Effects of Textual Enhancement vs. Input Flood on Learning Restrictive Relative Clauses and *Wh*-Questions by Iranian Intermediate EFL Learners

Leila Nikbakht

MA Student, Department of English, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran

Mehdi Vaez-Dalili *

Assistant Professor, Department of English, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran

Abstract

This study aimed to investigate the impact of using textual enhancement (TE) and input flood (IF) on learning restrictive relative clauses and *wh*-questions by Iranian Intermediate EFL learners. To this end, 60 intermediate EFL learners studying English at a language institutes were selected based on their performance on Oxford Quick Placement Test (OQPT), and were then divided into two groups. A pretest-posttest design was used in this study, and the instruments employed included the OQPT, a pretest, and a posttest. In the TE group, the participants received sentences in which the restrictive relative clauses and *wh*-questions were textually enhanced through boldfacing. In the second group, the target structures were taught through the IF technique. Both groups received the treatments in 10 sessions. To analyze the data, a set of paired- and independent-samples t-tests were run to respectively explore the statistically significant differences between pre-test and posttest scores and differences in the scores of the two groups. The obtained results revealed that both experimental groups benefited from the TE and IF techniques in learning restrictive relative clauses and *wh*-questions. Moreover, TE and IF had similar effects on learning relative clauses by the learners, but they had different effects on learning *wh*-questions, with TE having a greater effect on learning *wh*-questions than IF. The findings of the study offer some useful implications for L2 learners, teachers, material developers, and test designers.
Keywords: textual enhancement, input flood, restrictive relative clause, *wh*-question

INTRODUCTION

An important source of learning for L2 learners is input. Input can be defined as the language "that learners hear or see to which they attend for its propositional content (message)" (Van Patten, 1996, p. 10). According to Krashen's (1981) input hypothesis, being exposed to large amounts of comprehensible input (i+1) is essential for second language acquisition. Various meaning-based approaches like immersion programs, the Natural Approach, Communicative Language Teaching (CLT) and Content-based Language Teaching (CBLT) emerged based on the insights provided by the input hypothesis.

---

* Correspondence: Mehdi Vaez-Dalili, Email: mvaezdalili@yahoo.com

Early input-based approaches led to an increase in the L2 learners' fluency at the expense of their accuracy since all features in the input are not noticeable in natural circumstance. As a result, novel proposals were provided in order to manipulate input and make it easier for learners to understand (Ellis, 1999). Suggestions have been made to help learners focus on features of input which are not noticeable under natural situation (Nassaji & Fotos, 2011; Vaez-Dalili, 2011). As an example, input enhancement during communicative activities was adopted as a proactive way to improve students' *noticing* of a particular grammatical form in a given context. Schmidt (1993) claimed "that part of input that the learner notices is called intake" (p.130). Many SLA researchers and practitioners contend that intake is achieved if learners recognize what is in the input (Schmidt, 1990, 1993; Tomlin & Vila, 1994).

Sharwood-Smith (1991, 1993) stated that input enhancement is a technique in which input is made more noticeable to learners. He suggested input enhancement of linguistic features facilitates directing L2 learners' attention to those forms. Textual enhancement (TE) as a type of input enhancement involves manipulating certain features of input by different techniques such as bold facing, italicizing, shadowing, increasing font size or other written manipulation of the target forms to direct the learners' attention to the linguistic features and make them more salient (Doughty & Williams, 1998; Wong, 2005). Another type of input enhancement which involves preparation of frequent examples of target structures in the input is called Input Flood (IF) (Trahey & White, 1993). Input Flood involves frequent exposure to target grammatical forms, augmenting their saliency and increasing their chance of being noticed (Schmidt, 1990; Sharwood-Smith, 1993).

Based on classroom experiences restrictive relative clauses and *wh*-questions are two problematic structures for Iranian EFL learners. The present study can contribute to input-based instruction by examining the effect of textual enhancement (TE) and input flood (IF) on Iranian intermediate EFL learners' knowledge of restrictive relative clauses and *wh*-questions.

