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The role of sequencing isolated form focused instruction and complexity in developing English grammatical knowledge by Iranian monolinguals and bilinguals*

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Abstract

The study compared the pedagogical effects of *early* versus *delayed* Form Focused Instruction (EFFI vs. DFFI), both subsumed under Isolated Form Focused Instruction (IFFI), on the achievement of three target structures with relative degrees of complexity by monolinguals and bilinguals. Six intact Gilaki-Persian learners of English as L3 and six groups of Persian learners of English as L2 participated in the study. They were all male beginning learners of English in Iranian public high schools who followed a pretest-treatment-posttest procedure. Four groups (grade 7) received instruction for the simple structure; four other groups (grade 8) were taught the moderately complex structure and four groups (grade 9) were exposed to the highly complex structure instruction. Within each grade, one group of Gilaki and one group of Persian natives received EFFI while their native counterparts benefited DFFI. The overall results revealed that when the method of instruction was the same, Gilaki natives outperformed Persian natives both in the post and delayed tests regardless of complexity. The groups that received the simple structure via EFFI did better than their native counterparts instructed via DFFI in both the post and delayed tests though a significant difference was only observed in the latter test. In contrast, DFFI groups outperformed their native counterparts taught via EFFI on the fairly and highly complex structures in the post and delayed posttests. Further analysis of the data demonstrated that DFFI contributes better to the durability of gain effects for more complex structures regardless of linguistic background of the learners.

Key words: Isolated Form-focused Instruction, Early/Delayed Form-Focused Instruction, Structural Complexity, monolinguals, bilinguals

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Introduction

In the literature of second language acquisition, there are a number of terminologies, which more or less refer to Form Focused Instruction (FFI): *instructed second language acquisition, instructed second language learning, formal instruction, explicit instruction, code-focused instruction, grammar instruction and grammar teaching.* Generally, FFI refers to "any pedagogical effort which is used to draw learners' attention to language form either explicitly or implicitly" (Spada, 1997:73). Approximately most FFI researchers have acknowledged the beneficial effects of FFI on different aspects of second language acquisition (Doughty & Long, 2003; Ellis, 2001, 2002, 2008; Kim, 2014; Long, 1983; Nassaji, 2016; Nassaji & Fotos, 2004, 2011; Norris and Ortega, 2000, 2001; Pawlawk, 2006; Schmidt, 1990; Spada, N, 1997, 2014; Spada & Lightbowen, 2008). While FFI overtly or covertly draws learners 'attention to formal features of language, Meaning Focused Instruction (MFI) engages them in pure communication. Only few researchers (e.g. Krashen, 1982; Prabhue, 1987) claim that a purely MFI is sufficient for successful foreign language acquisition. However, the consensus is that MFI is necessary but not sufficient for second language acquisition and it should be complemented with FFI. Housen and Pierrard (2005) maintain that formal instruction helps learners to '*internalize'*, '*modify'* and '*consolidate'* their knowledge so that they can develop more proficiency, accuracy and fluency. FFI has been subject to different categorization. For instance, Spada and Lightbowen (2008) differentiated between *Integrated* (e.g. input flood, input enhancement and recast) and *isolated* FFI. The former integrates form and meaning but the latter sequences them. In fact, IFFI is a type of FFI which separates engagement to form from engagement to meaning. That is, instruction of grammatical structures is presented either before or after (not during) the focused tasks. From another point of view, FFI could be either explicit or implicit. The fundamental difference between explicit and implicit instruction is that the former '*directs'* learners' attention to grammatical features while they are aware of understanding and learning the rules which modify the forms and the latter '*attracts'*

