, a crustacean that uses an empty shell as a portable refuge to cover its soft abdomen, changes shells as grows.

17. In the mid-1960's many artists began to working outdoors on a large scale, making the landscape rather than the studio their arena.

18. Electoral politics in the United States has been dominated by two political parties since the administer of George Washington.

19. Art Deco, a style of design popular in the 1920's and 1930's, was used primarily in furniture, jewel, textiles, and interior decoration.

20. Initially introduced in 1852, the gyroscope consists a spinning device, usually in the form of a wheel, that exhibits strong angular momentum.

21. The membrane surrounding a single-celled animal or plant or any individual cell in a multicellular organism is important in the respiratory and nutritionally processes of that cell.

22. In the nineteenth century, moving from crowded Britain to relatively sparsely populated North America were seen by many British as an act of patriotism.

23. The Fourth Amendment to the Constitution of the United States regulates the right of the government to search a citizen's personal and property.

24. The color and pageantry, keen rivalry, and high level of competition both contribute to the great worldwide interest in the Olympic Games.

25. Although have there been better singers and actresses than Ethel Waters, none typifies the rise from rags to riches more dramatically than she.

26. The college that became Harvard University, the oldest institution of higher learning at the United States, was founded in Cambridge, Massachusetts, in 1636.

27. In a eclipse of the Sun, the regions of umbra experience total eclipse and those of penumbra, partial eclipse.

28. Paleoanthropologists examine fossil remains of extinct primates, while physical anthropologists concern with ethnology study the behavior of primates in their natural settings.

29. Most ocean waves are generated by wind current that agitate the water's surface.

30. Some seeds are viable, or capable of growing into healthy plants, for only a few days after fall from the parent tree.

31. Statistics indicate that approximate every 22 years--within a range of 3 to 4 years--a major drought occurs in the United States.
32. The work of Sarah Oarne Jewet, care-nineteenth-century writer, reflects a concern in the alienating consequence, of condustrialization and urbanization.
33. Seismic waves generated by an earthquake or large explosion can be recorded thousands of kilometer from their source.
34. After the United States became independent, the cure of more fertile lands drew steadily New Englanders into the Ohio Valley and the British colony of Upper Canada.
35. Found in all oceans the various species of electric rays use the charge they can generate for both stunning prey or warding off predators.
36. Barium is a soft, heavy, silvery white metallic element that readily reacts with another elements to form useful compounds.
37. Among the most complex crystals are that of silicon dioxide, which has seven different structures at various temperatures and pressures, the most common being quartz.
38. Animals have to cope with and control physical and chemical processes that do not necessarily act to benefit of the animal.
39. By 1810 the 23 towns of Hampshire County, Massachusetts, had reached a remarkable uniform of economic development as well as population density.
40. With more than half the world's annual yield of 50 million tons of soy beans, an important source of protein, is grown in the United States.