LITERATURE REVIEW

Studies conducted on textual enhancement

Many studies have been conducted to see whether visual enhancement techniques are effective to draw learners' attention to target forms but the results are mixed depending on combination of the techniques given. Shook (1994) carried out a study measuring the effects of textual enhancement on the acquisition of the Spanish present perfect tense and relative pronouns (que/quien). The first year and second year English L1 university learners of Spanish participated in this study. They were divided into three groups: the first group received the passages without enhancement; the second group was exposed to the passages with textual enhancement, and the third group read the enhanced passage plus a focus on form. A pre- and posttest design was applied and the assessment procedures were a multiple-choice and a cloze test. The results of the study indicated that the two groups that received the enhanced texts outperformed the group that received the unenhanced texts on both tests.

Jourdenais et al. (1995) examined the impact of textual enhancement (underline, bold, shadow and different fonts) of preterit and imperfect tense. Their participants were English native learners of Spanish. Instruments used in this study were think-aloud protocols and a written task. Results revealed that the participants who received treatment showed an improvement in performance over that of the control group by reporting more episodes including the target forms.

Leow (2001), in another study on the effect of textual enhancement in L2 reading, selected 74 adults Spanish learners. The target form used in this study was polite/ formal imperative. A multiple-choice recognition task was designed in order to measure the participants' intake of the target form. He found that textual enhancement was ineffective on the comprehension of the text. What he came up with was related to the issue of TE and the prior knowledge. He realized that the level of awareness might have been related to the depth of attention and processing.

Lee (2007) studied the relationship between textual enhancement and topic familiarity on the one hand and acquisition and comprehension of passive voice on the other hand. Participants in this study were 259 high school students. He tried to measure his learners' acquisition and comprehension of passive voice. The texts applied in this study were different in terms of the way the target forms were typographically enhanced and also the degree of familiarity of the content. He came to the conclusion that textual enhancement was effective on the acquisition and comprehension of the target forms.

Simard (2009) examined the impact of different formats of textual enhancement on learners' intake of plural markers in English as a second language. The subjects in this study were grade eight native speakers of French. Seven experimental groups received different textual enhancement versions of the same text. An unenhanced version of the same text was used for the control group. A multiple-choice recognition test and an information transfer test were applied. The results indicated positive impacts for textual enhancement. Different formats of textual enhancement had different effects on learners' intake.

Vaez-Dalili, Ketabi, Kassaian, and EslamiRasekh (2011) conducted a study to examine the impact of textual enhancement and rule explanation on system learning of English dative alternation. The participants of this study were 64 lower-intermediate L2 learners. Researchers divided the subjects to two groups: one group known as textual enhancement group (TEG, n=32) and the other group called the rule-oriented group (ROG, n=32). They used a pre- and posttest design, employing a grammaticality judgment test. The results of their study showed that the ROG learners outperformed the TEG learners.

Nahavandi and Mukundan (2013) evaluated the effect of textual enhancement and explicit rule presentation on Iranian elementary EFL learners' intake of simple past tense. Nighty-three Iranian EFL learners were randomly assigned to three groups: a control group, a textual enhancement group, and a 'textual enhancement plus explicit rule presentation' group. All participants were given 3 reading texts and comprehension questions to complete. For participants in groups Participants were given three reading

texts with comprehension questions to complete. The input was enhanced through bold-typing for participants in the two experimental groups. They found that there was a significant difference among the pretest, posttest, and delayed posttests of the three groups. 'Textual enhancement + rule presentation' group significantly performed the other two groups, and the textual enhancement group outperformed the control group.

Studies conducted on input flood

Studies examining the effectiveness of input flood have shown varying results, from positive and facilitative effects to limited and even no effects. Trahey and White (1993) analyzed the impacts of input flood. The selected target feature in their study was adverb placement in French. Learners were provided with two weeks of input flood tasks that included frequent instances of adverb placement. They discovered that the input flood assisted learners to learn the new form but had limited effect on empowering them to recognize errors in the target language.

Williams and Evans (1998) evaluated the effects of input flood on the acquisition of participial adjectives and possessive in English. Adults of different first languages, who were enrolled in an intermediate university-level ESL composition class, took part in this study. They were assigned into three instruction treatments: input flood only, input flood plus explicit instruction on the target structures, and a control group. They used a pre- and posttest procedure with a grammaticality judgment test, a picture-based sentence completion test, a sentence completion test, and a picture narration test. The findings were mixed. The input flood plus explicit instruction was the most effective combination in the case of the participial adjective forms. There were no significant differences between the two groups in the case of the passives.