learners' attention to formal features of language in order to induce the rules from the communicative context by themselves (de Graaf and Housen, 2009). Moreover, Language is treated as a tool in implicit instruction whereas it is viewed as an object of study in the explicit instruction, giving metalinguistic explanation of the rules. The bulk of FFI research indicates the overall advantage of explicit instruction over implicit one in foreign language acquisition (Erlam, 2000; Radwan, 2004; Robinson, 1996; Spada & Tomita, 2010). Norris and Ortega's (2001) meta-analysis of 49 articles revealed that explicit instruction increased the durability of learning as shown on delayed posttests. Moreover, Williams (2001) argues that finding the 'holes' poses considerable difficulty for low proficient learners, suggesting that they need more explicit rather than implicit instruction. IFFI in the form of explicit instruction can be justified by recourse to Van Patten's (1990) 'information processing theory'. According to this theory, the capacity of short–term memory of beginning EFL learners is not spacious enough to give concurrent attention to form and meaning in the initial stages of language learning. Raimes (2002) maintains that pushing beginning students to pay simultaneous attention to form and meaning poses considerable difficulty and drastically decreases their enthusiasm for learning. Ellis also (2002) argues that grammar and task-based activities should be kept separate with the exception of feedback.

As mentioned, Isolated FFI suggests that explicit grammar instruction should either precede (EFFI) or follow (DFFI) the communicative tasks. Followers of 'skill acquisition theory' (like Anderson, 1982; Dekeyser, 1998, 2003, 2007) argue that explicit instruction should be offered prior to fluency-oriented activities since rules need to be communicatively practiced for the purpose of automaticity. On the other hand, researchers like Ellis (2002, 2008) maintain that formal instruction should not be provided before interaction activities. He argues that if rules are presented before communicative tasks, learners will engage in manipulation of the rules rather than creation of the meaning. While researchers (Ellis 2008; Spada and Lightbowen 2008) argue that FFI is definitely effective on

gaining accuracy. They believe that further research is needed to discover *when* and *how* it works more efficiently. Ellis (2002) states that we need studies which address FFI effects on the performance of beginning learners, acknowledging that it has a positive impact on the performance of intermediate and advanced learners. Moreover, to date, most of the FFI studies have only dealt with the early provision of explicit instruction. Studies which compare pedagogical effects of both EFFI and DFFI on the learning of English grammatical structures with relative levels of complexity in multilingual settings are scarce. Accordingly, the present study aimed to make a comparison between the effects of EFFI versus DFFI on the learning of English grammatical structures with three levels of complexity by Persian monolinguals and Gilaki-Persian bilinguals within a communicative framework.

Explicit FFI and structural complexity

Explicit instruction may work differently for various structures depending on the degree of the complexity. The findings of the study conducted by Dekeyser (1995) & Robinson (1996) reported that explicit instruction works more efficiently for simple structures while researchers like Graaff (1997) & Housen et al. (2005) found that explicit instruction is much more effective for the complex structures.

Spada and Tomita's (2010) meta-analysis also revealed greater effect sizes for explicit over implicit instruction both for English simple and complex grammatical structures. On the contrary, implicit instruction was statistically significant for complex not simple rules. One point to mention is the fact that in this study they had considered 'the number of transformations' as the only criterion to determine the complexity of grammatical structures. Robinson (1996) examined the acquisition of simple and complex rules by adult EFL learners under four training conditions: incidental, implicit, rule search and explicit. The participants had experienced 6-8 years of formal instruction in English. The findings reported superior performance of explicit group to all other groups on simple rules. Moreover, the implicit group did not perform as accurately as the other groups on the complex rules, thus rejecting Krashen's (1981) claims in that complex rules are only learned

implicitly. The shortcoming of this study is that Robinson used the experts' subjective judgment to rate the complexity of sentences. Andrews (2007) instructed simple (subject-verb agreement) and complex (relative clauses) rules to two experimental groups through implicit and explicit instruction. Participants were secondary school students whose age ranged between 13 and 19. The explicit instruction was provided by the teacher and the implicit instruction was a task from which the students discovered the rules. The results indicated that explicit instruction made a striking difference for learning complex rules while both explicit and implicit instructions were equally effective for the simple rule. The study suggested that teachers teach complex rules through explicit instruction but allow students to induce simple rules themselves. Tammenga-Helmantel et al. (2014) compared the effectiveness of incidental, implicit, inductive and deductive grammar instruction in a large-scale quasi-experimental study. The participants were native speakers of Dutch who were beginners in English. They concluded that all four experimental groups outperformed their counterpart control groups regardless of the complexity of the target structures. The findings of the study supported any type of grammar instruction rather than zero grammar instruction for both simple and complex rules.

