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THE EFFICACY OF INPUT-BASED INSTRUCTION IN PROMOTING THE ACQUISITION OF ENGLISH EMBEDDED QUESTIONS

Manoochehr Jafarigohar[1] --- Fatemeh Hemmati[2] --- Hassan Soleimani[3] --- Mehri Jalali[4†]

[1,2,3,4] *Department of TEFL and English Literature, Payame Noor University, Iran*

ABSTRACT

The goal of this study was to compare the possible effects of three types of input-based instruction on the acquisition of English "WH" embedded questions. The impact of these instructions was investigated on Van Patten's Sentence Location Principle. Participants were 105 university students in four intact classes who were randomly assigned to four conditions: processing instruction (PI), textual input enhancement (TE), consciousness-raising (C-R), and control. A quasi-experimental design with a pretest-treatment-posttest sequence was used and the participants' acquisition of the target structure was measured using a knowledge test including interpretation and production tasks at sentence level. The results showed that both PI and C-R instructions were effective in improving the learners' interpretation and production of the embedded questions and their effect was durable over a one month period; however, PI was superior to other instructions. Results also revealed that TE was only effective in improving interpretation of the target structure and did not have any positive impact on its production. This study provides further understanding of the effectiveness of providing learners with opportunities to focus on form and meaning in their L2.

Keywords: Consciousness-raising tasks, Form-focused instruction, Input-based instruction, Processing instruction, Sentence location principle, Textual enhancement.

Contribution/ Originality

This study is one of very few studies which have compared processing instruction with other input-based form-focused instructions with different degrees of explicitness in an EFL context.

† Corresponding author
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1. INTRODUCTION

One of the most interesting issues in Second Language Acquisition (SLA) is grammar, with conflicting views on how to teach it Celce-Murcia (1991). Since attention has a crucial role in language learning, much of SLA research has centered on investigating what methods or what kinds of activities lead learners' attention to specific linguistic features. Some studies in focus on form paradigm (Doughty, 2001; Wong, 2003) concluded that directing learners' attention to form during meaning-oriented activities facilitates acquisition of both form and meaning in an integrated way. Moreover, most of these studies have focused on the target forms explicitly or implicitly and have confirmed that explicit instruction is more effective than implicit one in teaching grammatical structures (Fotos and Ellis, 1991). In addition, it seems that all researchers are in agreement that no second language acquisition can happen without input. According to Van Patten and Cadierno (1993), instruction should alter how language learners perceive and process input instead of changing how learners produce output because input is more likely to become intake in this way. Ellis (1997) also argues that manipulation of input is more effective in integration of intake into learners' implicit/declarative knowledge and its subsequent acquisition. Hence, the present study looked into how different explicit and implicit input-based approaches namely processing instruction (PI), consciousness-raising tasks (C-R), and textual input enhancement (TE) vary in promoting acquisition of the embedded "WH" questions by Iranian EFL learners. Even though this study conducted in a foreign language setting, the terms acquisition and learning were used interchangeably because as stated by Ellis (2008), second language acquisition refers to the acquisition of any language after the acquisition of the mother tongue despite the role it plays in the community and conscious or subconscious processes involved in studying or picking it up.

1.1. Processing Instruction

Processing instruction (PI) is a new explicit form-focused instruction which was introduced to the world of second language acquisition by Van Patten (1996; 2007). He developed this type of instruction based on his Input Processing Model Van Patten (1996). According to this model, learners process input while they try to comprehend its message and use it to make form–meaning connections. This model offers a set of principles that explain the faulty strategies learners use to process L2 input. Sentence Location Principle is one of these principles according to which learners tend to process items in sentence initial position before those in final position and those in medial position (Van Patten, 1996). The evidence for this principle strongly affirms that initial position is the most favored processing position (Rosa and O'Neill, 1998). In fact, PI was developed to remove these faulty processing strategies. As VanPatten (2004) argues, PI is a new explicit instructional approach that tries to promote the creation of form-meaning connections by means of input-based activities that are task-essential in the sense that successful task completion requires connecting target forms and meanings in appropriate ways. Hence, PI aimed to improve the quality of the input received by learners so that the amount of intake would increase. According to Lee and Benati (2009), in comparison to output-based instructions, PI helps learners to develop their internal linguistic system and to intervene language processing at input level. As VanPatten (2004) argues, along with altering the faulty processing strategies learners use in task comprehension, PI

attempts to engage them in activities which have been manipulated to make language forms more salient. In this way, learners move toward more systematic processing instrument in order to acquire those forms.

Explicit grammatical explanation, information on processing strategies that may undesirably disturb learners' attention to the target linguistic feature during comprehension and structured input (SI) activities are three components of PI. Structured input activities are referential and affective input-based tasks that direct learners away from production. In these activities, input is manipulated in specific ways to force learners to rely on form to understand meaning (Neupane, 2009).

Studies on PI can be divided into different categories based on researchers' perspectives. One line of research has compared PI with traditional instruction (Benati *et al.*, 2008; VanPatten and Uludag, 2011). Despite different target structures used in these studies, their findings indicate that PI is more helpful than traditional instruction in teaching grammar because it has a straight effect on processing input by learners. Moreover, in most of the investigations reviewed in this line, traditional and PI groups performed almost the same on production tasks.