Reinders and Ellis (2009) studied the acquisition of negative adverbials with subject-verb inversion. Participants were ESL learners and were divided to two groups: an enriched condition (tasks flooded with the target feature), and an enhanced condition where the target feature had been enhanced. In order to assess students' performance a grammaticality judgment test was designed. The findings revealed no difference in noticing in the input flood and input enhancement groups.

Hernández (2011) investigated the impact of explicit instruction (EI) and input flood (IF) vs. input flood (IF) alone on learners' use of discourse markers to narrate a past event. Nineteen undergraduates Spanish learners participated were divided into three groups: EI + IF group, the IF group, or the control group. Students received four hours of instruction during a two-week treatment period. Results of a speaking task administered as a pre-test, immediate post-test, and delayed post-test showed that both treatments had a positive effect on students' use of discourse markers, but explicit instruction (EI) combined with input flood (IF) was more beneficial than input flood (IF) alone in improving students' use of discourse markers on the post-test speaking task.

Hamed-Mahvelati and Mukundan (2012) investigated the role of cognitive style (field-dependence vs. field independence) in the collocational knowledge development of Iranian EFL learners by input flood treatment. Sixty-four upper-intermediate learners with the same level of language proficiency were selected to participate in this study.

They were assigned into the experimental and control group. The results of the data indicated that the participants in the field-independent group benefited more from the input flood technique.

Zyzik and Marque's Pascual (2012) conducted a study measuring the impact of instruction on L2 learners' ability to recognize and produce differential object marking in Spanish. Subjects were English-speaking learners and were divided to one of three groups: an input flood group, an enhanced input flood group, and an explicit grammar group. Researcher used three written tasks to assess learners' performance: a grammatical preference task, a discourse length narrative task, and a cued sentence production task. The findings from this study showed a noticeable advantage for the explicit grammar group on the preference task, and the cued sentence production task compared to the other two groups. The remaining two groups evinced little progress after the treatment, but with no significant differences between them.

The present study departs from previous studies in the literature in that restrictive relative clause and *wh*-questions are selected as target structures to be taught through textual enhancement and input flood techniques. The comparative effect of these two techniques is predicted to be of interest to both SLA researchers and practitioners, suggesting how the two different instructional techniques affect the processing and acquisition of these two structures. Based on this, the study intended to answer the following research questions:

1   Does textual enhancement have a significant effect on learning restrictive relative clauses by Iranian intermediate EFL learners?

2   Does input flood have a significant effect on learning restrictive relative clauses by Iranian intermediate EFL learners?

3   Does textual enhancement have a significant effect on learning *wh*-questions by Iranian intermediate EFL learners?

4   Does input flood have a significant effect on learning *wh*-questions by Iranian intermediate EFL learners?

5   Is there a significant difference between the effect of textual enhancement and input flood on learning restrictive relative clauses by Iranian intermediate EFL learners?

6   Is there a significant difference between the effect of textual enhancement and input flood on learning *wh*-questions by Iranian intermediate EFL learners?

METHOD

Research design

The present study was a quantitative, quasi-experimental research, with a pretest/post-test design. The dependent variable of the study was the L2 learners scores on the

posttest, and the independent variable was the type of input enhancement technique (i.e. textual enhancement (TE) and input flood techniques (IF)).

Participants

From a population of 80 Iranian Intermediate EFL learners studying English in a language institute in Shahreza, Isfahan, Iran, 60 participants were selected and placed in two experimental groups (i.e. textual enhancement (TE) and input flood (IF) group), each containing 30 students. Their age ranged between 15 and 23 years old. According to their class level in the institutes and based on their scores from their previous term their English proficiency level was intermediate. However, before launching the study, in order to make sure that the participants were at the same level, they were given the Oxford Quick Placement Test (OQPT).