Sequencing Isolated FFI

As already mentioned, FFI research indicates the overall advantages of explicit over implicit instruction. The problem is that most of these studies presented explicit instruction prior to communicative tasks. Classroom oriented research which investigates the impact of explicit instruction when it is offered after the communicative task is scarce. Here are a few examples. In a dissertation study, Kim (2012) compared the effectiveness of Meaning Focused Instruction (MFI) with that of a mixed method (i.e. a combination of FFI and MFI on the adult's learning of simple and complex English target structures. The findings of the study reported the better performance of the mixed method group on the post and delayed tests. Besides, the results of the study indicated that provision of deductive explicit instruction prior to MFI was more

facilitative than inductive explicit instruction following MFI. The study demonstrated that deductive explicit instruction before and after the communicative activities contributed to the explicit and implicit knowledge of the participants over time. Howeve, the groups who received inductive explicit instruction before and after the MFI achieved only explicit knowledge. Kim (2015) examined the effects of FFI on the development of explicit and implicit knowledge. The participants of the study were adults who were randomly assigned into three experimental groups and a control group. One group received FFI before MFI. The second group received the treatment in reverse order. The next group enjoyed only MFI and the last group played the role of a control group. The findings of the study revealed that FFI offered before and after the MFI was equally effective for the development of explicit knowledge. However, provision of FFI before the MFI contributed to the development of implicit knowledge more efficiently. Kim concluded that early FFI helps adult learners to notice the gaps between their inter-language and the target language input, restructure and finally proceduralize the target structures, suggesting that explicit instruction should be offered first. Spada, N et al. (2014) compared two groups of adult learners' acquisition of passive constructions after they had received integrated or isolated FFI. Although no striking differences were observed between the performances of the two groups, results indicated that integrated group did better on the oral production test but isolated group performed better on the written grammar test.

The current study

Considering the interesting findings of the previous research, there remains a number of questions yet to be explored. To this end, this study is a modest attempt to probe possible effects of presenting explicit FFI before versus after communicative tasks. Moreover, it seeks to find whether such interventions lead to similar or different effects when targeting grammatical structures with different levels of complexity. Finally, due to the fact that Iran is a multilingual country (Persian is the official national language but for many Iranian it is the second native language as they speak another language e.g. Turkish, Armenian,

Gilaki, Mazandarani, Arabic, Kurdish, Baloochi, etc. as their mother tongue.), it aims to find whether multilingualism plays an enhancing or deterring role in possible gain effects in any of these instructed conditions as formulated in the following.

1. Which procedure of IFFI (early/ delayed) is more effective in learning grammatical structures by Iranian EFL learners?
2. Which procedure of IFFI (early/ delayed) is more effective in learning simple versus complex grammatical structures by Iranian EFL learners?
3. Which procedure of IFFI (early/ delayed) is more effective in learning grammatical structures by monolingual (Persian) versus bilingual (Gilaki - Persian) Iranian EFL learners?