In another research paradigm, some other studies have compared PI with meaningful output-based instruction (Lee and Benati, 2007; Han, 2013). Results of these studies show that training via PI can transfer to output activities and PI is almost always superior to meaningful instruction in interpretation tasks. Moreover, other studies have focused on components of PI (Takimoto, 2007; Mardsen and Chen, 2011). Findings of many studies in this paradigm confirm that structured input activities are the most significant variable responsible for effectiveness of PI and can change learners' developing system and even their output. Also, they indicate these activities provide opportunities for learners to process linguistic features more efficiently and their positive effects have been proved in different languages, processing principles, and assessment tasks. Therefore, based on this classification, the need for conducting studies that compare PI with other input-based instructions especially those which are not so explicit is sensed.

1.2. Consciousness-Raising

As Wong (2003) states, the term consciousness-raising (C-R) commonly means increasing awareness about something. However, in SLA field, this term was introduced by Sharwood Smith (1985) for the first time. They defined it as "external attempts to draw L2 learners' attention to formal properties of a target language" (p. 14). As a grammar instruction approach, C-R may be attributed to the work of Fotos and Ellis (1991). They refer to C-R tasks as communicative activities that provide learners with grammatical problems to solve interactively and construct their own explicit grammar. These tasks are based on the theoretical underpinning that if learners know how a particular grammar structure works, they will be able to notice that structure in subsequent communicative input (Fotos, 1994). According to Sugiharto (2006), since awareness of specific grammatical structure at level of understanding is the main purpose these kinds of activities, learners are not required to produce them in communication spontaneously. As Ellis (1997) points out, C-R tasks have specific characteristics such as isolating specific linguistic features for focused attention, providing the data which illustrate them, and using intellectual effort by learners to understand and articulate the rule describing them. These tasks claimed to hold a middle-ground

position on the continuum of grammar instruction approaches which starts with Zero approaches (no need for instruction) and ends with traditional grammar-based approaches (explicit instruction).

Within the last two decades, some studies have supported the need for language learners to be exposed to explicit use of the language through consciousness-raising tasks (Fotos and Ellis, 1991; Mohamed's, 2004; Takimoto, 2012). Fotos and Ellis (1991) examined the effects of traditional instruction and C-R tasks on learning dative alternation by Japanese learners of English. Results revealed that both treatments had significant effect on improving the learners' scores on the immediate comprehension posttest. However, learners in the traditional instruction group were more successful in maintaining the significant effect of their instruction on delayed posttest. On the other hand, Mohamed's (2004) examined learners' perspectives of the effectiveness of deductive and inductive C-R tasks. The findings indicated that learners have no strong preference for a particular type of task over the other. They viewed the tasks to be useful in helping them to learn new knowledge about language. Takimoto (2012) compared the effects of C-R tasks with a more implicit approach namely input enhancement (IE) on the development of speech act of apology by Japanese university students. The results of the multiple-choice discourse completion task indicated that learners in the C-R group outperformed those in the IE group and the control group on both immediate and delayed posttests. As the literature reveals, since most of the investigations in this field have centered on certain linguistic features, the need for conducting more studies on different target forms is sensed. The main reason is that a C-R task which has been proved effective in helping the acquisition of one linguistic feature might not be effective when applied to other forms.

1.3. Textual Enhancement

Following the dissatisfaction with Krashen (1980) innatist model of SLA in promoting the accuracy of forms, Sharwood Smith (1991) proposed input enhancement as a theory-based approach created to draw L2 learners' attention to target linguistic features implicitly. Theoretically, this approach is grounded in models of SLA that consider noticing of L2 input as a requirement for its further processing. Textual Enhancement (TE) is an input enhancement technique used to expand the saliency of the new target form(s) and as Leow (1997) asserts, it tries to draw learners' attention to linguistic features through typographical cues such as underlining, boldfacing, italicizing, capitalizing, highlighting, and changing the size or the font of the letters.

Findings of the studies on textual enhancement are controversial (Jourdenais *et al.*, 1995; Leow, 1997; Hernandez, 2011). Some of these studies have failed to find superiority of TE over other implicit or explicit instructions. Leow (1997) examined the effects of underlining and boldfacing as two textual enhancement techniques on processing impersonal imperative forms of Spanish verbs. In order to measure the subjects' intake of the target form, a short-answer comprehension task and a multiple-choice recognition task were used. Findings rejected the effects of TE on both comprehension and intake. Moreover, the results of the study done by Leow *et al.* (2003) revealed that TE had no significant effect on the amount of reported noticing and intake of the Spanish present subjunctive or present perfect form. It also had no superiority over unenhanced input for learners' comprehension of the reading passage.

On the contrary, many findings have proved the effectiveness of input enhancement on

provoking noticing and acquisition of a particular linguistic feature (Shook, 1994; Jourdenais *et al.*, 1995; Berent *et al.*, 2008). Shook (1994) carried out an experimental study measuring the relative effects of TE on intake of Spanish present perfect and relative pronouns. He used multiple-choice recognition and fill in the blank production tasks to measure the learners' intake. The results showed that the experimental groups scored higher than the control group on both tests. Berent *et al.* (2008) also proved the positive effect of textual enhancement on noticing and learning of grammatical structures. Since results of the studies on textual input enhancement have been somewhat inconsistent, further research is called for to elucidate the efficacy of this type of instruction especially in comparison with other kinds of input-based instructions.