Treatment material

The TE and IF groups were exposed to relevant instructional materials in 10 sessions. Each session, the TE group were exposed to 9 textually enhanced restrictive relative clauses and 9 textually enhanced *wh*-questions, involving all types of *wh*-elements (i.e. *who, whom, what, whose, where, when, which, how*, and *why*). The following examples indicate how TE was opertionalized through boldfacing in restrictive relative clauses and *wh*-questions in the first session of the treatment:

- **Restrictive Relative Clauses**
1. An architect is someone **who** designs buildings.
2. We wonder **what** can happen to the boy.
3. The man **whom** the judge is talking to at the moment is a very famous lawyer.
4. The restaurant **where** we had dinner was near the airport.
5. The day **when** you saw me I was feeling sick.
6. The bike **which** I loved was stolen.
7. The house **whose** roof is old belongs to me.
8. The man realized **how** he should use the tool.
9. This is the reason **why** I never call her.

- **WH-Questions**
1. **Who** will buy some new shoes tomorrow?
2. **What** do we wear on our feet?
3. **Whom** do they wish to see?
4. **Where** did he meet the doctor?
5. **When** do people eat breakfast?
6. **Which** river is longer, the Nile or the Amazon?
7. **Whose** father is in the Army?
8. **How** do you usually go to school?
9. **Why** did John go to the post office?

In the IF group, the same sentences used in the TE group were utilized. The grammatical structures were not boldfaced but they frequently occurred in the example sentences. The following examples represent the input flood technique in restrictive relative clauses and *wh*-questions in the first session of the treatment:

- **Restrictive Relative Clauses**
1. An architect is someone who designs buildings.
2. We wonder what can happen to the boy.
3. The man whom the judge is talking to at the moment is a very famous lawyer.
4. The restaurant where we had dinner was near the airport.
5. The day when you saw me I was feeling sick.
6. The bike which I loved was stolen.
7. The house whose roof is old belongs to me.
8. The man realized how he should use the tool.
9. This is the reason why I never call her.

- **WH-Questions**
1. Who will buy some new shoes tomorrow?
2. What do we wear on our feet?
3. Whom do they wish to see?
4. Where did he meet the doctor?
5. When do people eat breakfast?
6. Which river is longer, the Nile or the Amazon?
7. Whose father is in the Army?
8. How do you usually go to school?
9. Why did John go to the post office?

Data collection instruments

Oxford Quick Placement Test (OQPT)

This study utilized the first version of Oxford Quick Placement Test (OQPT) to make sure that all the participants were at the same level of proficiency. The participants were asked to do this 60-item test in 30 minutes. According to the rubric of the OQPT for the score bands, scores that fall between 0 to 29 are taken to be at the elementary level, scores between 30 and 47 are considered to be at the intermediate level, and scores ranging between 48 and 60 represent advanced proficiency level.

Pretest

The pretest consisted of two sections, containing 32 items for measuring the learners' knowledge of restrictive relative clauses (i.e. a 16-item fill-in-the-blank test and a 16-item error correction task) and 32 items for assessing the learners' knowledge of *wh*-questions (i.e. a 16-item question formation and a 16-item fill-in-the-blank test). Each item was assigned a score of one if it was answered correctly; hence a total score of 32 for each section of the pretest. The pre-tests were administered to make sure that participants of both groups had the same level of knowledge of the target structures before the treatment.

In order to establish the validity of the two tests, they were given to an ELT and a language testing expert teaching at the university level. They confirmed that the two sections of the pre-test had content validity. The reliability of the two sections of the pre-test were measured by Cranach's α. The reliability of the test for measuring the learners'

knowledge of restrictive relative clauses and *wh*-questions were respectively 0.90 and .87, showing that the reliability of both sections of the test were high enough for the purpose of the study.

Post-test

Another instrument applied in the present study was a post-test exactly identical to the pretest, with two sections and the same number of items. The two sections of the test were conducted at the end of instruction period to determine the acquisition of the target structures by the participants. The same procedures as the pretest were followed to make sure about reliability and validity of the post-test. The results gained from the two sections of the post-test were used to show any significant differences in the acquisition of restrictive relative clauses and *wh*-questions by the TE and IF groups.