Target structures

IFFI in this study targeted three grammatical forms. ***Adjective noun order***: In English an adjective which modifies a noun appears before the noun (e.g. He has an expensive car). This is called the attributive position. In Persian adjectives follow nouns whereas in Gilaki, similar to English, they precede nouns. ***Wh-questions***: These are questions which begin with *wh*-phrases (e.g. who, *what, when, where, which, how, etc.*) and require information rather than a yes or no answer. They generally follow three rules: (1) the *wh*-phrase is placed in the initial position, (2) a (modal) auxiliary is obligatory, and (3) the subject is inverted with the (modal) auxiliary. However, when a wh-phrase refers to the subject of a clause, a declarative word order is used. Both Gilaki and Persian are wh- in-situ languages, in which none of these rules is obligatory. ***Alternating Dative constructions***: These include di-transitive verbs *(e.g. give, buy, send etc.)* which have two syntactic forms in English. They allow both double object (DO) variant (e.g. *Mary gave him the money)* and prepositional dative (PD) form (e.g. *Mary gave the money to him*). In the former, the goal must precede the theme while in the latter the theme precedes the goal. All di-transitive verbs appear in the DO variant in Gilaki while Persian licenses the PD form only.

The rational for choosing these particular structures was threefold. First, they are included in the compulsory textbooks published for English language teaching in high schools and serve as component parts of the official syllabus endorsed by the ministry of education. Second, they instantiate specific word order and structural positions and hence are syntactically salient. Third, they can be graded for complexity as explained below and so fulfill the purpose of the study.

Complexity

Complexity is a vexed term in language teaching/learning defined variably by researchers. The present study adopted the kind of definition introduced by Tammenga-Helmantel et.al. (2014), which implements four criteria to determine structural complexity.

Reliability

It refers to the number of exceptions. The more exceptions imply less reliability and therefore more complexity. For example, not all di-transitive verbs in English are alternating datives. Some di-transitive verbs have only the DO form (e.g. tell) and some have only the PD form (e.g. explain). Dummy auxiliaries (do, does, did) are not obligatory in subject wh-questions. Adjective-noun constructions bear no exception. Therefore, considering the three target structures in the present study, dative alternations bears the least reliability and adjective-noun order is the most reliable one.

Structural complexity

This denotes the number of transformational steps which a target structure undergoes. The greater number of transformations is associated with higher complexity. Dative alternations and wh-constructions consist of two and three transformations respectively. Although *wh*-constructions undergo more transformations, they are simpler than dative constructions since transformations move an operator only to clause front position, which enhances their saliency. Saliency suggests simplicity. Accordingly, dative verbs which instantiate clause internal transformations are structurally more complex than *wh*-constructions. Structural complexity might also be related to a morphological constraint: Only di-transitive verbs of one

syllable or verbs with stress on the first syllable alternate. Wh-questions and adjective-noun order are not morphologically constrained. The adjective-noun construction consists of only one structure and so it is categorized as the simplest one.

Semantic complexity

It refers to semantic constraints which lead to specific structural properties. Dative alternation in English is subject to a range of semantic rules. For instance, the *possession constraint* allows alternation for verbs including an *animate* argument which is capable of *possession* (She sent Mary a book. * She sent France a book). Similarly, alternation is possible for verbs which denote an '*instantaneous ballistic motion*' (e.g. throw) or verbs of *communication* (e.g. teach) but not manner of speaking (e.g. shout). Such semantic complexity is not observed in the two other structures.

Transparency

Indicates the nature of relation between form and meaning. As stated, dative verbs have two syntactic realizations which are semantically different. Therefore, they are less transparent and thus more complex. There is a one to one relation between form and meaning in wh-words. Adjective-noun constructions show no variability between form and meaning. Table (1) summarizes implementation of these criteria to determine complexity of the target forms.

Table 1 The relative complexity of the target structures

Complexity Criteria	Adj-noun order	wh-questions	Alternating dative
Reliability	moderately complex	moderately complex	complex
Structural complexity	not complex	moderately complex	complex
Semantic complexity	not complex	not complex	complex
Transparency	not complex	not complex	complex

Overall, dative verbs were classified as the highly complex structure; wh-questions the moderately complex one and the adjective-noun order construction as the simplest one.