1.4. Research Questions

The current study attempted to answer the following questions:

1. Is there any significant difference among the study groups (PI, C-R, TE, CO) in acquisition of the English embedded questions as measured by interpretation tasks over time?
2. Is there any significant difference among study groups (PI, C-R, TE, CO) in acquisition of the English embedded questions as measured by production tasks over time?

2. METHOD

2.1. Participants

Participants in this study were 119 male and female Persian speaking students with the mean age of 24.5 who were selected from one university in Iran. They were members of four intact classes enrolled in the general English course. It is noteworthy that 14 students were removed from the data because of their different proficiency level compared to that of other participants (pre-intermediate) measured by administering Cambridge proficiency test (PET) or due to knowledge of the target structure assessed through administering the pretest. Consequently, the classes were randomly assigned to PI, C-R, TE, and control groups.

2.2. Target Structure

Referring to the availability of processing resources, VanPatten (2004) proposed the Sentence Location Principle in his input processing model. According to this principle, the degree of saliency of elements depends on their position in the sentence and the medial position is the least favored processing position. As a result, English embedded "WH" questions were selected as the target linguistic features in the present research since in Persian language there is no difference between direct and non-direct questions, hence most of the learners invert the place of auxiliary and subject after "WH" question word. The probable reason for this problem is the medial position that escapes from proper processing.

2.3. Instructional Materials

Processing instruction package used in the present investigation drew inspiration from the pen-and-paper instructional package used by Lee and VanPatten (2003). It consisted of non-

paradigmatic grammatical explanation about English embedded questions, information about the sentence location strategy, and structured input activities. In order to design these activities, four short stories including samples of the target structure which matched the participants' language proficiency level were selected. Since moving from sentences to connected discourse is one of the purposes of PI, the stories were divided into separate sentences which were presented in different structured input activities. In these activities, learners had to interpret the target structure and no practice activity involved production (see Appendix A).

Moreover, Mohamed's (2004) model of indirect consciousness-raising tasks was followed in designing the C-R tasks because of its frequency of citation in the related literature. The same stories used in the PI package were used again as language data in this package and it was tried to isolate the target structure for focused attention in a three-column table. It consisted of correct and incorrect examples of the target structure and participants were supposed to compare the samples and explain why some of the samples were incorrect. Then they were supposed to construct an explicit rule for the target structure (see Appendix B).

The instructional package used in the textual input enhancement group included the same stories used in the other instructional groups, however the samples of the target structure were bolded and underlined. Participants in this group first received the stories without any enhancement followed by some multiple choice reading comprehension questions. Then, they received the enhanced input and some interpretation questions. In this way, it was tried to prevent comprehension of the passages make any hindrance in paying attention to the enhanced parts (see Appendix C).

2.4. Instruments

To measure acquisition of the target structure, a knowledge test including an interpretation and a production subtest was developed in three parallel forms (A, B, C) which were used as pretest, immediate posttest, and delayed posttest. The interpretation test consisted of 20 mini dialogs in which participants had to pay attention to both form and meaning to choose the correct item that was interpretation of the dialog content. Moreover, 5 dialogs including the direct questions were added as distractors to increase the reliability of this test. Students received 1 point for each correct response and 0 point for each incorrect one.

The production subtest consisted of 13 items (3 items were dedicated to the distractors). The items were in form of mini dialogues and incomplete summaries. Learners were supposed to complete them by using the offered verbs and adding some more elements based on the contents of the dialogs. Raw scores were calculated by giving 1 point to a fully correct answer, 0.25 point for using each element correctly, and zero point if all of the elements were used incorrectly.

An evaluation questionnaire (Takimoto, 2007) was also administered as a supplement to this study to examine whether the objectives of the instructional treatments had been achieved and how the instruction could be improved for upcoming use. It consisted of three close-ended and three open-ended questions. Participants were requested to respond to these questions on a scale of 1–5 with 1= not at all, 2= relatively, 3= neither, nor, 4= yes, and 5= very interesting/difficult/clearly.

For open-ended questions, participants were supposed to write down the main points they learned in lessons, the things they liked and didn't like about the lessons.

All of the instructional packages and tests were reviewed by three Iranian EFL teachers. After the modifications suggested by them, they were also trialed on a sample of 20 students with characteristics similar to those of the actual participants which resulted in changing some of the ambiguous sentences. Moreover, in order to ensure the reliability of the tests, *Cronbach's alpha* test was run and the indexes were .84, .79, and .81 for different forms of the interpretation subtest (forms A, B, and C) and .88, .85, and .76 for forms A, B, and C of the production subtest.