Procedure

The first step was administering the Oxford Quick Placement Test (OQPT) to an initial cohort of 80 Iranian EFL learners to establish the homogeneity of the participants. From this population, 60 students fell within the score band for intermediate students as required by the rubric of OQPT. Then, they were randomly divided into two groups: textual enhancement (TE, n = 30), and the input flood (IF, n= 30). Before the treatment, the participants of the two groups were administered a pretest, including questions for measuring the learners' knowledge of restrictive relative clauses and questions for *wh*-questions. Then, the learners in the two groups were exposed to relevant treatment materials in 10 sessions. After the treatment period, the participants were administered a post-test, which was identical to the pretest. This test was intended to measure the participants' possibly increased grasp of restrictive relative clauses and *wh*-questions through the TE and IF techniques after the treatment period.

RESULTS

Research question 1

The first research question examined if textual enhancement (TE) had a significant effect on learning restrictive relative clauses by Iranian intermediate EFL learners. The results of the descriptive statistics are shown in Table 1 below:

Table 1. Descriptive Statistics for the Pretest and Posttest Scores of the Textual Enhancement (TE) Group on Restrictive Relative Clauses

	N	Mean	Std. Deviation
RC_pre	30	19.76	4.10
RC_post	30	24.73	3.82

A paired-samples t-test was used to compare the pre- and post-test scores of the TE group on restrictive relative clauses (Table 2). There is a statistically significant increase in students' scores from the pretest (M= 19.76, SD= 4.10) to the posttest (M= 24.73, SD =

3.82), t(29) = 7.01, p< .05 (two-tailed), suggesting that TE had a significant effect on learning restrictive relative clauses.

Table 2. Paired-Samples T-Test for Comparing the Pretest and Posttest Scores of the Textual Enhancement (TE) Group on Restrictive Relative Clauses

| | Paired Differences | | | | | | | |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
				Lower	Upper			
Pretest-Posttest	20.50	3.67	.30	-2.39	-1.14	7.01	29	.00

Research question 2

The second research question addressed if input flood (IF) had a significant effect on learning restrictive relative clauses by Iranian intermediate EFL learners. The results of the descriptive statistics are shown in Table 3 in the following:

Table 3. Descriptive Statistics for the Pretest and Posttest Scores of the Input Flood (IF) Group on Restrictive Relative Clauses

	N	Mean	Std. Deviation
RC_pre	30	19.46	4.09
RC_post	30	23.86	3.65

As shown in Table 4, a paired-samples t-test was used to compare the pre- and post-test scores of the IF group on restrictive relative clauses. There is a statistically significant increase in students' scores from the pretest (M= 19.46, SD= 4.09) to the posttest (M= 23.86, SD = 3.65), t(29) = 7.01, p< .05 (two-tailed), suggesting that IF had a significant effect on learning restrictive relative clauses.

Table 4. Paired-Samples T-Test for Comparing the Pretest and Posttest Scores of the Input Flood (IF) Group on Restrictive Relative Clauses

| | Paired Differences | | | | | | | |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
				Lower	Upper			
Pretest-Posttest	19.48	3.87	.30	-2.64	-1.25	7.24	29	.00

Research question 3

The third research question investigated whether textual enhancement (TE) had a significant effect on learning *wh*-questions by Iranian intermediate EFL learners. The results of the descriptive statistics are shown in Table 5 in the following:

Table 5. Descriptive Statistics for the Pretest and Posttest Scores of the Textual Enhancement (TE) Group on *Wh*-Questions

	N	Mean	Std. Deviation
RC_pre	30	20.47	4.17
RC_post	30	29.07	2.60

A paired-samples t-test was used to compare the pre- and post-test scores of the TE group on *wh*-questions (Table 6). There is a statistically significant increase in students' scores from the pretest (M= 20.47, SD= 4.17) to the posttest (M= 29.07, SD = 2.60), t(29) = 7.01, p< .05 (two-tailed), indicating that TE had a significant effect on learning *wh*-questions by the EFL learners.

Table 6. Paired-Samples T-Test for Comparing the Pretest and Posttest Scores of the Textual Enhancement (TE) Group on *Wh*-Questions

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pretest-Posttest	25.18	3.82	.44	-1.64	-2.35	10.49	29	.00

Research question 4

The fourth research question explored whether input flood (IF) had a significant effect on learning *wh*-questions by Iranian intermediate EFL learners. The results of the descriptive statistics are shown in Table 7 below:

Table 7. Descriptive Statistics for the Pretest and Posttest Scores of the Input Flood (IF) Group on *Wh*-Questions

	N	Mean	Std. Deviation
RC_pre	30	21.03	4.09
RC_post	30	26.17	3.82

In order to compare the pretest and post-test scores of the IF group on *wh*-questions, a paired-samples t-test was used. As illustrated in Table 8, there is a statistically significant increase in students' scores from the pretest (M= 21.03, SD= 4.09) to the posttest (M= 26.17, SD = 3.82), t(29) = 9.66, p< .05 (two-tailed), indicating that IF had a significant effect on learning *wh*-questions by the learners.

Table 8. Paired-Samples T-Test for Comparing the Pretest and Posttest Scores of the Input Flood (IF) Group on *Wh*-Questions

				95% Confidence Interval of the Difference				Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pretest-Posttest	25.18	3.82	.44	-1.64	-2.35	9.66	29	.00

Research question 5

The fifth research question examined if there was a significant difference between the effect of textual enhancement (TE) and input flood (IF) on learning restrictive relative clauses by Iranian intermediate EFL learners. The results of the relevant descriptive statistics are shown in Table 9:

Table 9. Descriptive Statistics for the Posttest Scores of the Textual Enhancement (TE) and Input Flood (IF) Groups on Restrictive Relative Clauses

Group	N	Mean	Std. Deviation
TE	30	24.76	3.82
IF	30	23.86	3.65
Total	60	24.31	3.73

An independent-samples t-test was employed in order to compare the post-test scores of the TE and IF groups on restrictive relative clauses. As given in Table 10, there is no statistically significant difference between the scores in the TE group (M= 24.76, SD= 3.82) and the IF group (M= 23.86, SD = 3.73), t(58) = .35, p< .05 (two-tailed), indicating that TE and IF had relatively similar effects on learning relative clauses by the learners.

Table 10. Independent Samples T-Test for Comparing the Posttest Scores of the Textual Enhancement (TE) and Input Flood (IF) Groups on Restrictive Relative Clauses

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	5.07	.35	.68	58	.00	.93	.96	1.03	2.83
Equal variances not assumed			.68	57.99	.00	.93	.96	1.03	2.83

Research question 6

The sixth research question addressed if there was a significant difference between the effect of textual enhancement (TE) and input flood (IF) on learning *wh*-questions by Iranian intermediate EFL learners. The results of the relevant descriptive statistics are shown in Table 11:

Table 11. Descriptive Statistics for the Posttest Scores of the Textual Enhancement (TE) and Input Flood (IF) Groups on *Wh*-Questions

Group	N	Mean	Std. Deviation
TE	30	29.06	2.60
IF	30	26.17	3.82
Total	60	27.61	3.56

In order to compare the post-test scores of the TE and IF groups on *wh*-questions, an independent-samples t-test was run. As illustrated in Table 12 in the following, there is a statistically significant difference between the scores in the TE group (M= 29.06, SD= 2.60) and the IF group (M= 26.17, SD = 3.82), t(58) = .00, p< .05 (two-tailed), indicating that TE and IF had different effects on learning *wh*-questions by Iranian intermediate EFL learners, with TE having a greater effect on learning *wh*-questions than IF.

Table 12. Independent Samples T-Test for Comparing the Posttest Scores of the Textual Enhancement (TE) and Input Flood (IF) Groups on *Wh*-Questions

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	4.35	.00	3.43	58	.00	2.91	.84	1.21	4.58
Equal variances not assumed			3.43	57.99	.00	2.91	.84	1.21	4.58

DISCUSSION AND CONCLUSIONS

This study aimed to investigate the impact of using textual enhancement (TE) and input flood (IF) on learning restrictive relative clauses and *wh*-questions by Iranian Intermediate EFL learners. The results revealed that both experimental groups benefited from the TE and IF techniques in learning restrictive relative clauses and *wh*-questions.

Additionally, TE and IF had similar effects on learning relative clauses by the learners. However, TE and IF had different effects on learning *wh*-questions, with TE having a greater effect on learning *wh*-questions than IF.