2.5. Procedure

The study lasted for seven weeks including the time required for administering the assessment measures as well as the training sessions. The language proficiency test (Cambridge English: PET) was administered in the first session. The pretest was administered one week before the instructional treatment, the immediate posttest was administered in the last treatment session, and participants received the delayed posttest one month later. One week after the treatments, participants completed an evaluation questionnaire. Treatment took place over four class periods during which learners in each group were divided into small groups of four to five members to do the activities cooperatively. All groups also received implicit feedback in order to avoid providing them with incidental input including the target structure. In the control group instruction focused on development of reading comprehension skills with no reference to the embedded questions.

3. RESULTS

3.1. Results from the Interpretation Subtest

Results of a one-way *ANOVA* carried out on interpretation scores showed no significance difference among the mean scores of the groups regarding their ability to interpret English embedded questions before starting the treatment, F (3, 101) = 1.45, $p > .05$ (Table 1).

Table-1. Result of one-way ANOVA for interpretation pretest scores

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	6.75	3	2.25	1.45	.233
Within Groups	156.64	101	1.55		
Total	163.69	104			

Given this result, participants' pre-, immediate, and delayed post-test scores were analyzed using repeated measures *ANOVA* with one between-subjects factor (type of instruction) and one within-subjects factor (time). The results revealed significant main effects for type of instruction, F (3, 101) = 121.58, $p< .05$, time, F (2, 101) = 140.32, $p< .05$, and instruction × time, F (6, 202) = 65.64, $p< .05$ (Table 2). The effect size (eta squared) for the instruction × time interaction effect, the main effect for time, and the main effect for type of instruction were computed and results were $\eta^2 = 0.71$, $\eta^2 = 0.84$, and $\eta^2 = 0.78$ respectively indicated that the magnitudes of the differences were large enough to be really meaningful.

Table-2. Analysis of variance for interpretation subtest scores

Source	SS	df	MS	F	Sig
Between Subjects (Instruction)	518.01	3	172.67	121.58	.000
Within Subjects (Time)	1650.80	2	825.40	140.32	.000
Instruction × Time	773.43	6	128.90	65.64	.000

Results of a series of *Post-hoc Scheffe* tests revealed that: (1) the treatments had significant effects on interpretation of the target form by instructional groups compared to the control group, and (2) there were significant differences among the groups (PI > C-R TE > CO).The tests revealed that the PI had a significantly higher mean interpretation test score than the other groups on the immediate posttest compared to the pretest ($p < .05$) and on the delayed posttest compared to the immediate posttest ($p< .05$).

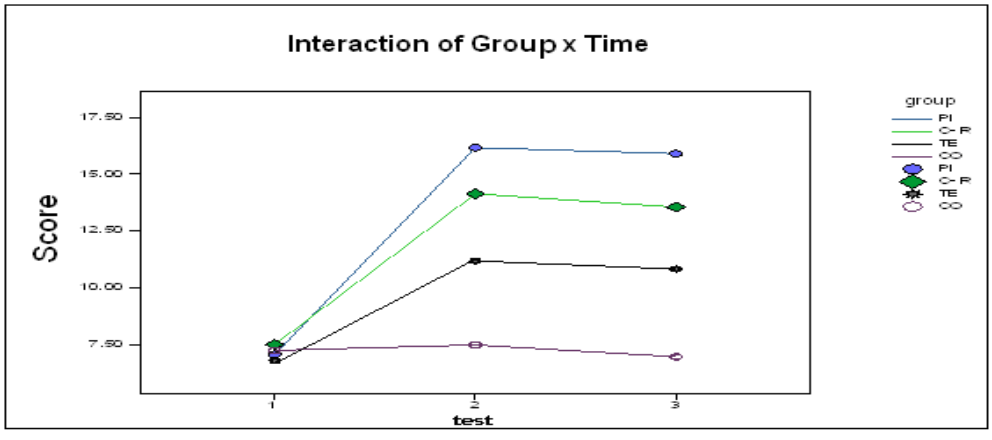

Figure-1. Interaction plot for instruction type and time for interpretation of the embedded "WH" questions

3.2. Results from the Production Subtest

Results of a one-way *ANOVA* performed on the pretest scores revealed no significant differences among the groups for production of the target structure, F (3, 101) = 1.14, p >.05 (Table 3). Then, the pretest, the immediate posttest, and the delayed posttest scores were

Table-3. Result of one-way ANOVA for production pretest scores

	SS	df	MS	F	Sig
Between Groups	4.42	3	1.47	1.14	.335
Within Groups	130.11	101	1.28		
Total	134.53	104			

Submitted to a repeated-measures *ANOVA* and results showed significant main effects for instruction, F (3, 101) = 64.42, p = .000, time F (2, 101) = 80.78, p = .000, and instruction × time F (6, 201) = 30.09, p = .000 (Table 4). The eta squared figures (.65, .62, and .64) also suggested considerable effect sizes for the results.

Table-4. Analysis of variance for production subtest scores

Source	SS	df	MS	F	Sig
Between Subjects (Instruction)	139.07	3	46.36	64.42	.000
Within Subjects (Time)	160.30	2	86.06	80.78	.000
Instruction × Time	179.12	6	29.85	30.09	.000

Moreover, results of *Post-hoc Scheffe* tests provided further support for the following contrasts: (1) the PI group performed significantly better than the other instructional groups on the immediate and the delayed posttests; (2) there were no statistically significant differences between the TE and the control group on the immediate (p = .074), and the delayed posttests (p = .085) and this shows that the effect of instruction was not significant for the TE group.