The plethora of studies conducted to date to investigate the effects of textual enhancement (TE) have yielded quite mixed results. Whereas in a majority of the studies, TE proves to be of no benefit (Izumi, 2002; Jourdenais, 1998; Leow, 1997, 2001; Leow et al., 2003; Overstreet, 1998; Radwan, 2005; Vaez-Dalili et al., 2011; Wong, 2003), some studies show positive effects for this technique (Doughty, 1991; Jourdenais et al., 1995; Lee, 2007; Nahavandi & Mukundan, 2013; Shook, 1994; Simrad, 2009). The results of the present study disconfirm the former group of studies and confirm the latter group.

Studies examining the effectiveness of input flood (IF) technique have also shown varying results. Whereas some studies (Trahey & White, 1993; Williams & Evans, 1998; Zyzik & Marque's Pascual, 2012) consider limited effect for this technique, others (Hamed-Mahvelati & Mukundan, 2012; Reinders & Ellis, 2009) maintain that IF is as effective as the TE technique. The results of the present study are interestingly quite mixed in that TE and IF had similar effects on learning restrictive relative clauses but TE had a greater effect on learning *wh*-questions than IF. The result is most probably due to the different difficulty level of restrictive relative clauses and *wh*-questions.

The study has some pedagogical implications and applications in the realm of teaching and learning grammar, especially for syllabus designers, instructors, and learners. The findings of the study may be helpful for syllabus designers in that they can design grammatical activities and tasks in which IF and TE techniques are applied. The findings could also have important implications for EFL teachers, giving them insight as to the importance of the TE and IF techniques for teaching grammar rules. Applying TE and IF could also invite EFL learners to focus on grammar points and find the connections between their forms and meanings in order to enhance their grammatical knowledge.

This study suffered from a number of deficiencies. Since the participants were not randomly selected, any further generalization from this study should be done with caution. In addition, due to the shortage of time and monetary constraints to access the target population, which is all intermediate EFL learners in language institutes of Iran, it was not feasible to select those EFL learners from among all language institutes in Iran. Moreover, there was the problem of inability to embrace variables such as personality, learning style, motivation, etc.; hence, individual dimensions of language learning were not considered in the study. This study did not also distinguish between male and female FFL learners to see how the two genders were different in their learning of the target structures.

To gain deeper insights, it is recommended that future research be conducted on the effects of TE and IF techniques on learning relative clauses and *wh*-questions in a much wider population. As in this study only intermediate EFL learners were examined, other English proficiency levels could be included for the purpose of generalization. Also, in order to find how male and female EFL learners differ in their learning of English restrictive relative clauses and *wh*-questions through the TE and IF techniques, it is

suggested that gender be included in future studies. It is also recommended to investigate the techniques examined in this study and other ones such as processing instruction (PI) and compare them in learning restrictive relative clauses and *wh*-questions. More research on the effect of different kinds of TE such as underlining, italicizing, capitalizing, and bolding, or a combination of these techniques, are suggested too.

REFERENCES

Doughty, C., (1991). Second language instruction does make a difference. *Studies in Second Language Acquisition*, *13*, 431-469.

Doughty, C., & Williams, J. (1998). Pedagogical choices in focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 197–261). Cambridge: Cambridge University Press.

Ellis, R., & Fotos, S. (Eds.) (1999). *Learning a second language through interaction*. Philadelphia, PA: John Benjamins.

Hamed-Mahvelati, E., & Mukundan, J. (2012). The role of cognitive style in the collocational knowledge development of Iranian EFL learners through input flood treatment. *English Language Teaching, 5*(10), 105-117.

Hernández, T. A. (2011). Re-examining the role of explicit instruction and input flood on the acquisition of Spanish discourse markers. *Language Teaching Research, 15*(2), 159-182.

Izumi, S., (2002). Output, input enhancement, and the noticing hypothesis. *Studies in Second Language Acquisition*, *24*, 541-577.

Jourdenais, R., (1998). The effects of textual enhancement on the acquisition of the Spanish preterit and imperfect. Unpublished Doctoral Dissertation, Georgetown University.