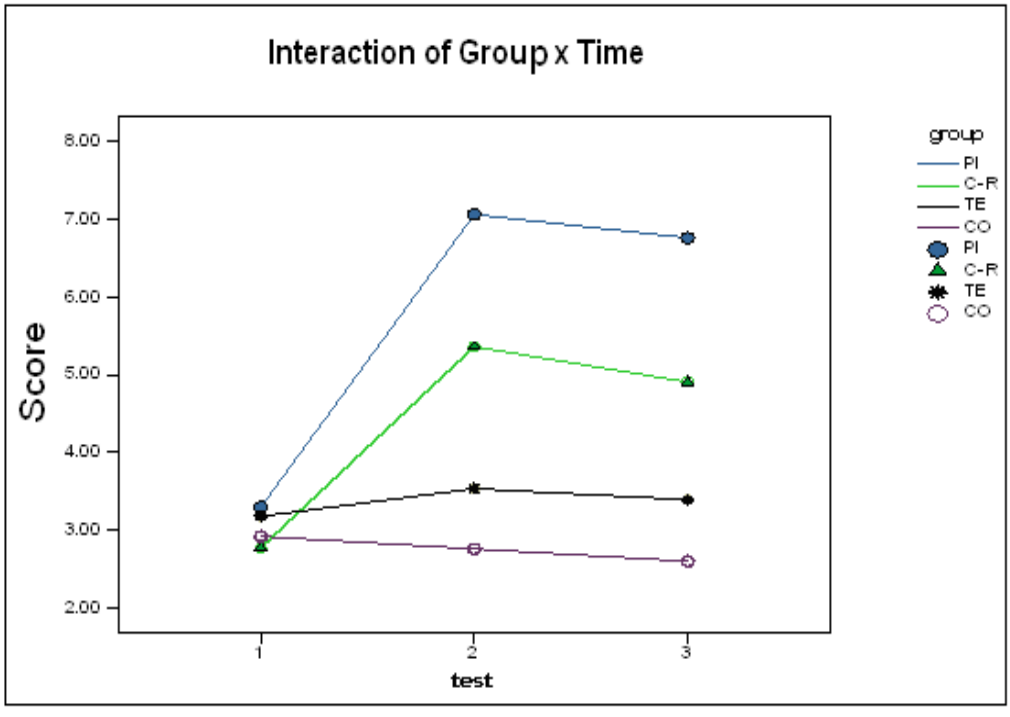

Figure-2. Interaction plot for instruction type and time for production of the embedded "WH" questions

3.3. Results from the Evaluation Questionnaire

Analysis of responses on this questionnaire offered insight into the participants' experience from a first-person, retrospective point of view. Table 5 summarizes responses on the close-ended questions (Q1–Q3) with the mean and standard deviation for each question and Table 6 shows the responses on the open ended questions (Q4–Q6).

Table-5. Results for closed-ended questionnaire items (Q1, Q2, Q3)

Questions	Statistics	PI	C-R	TE
Q1: Did you find the lessons interesting?	N	30	22	28
	Valid Missing	0	0	0
	Mean	4.13	3.04	1.67
	SD	1.27	1.32	1.15
Q2:Did you find the lesson difficult to follow?	N	30	22	28
	Valid Missing	0	0	0
	Mean	1. 86	3.31	3.82
	SD	1.33	1.28	1.36
Q3: Did you understand clearly how to use English embedded "WH" questions?	N	30	22	28
	Valid Missing	0	0	0
	Mean	4.05	3.90	3.17
	SD	1.28	1.37	1.27

Table-6. Results for open-ended questionnaire items (Q4, Q5, Q6)

Questions and reported contents	PI	C-R	TE
Q4: Write down the main points you learned in lessons including all main points	25 (83.3%)	16 (72.7%)	11 (39.2%)
Q5: Were there things you liked a lot about the lessons?	20 (66.6%)	9 (40.9 %)	7 (25%)
Learning the targeted structures	6 (20%)	12 (54.5 %)	20 (71.4%)
Interesting stories	4 (13.3%)	1 (4.5%)	1 (3.3%)
Other			
Q6: Were there things you did not like about the lessons?	7 (23.3%)	2 (9.09%)	3 (10.7%)
Monotonousness of lessons	12 (40%)	6 (27.2%)	5 (17.8%)
No output practices	8 (26.6%)	4 (18.18%)	6 (21.4%)
Little feedback	0 (0%)	8 (36.3%)	11 (39.2%)
Lack of explicit instruction	3 (10%)	2 (6.09%)	3 (10.7%)
Other			

As the results show, for the PI group, the lessons were very interesting (Q1: M= 4.13) and easy to follow (Q2: M= 1.86). The target structure was comprehensible (Q3: M= 4.00) as well. For the C-R group, the lessons were neither interesting nor boring (Q1: M= 3.04) and neither difficult nor easy (Q2: M= 3.31). Additionally, the target structure was comprehensible for this group (Q3: M= 3.90). For the TE group, the lessons were not interesting at all (Q1: M= 1.67) and they were neither difficult nor easy to follow (Q2: M= 3.82). The target structure was neither comprehensible nor incomprehensible (Q3: M= 3.17). Therefore, based on these findings, there were significant differences among the treatment groups' responses on Q1, Q2, and Q3 [Q1, F (2, 77) = 27.92, p< 0.05; Q2, F (2, 77) = 16.78, p< 0.05; Q3, F (2, 77) = 15.85, p< 0.05].