Jourdenais, R., Ota, M., Stauffer, S., Boyson, B., & Doughty, C. (1995). Does textual enhancement promote noticing? A think-aloud protocol analysis. In R. Schmidt (Ed.), *Attention and awareness in second language learning* (pp. 183-261): Technical Report No. 9. Honolulu: University of Hawaii, Second Language Teaching and Curriculum Center.

Krashen, S. (1981). *Second language acquisition and second language learning*. Oxford: Oxford University Press.

Lee, S. K. (2007). Effects of textual enhancement and topic familiarity on Korean EFL students' reading comprehension and learning of passive form. *Language learning, 57*(1), 87-118.

Leow, R. P. (1997). The effects of input enhancement and text length on adult L2 readers' comprehension and intake in second language acquisition. *Applied Language Learning*, *8*(2), 151-182.

Leow, R. P. (2001). Do learners notice enhanced forms while interacting with the L2? An online and offline study of the role of written input enhancement in L2 reading. *Hispania, 84*, 496-509.

Leow, R. P., Egi, T., Muaria Nuevo, A., & Y. C. Tsai (2003). The Role of Textual Enhancement and the Type of Linguistic Item in Adult L2 Learners' Comprehension and Intake. *Applied Language Learning*, *13*(2), 1-16.

Nahvandi, N, & Mukundan, J. (2013). The impact of textual input enhancement and explicit rule presentation on Iranian elementary EFL learners' intake of simple past tense. *English Language Teaching, 6*(1), 92-102.

Nassaji, H., & Fotos, S. (2011). *Teaching grammar in second language classrooms: integrating form-focused instruction in communicative context*. New York: Routledge.

Overstreet M. (1998). Text enhancement and content familiarity: The focus of learner attention. *Spanish Applied Linguistics, 2*, 229-258.

Radwan, A. A., (2005). The effectiveness of explicit attention to form in language learning. *System*, *33*(1), 69-87.

Reinders, H., & Ellis, R. (2009). The effects of two types of input on intake and the acquisition of implicit and explicit knowledge. In R. Ellis, S. Loewen, C. Elder, R. Erlam, J. Philp, & R. Reinders (Eds.), Implicit and explicit knowledge in second language learning, testing and teaching (pp. 282-302). Bristol: Multilingual Matters.

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

Schmidt, R. (1993). Awareness and second language acquisition. *Annual Review of Applied Linguistics*, *13*, 206–26.

Sharwood-Smith, M. (1991). Speaking to many minds: On the relevance of different types of language information for the L2 learner. *Second Language Research, 72*, 118–132 .

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

Shook, D. J. (1994). FL/L2 reading, grammatical information, and the input-to-intake phenomenon. *Applied Language Learning, 5*, 57-93.

Simard, D. (2009). Differential effects of textual enhancement formats on intake. *System, 37*, 124-135.

Tomlin, R., & Villa, V. (1994). Attention in cognitive science and second language acquisition. *Studies in Second Language Acquisition*, *16*, 183-202.

Trahey, M. & White, L. (1993). Positive evidence and preemption in the second language classroom. *Studies in Second Language Acquisition, 15*, 181-204.

Vaez-Dalili, M. (2011). On the integration of form and meaning in English language teaching (ELT): An overview of current pedagogical options. *Procedia – Social and Behavioral Sciences, 15,* 2117–2121.

Vaez-Dalili, M., Ketabi, S., Kassaian, Z. & Eslami-Rasekh, A. (2011). The effect of textual enhancement on system learning of English dative alternation*. World Applied Sciences Journal, 15*, 63-69.

VanPatten, B. (1996). *Input processing and grammar instruction in second language acquisition.* Norwood, NJ: Ablex.

Williams, J., & Evans, J. (1998). What kind of focus and on which forms? In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acqui*sition (pp. 139-155). Cambridge, MA: Cambridge University Press.

Wong, W., (2003). Textual Enhancement and Simplified Input: Effects on L2 Comprehension and Acquisition of Non-meaningful Grammatical Form. *Applied Language Learning*, *13*(2), 17-45.

Wong, W. (2005). *Input enhancement: Form theory and research to the classroom.* New York: McGraw-Hill.

Zyzik, E., & Marqués Pascual, L. (2012). Spanish differential object marking: An empirical study of implicit and explicit instruction. *Studies in Hispanic and Lusophone Linguistics, 12,* 387-421.