Analysis of the responses to Q5 reveals a decreasing degree of recalling the main points in the lessons by the groups: PI (83.3%), C-R (72.7%), and TE (39.2%). Responses to Q6 also confirm this point since only 25% of the participants in the TE group liked the target structure. For most of the learners in this group (71.45) stories were more interesting than the structures, whereas participants in the other groups didn't have this view. They liked the structure better than the stories (PI= 66.6% and C-R= 40.9%). These findings indicate that the three types of instruction

were not equally effective in promoting acquisition of the embedded "WH" questions by the learners. Responses to Q7 show various views on the weaknesses of the lessons including monotony, no chance to produce language, limited feedback, and lack of explicit instruction.

4. DISCUSSION AND CONCLUSION

The purpose of this study was to compare the effects of various input-based approaches on the acquisition of embedded questions. The results revealed that participants who received PI performed significantly better than those who received C-R tasks and TE on both interpretation posttests. C-R and TE were also effective in improving the learners' interpretation of the target structure but C-R group scored significantly higher than the TE group and the control group made no knowledge gain in this regard. The results of the post-hoc contrast tests showed that the significant effect of the instructional treatments in all of the instructional groups maintained from the immediate to the delayed posttest.

These findings support results of past studies which attested to the superiority of PI over other input-based instructions in interpretation tasks (Van Patten and Cadierno, 1993; Lee and Benati, 2007). The significant effect of C-R tasks on interpretation of the target structure is in agreement with the findings obtained by some studies like those conducted by McNicoll and Lee (2011) and Sugiharto (2006) who confirmed the positive impacts of these approaches on enhancing learners' structural knowledge. These findings also support results of other input enhancement studies that showed the significant effects of TE techniques on recognizing the target structures (Wong, 2003).

With regard to the second research questions, results revealed that both PI and C-R tasks were effective in improving production of the target structure by the learners and they maintained this effect through time. However, the mean scores of the PI group were significantly higher than the C-R group's mean scores on both immediate and delayed posttests. Moreover, findings indicated that exposure to the TE had no significant effect on learners' ability to produce the embedded "WH" questions and the control group had no knowledge gain in these tests as well.

What is also important about the results of the production test is that both PI and C-R groups did not practice the production of the target structure during the treatment at all. Hence, contrary to Swain's (1985) claim regarding the role of output in syntactic analyses of the language, PI and C-R were effective in making considerable change in learners' knowledge and it can be concluded that the effects of these kinds of instruction can be transferred to non-input tasks. According to VanPatten and Uludag (2011), although output might undoubtedly be helpful and essential in the case of skill development, learners do not require producing language for its syntactic analysis.

Findings of this study are in contrast with results of the study done by Toth (2006) that showed PI was not more significant than other instructional approaches like input enhancement in fostering learners' interpretation and production of the target features. Perhaps the most likely explanation for the superiority of PI over C-R tasks and TE in the current study is that it provided explicit information on when embedded questions are used. Thus, it is possible that the provision of explicit information might have been enough for the learners to be able to improve in interpretation and performance of these questions.

The effectiveness of the C-R task in promoting the interpretation and production of the target structure is related to the point that this form of more explicit input enhancement induced the participants' attention to form in the input by exposing the students to awareness enhancement. In order to distinguish target structures, they compared the correct and incorrect samples they received. To do so, they were supposed to read the texts more deeply to find the correct forms of the incorrect samples presented in the table. It seemed clear that the students' awareness improved by doing so. It was observed that focus on discovery learning could improve the students' responsibility and autonomy because they themselves tried to make up the rules based on this comparison. Mohamed's (2004) also believes that C-R task can gradually lead to the learners' conscious attention to the linguistic features as they have more opportunities to be exposed to metalinguistic information related to those features and more autonomy to discover the rules.

Regarding the effect of TE on the production of the target structure, findings are in contrast with those of previous studies (White *et al.*, 1991; White, 1998) that showed the positive effect of TE on producing target forms. Failure of the TE group in producing the embedded questions probably is related to its implicit nature and as Anderson (1983) stated, most of the L2 grammar is initially learnt through conscious study and application of the explicit rules. Some other scholars like Farley (2001) believed that implicit instruction fosters awareness at noticing level and this is not enough for making progress in production skills since they need awareness at the level of understanding.

In the light of findings of this study, it can be concluded that directing learners' attention to the formal characteristics of the target structures facilitates their learning. Apart from that, results indicate that explicit input-based instructions are beneficial in helping the learners notice the target structures and use them properly as a consequence. Therefore, these findings may provide EFL teachers with valuable insights as to the selection of the best and the most effective approaches in order to put across L2 target features. This study is limited in that the production test was restricted to sentence completion. Additionally, future studies are required to examine sentence location principle through different components of PI. On a related note, different structures that match with this principle should be examined through different input and output-based tasks. It would be pertinent for further investigations not only include other effective ways of delivering treatment, but also incorporate new exemplars in the posttests in order to determine whether PI, C-R, and TE instructions have a differential effect on learners' ability to generalize to new instances.

REFERENCES

Anderson, J., 1983. The architecture of cognition. Cambridge, MA: Harvard University Press.

Benati, A., J.F. Lee and S.D. Houghton, 2008. From processing instruction on the acquisition of english past tense to secondary transfer-of-training effects on english third person singular present tense. In A. Benati & J. F. Lee (Ed.). Grammar acquisition and processing instruction: Secondary and cumulative effects. Bristol: Multilingual Matters. pp: 88–120.

Berent, G., R. Kelly, J. Schmitz and M. Kenney, 2008. The efficiency of visual input enhancement in teaching deaf learners of L2 english. In Z. Han (Eds.). Understanding second language process. UK: MPG Books. pp: 80–105.

Celce-Murcia, M., 1991. Grammar pedagogy in second and foreign language teaching. TESOL Quarterly, 25(3): 459–480.

Doughty, C.J., 2001. Cognitive underpinnings of focus on form. In P. Robinson (Ed.). Cognition and L2 instruction. Cambridge, UK: Cambridge University Press. pp: 206–257.

Ellis, R., 1997. SLA research and language teaching. Oxford: Oxford University Press.

Ellis, R., 2008. The study of second language acquisition. Oxford: Oxford University Press.

Farley, A., 2001. Authentic processing instruction and the Spanish subjunctive. Hispania, 84(1): 289–299.

Fotos, S., 1994. Integrating grammar instruction and communicative language use through grammar consciousness-raising tasks. TESOL Quarterly, 28(2): 323–351.

Fotos, S. and R. Ellis, 1991. Communicating about grammar: A task-based approach. TESOL Quarterly, 25(4): 605–628.

Han, Z.L., Z., 2013. Input processing of Chinese by ab initio learners. Second Language Research, 29(2): 145–164.

Hernandez, 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.

Jourdenais, R., M. Ota, S. Stauffer, B. Boyson and C. Doughty, 1995. Does textual enhancement promote noticing? A think-aloud protocol analysis. In R. Schmidt (Ed.). Attention and awareness in foreign language learning. Honolulu: University of Hawai'I Press. pp: 182–209.

Krashen, S., 1980. The input hypothesis. In J. Alatis (Ed.). Current issues in bilingual education. Washington, DC: Georgetown University Press. pp:175–183.

Lee, J. and A. Benati, 2007. Second language processing: An analysis of theory, problems, and solutions. London: Continuum.

Lee, J. and A. Benati, 2009. Research perspectives on processing instruction. London: Equinox.

Lee, J. and B. VanPatten, 2003. Making communicative language teaching happen. New York: McGraw-Hill.

Leow, R., T. Egi, A.M. Nuevo and Y.C. Tsai, 2003. The roles of textual enhancement and type of linguistic item in adult L2 learners' comprehension and intake. Applied Language Learning, 13(2): 1–16.

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.

Mardsen, E. and H.Y. Chen, 2011. The roles of structured input activities in processing instruction and the kinds of knowledge they promote. Language Learning, 61(4): 58–73.

McNicoll, J. and J. Lee, 2011. Collaborative consciousness-raising tasks in EAL classrooms. English Teaching: Practice and Critique, 10(4): 127–138.

Mohamed's, N., 2004. Consciousness-raising tasks: A learner perspective. ELT Journal, 58(3): 228–237.

Neupane, M., 2009. Processing instruction: An input based approach for teaching grammar. NELTA, 9(1): 14-31.

Rosa, E. and M. O'Neill, 1998. Effects of stress and location on acoustic salience at the initial stages of Spanish L2 input processing. Spanish Applied Linguistics, 2(4): 24–52.

Sharwood Smith, M., 1985. From input into intake: On argumentation in second language acquisition. In S. M. Gass& C. Madden (Eds.). Input in second language acquisition rowley. MA: Newbury House. pp: 394-404.

Sharwood Smith, M., 1991. Speaking to many minds: On the relevance of different types of language information for the L2 learner. Second Language Research, 7(2): 118–132.

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

Sugiharto, P., 2006. Grammar consciousness-raising, research, theory, an application. Indonesian Journal of English Language Teaching, 2(2): 140–148.

Swain's, M., 1985. Communicative competence: Some rules of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.). Input in second language acquisition. Rowley, Mass: Newbury House. pp: 235–253.

Takimoto, M., 2007. The effects of input-based tasks on the development of learners pragmatic proficiency. Applied Linguistics, 30(1): 1–25.

Takimoto, M., 2012. The effects of explicit feedback and form-meaning processing on the development of pragmatic proficiency in consciousness-raising tasks. System, 34(2): 601–614.

Toth, P.D., 2006. Processing instruction and a role for output in second language acquisition. Language Learning, 56(2): 319–385.

Van Patten, B., 1996. Input processing and grammar instruction: Theory and research. Norwood, NJ: Ablex.

Van Patten, B., 2007. Input processing in adult second language acquisition. In B. VanPatten, J. Williams (Eds.). Theories in second language acquisition. Mahwah, NJ: Erlbaum. pp: 173–196.

Van Patten, B. and T. Cadierno, 1993. Explicit instruction and input processing. Studies in Second Language Acquisition, 15(2): 225–243.

VanPatten, B., 2004. Processing instruction. Mahwah, NJ: Lawrence Erlbaum Associates.

VanPatten, B. and O. Uludag, 2011. Transfer of training and processing instruction: From input to output. System, 39(1): 44–53.

White, J., 1998. Getting the learners' attention: A typographical input enhancement study. In C. Doughty &J. Williams (Eds.). Focus on form in classroom second language acquisition. Cambridge: Cambridge University. pp: 53–76.

White, L.N., P. Spada Lightbown and L. Ranata, 1991. Input enhancement and question formation. Applied Linguistics, 12(4): 416–468.

Wong, W., 2003. Textual enhancement and simplified input: Effects on L2 comprehension and acquisition of non-meaningful grammatical form. Applied Language Learning, 13(4): 17–45.

Appendix (A): Samples of the Structured input activities

Frank Wilcox is a successful police chief in Lancet County. However, today is not an ordinary day for him. Below are some incomplete sentences about his bad day.

Activity1: **Read these incomplete sentences and choose the correct item.**

1. Frank's friends can't remember ..... . a) when he has come to their town b) when has he come to their tow

2. Frank always wonders.....? a) how many murders has he seen there b) how many murders he has seen there

Activity 2 : **Read these short conversations and choose the best summary for them.**

1. Chief Wilcox: We've never had seen such a thing in our county. Officer Simpson: You are right, sir.

a) Chief Wilcox wonders why that strange problem has happened.

b) "Why has that strange problem happened?" Chief Wilcox asks.

2. Chief Wilcox: You look very nervous, Simpson.

Officer Simpson: I should tell you something, sir.

a) "Simpson, Can you tell me why you are so nervous?" Chief Wilcox asks.

b) Chief Wilcox doesn't know why Simpson looks so nervous.

Activity 3: **Listen to each sentence and select sentences that match what you hear.**

1. □ Chief Wilcox doesn't know what Devon has done.

□ "Can you tell me what you have done?" Chief Wilcox asks.

2. □ "Where we should keep her?" Chief Wilcox asks. □ Chief Wilcox wonders where they should keep her.

Sentences heard by learners.

1. Devon, what have you done? 2. Where should we keep her?

Activity 4: **Each sentence below indicates the possibility of happening in your daily life. Have you had same experience or different one?**

	Same	**Different**
1. I always wonder how the crimes can be detected.		
2. I don't know what I should do when I see a robbery.		

Appendix (B): Samples of the Consciousness-Raising Tasks

Read the following passage carefully about Frank Wilcox's strange day and answer its questions. You need to work with your partners to complete the table.

A Day Like No Other

Frank Wilcox has been Chief of Police in Lancet County for 25 years; however, his friends can't remember when he has come to their town. And Fred always wonders how many murders he has seen in the town. But he can't guess what today will be like. "Chief Wilcox," calls an officer walking into his office. It is Officer Simpson. He looks nervous. Suddenly Simpson says, "Do you know where the Holman's Grocery is?" "What is it, Simpson?" asks the Chief. "It was just held up at gunpoint," Simpson says. Frank wants to find out why it has happened. The Chief knows everyone who lives there. He is not sure why Officer Simpson looks so nervous. "No one was hurt," says Simpson. "But we caught the suspect. She is one of the town girls." "Ah, well, Simpson. You guys can take care of that." Wilcox says. Suddenly he understands what is wrong. "Do you know whose daughter she is and what she has stolen?" From behind Officer Simpson, Frank sees Simpson's youngest daughter, Devon. She is in handcuffs. He sits in his chair wondering how it could be. Frank can feel angry growing inside of him. He refuses to let that anger show. He really doesn't know where they should keep her and says to Officer Simpson, "Take her for questioning," in a calm voice. "Devon, whatever you do, tell the truth" Simpson says. "I'm your dad. I love you.

Questions:

1. What can the reader tell about Chief Wilcox? I. He wants the truth. II. He has seen a lot in his job. III. He is 30 years old. a) I only b) I and II c) II and II d) I, II, and III

2. Why is Officer Simpson nervous?

a)He is scared of Chief Wilcox. b) He has just been held up at gunpoint.

c) He has just arrested the Chief's daughter. d) He has just found a piece of evidence in a new case.

3. When does the Chief discover what is wrong with Officer Simpson?

a) when he sees the gun b) when he stands up c) when Officer Simpson tells him d) when he sees his girl

	Correct	Incorrect	Explanation of the sentences in Persian
1	His friends can't remember when he has come to their town.		
2		But he can't guess what will today be like.	
3		"Do you know where is the Holman's Grocery?"	
4	"Do you know whose daughter she is and what she has stolen?"		

Appendix (C): Samples of the Textual Enhancement Tasks

Directions: Read the following passage carefully and pay attention to the bolds and underlined parts and work with your partners to answer the questions related to them. (The same passage used in C-R package with underlined and bolded target structures and Activity 1 in PI package)