Method

Design

The study enjoyed a quasi-experimental design. The independent variables were isolated form focused instruction with two layers (early and delayed), linguistic background with two layers (monolinguals and bilinguals) and complexity with three layers (low, moderate and high). The dependent variables were accuracy scores for target structures in the posttests. The variable of gender was controlled in the present study.

Participants

The participants consisted of 12 intact classes of Iranian junior high school male students. Six classes were Gilaki-Persian bilinguals (i.e. 2 classes from grade 7, 2 classes from grade 8 and 2 classes from grade 9) Studying in Rasht, north of Iran. The other six matched classes were Persian monolingual Junior high school male students (i.e. 2 classes from grade 7, 2 classes from grade 8 and 2 classes from grade 9) Studying in Tehran. To begin with, the whole students were given a bio data questionnaire in order to elicit their historical background. They were assumed to start learning English as a foreign language approximately at the age of puberty (13) at public schools under the supervision of Iranian Ministry of Education. Students in public schools receive English instruction as an obligatory course for one session (90 minutes) per week. The students' age ranged from 14 to 17. Based on the results of the questionnaire, those who did not match these criteria were excluded from the study. The remaining students were then given a pretest to determine their existing knowledge of the target structures. Accuracy mean scores of all groups were lower than 50% as expected. In addition, statistical analyses of the mean scores indicated no significant differences between the matched groups. Finally, equal number of learners was selected in each matched classes in order to have equal sized samplings. Hence, out of 178 Gilaki-Persian learners of English, 122 students and from 172 Persian learners of English, 122 were selected as the subjects of the study. Table (2) shows the distribution of the participants in each condition.

Table 2 The distribution of subjects in each instructed situation

Groups	**Grade 7**	**Grade 8**	**Grade 9**
Gilaki-Persian early	22	20	19
Gilaki-Persian delayed	22	20	19
Persian early	22	20	19
Persian delayed	22	20	19
Total	88	80	76

Pedagogical tasks

Focused communication tasks are those tasks whose execution entails using a particular grammatical feature. Nassaji and Foto (2006) pointed out that these tasks are communicative in nature but at times draw the learners' attention to formal features of language as well, calling them 'structure-based focused tasks'. Following Ellis (2009), learners should not be told that a particular grammatical feature is hidden. If they are aware of the target feature, it is a 'situational grammar exercise'. According to Loschky and Bley-Vroman (1993), focused tasks should meet three conditions: 1) performance of the task should reflect natural language use beyond the classroom (*task naturalness*).2) Learners perform the task more easily if they employ the target feature (*task utility*). 3) Learners have to use the target feature for its successful implementation (*task essentialness*). Focused tasks can be receptive or productive in nature, what Ellis (2009) terms 'input providing' and 'output prompting' respectively. The former engages learners in listening or reading skills while the latter involve them in speaking and writing skills.

Considering aforementioned conditions, a number of receptive and productive pedagogical focused tasks including picture matching, picture description tasks, 20 question games and TPR activities were employed to provide input and output practice for the target structures. Attempts were made to adjust the complexity of the task with the proficiency of the learners (all beginners) by providing visual support, restricting the responses to the phrase and sentence level, using frequent vocabulary and choosing concrete topics (see Van den Barden, 2006).

The comprehension tasks preceded the production tasks. By the way, students were provided assistance via *modeling and paraphrasing* during the implementation of the tasks.

Assessment tasks

Bio data questionnaire

A bio data questionnaire was developed and administered to the intact classes before subject selection. Its purpose was to gain the historical background of the participants such as the age, mother tongue, knowledge of any other language, the order of learning the languages, starting age of learning English and the most frequently used language in daily life.

Translation task

This consisted of sentences to be read by a native speaker orally in the test takers' native language (Gilaki or Persian). Students were given 20 seconds to write the English translation of a sentence on a paper. The test had three sections. The first section targeted Noun-Adjective order (N =10). If a test taker produced the attributive position of adjectives accurately, he got a score of one regardless of any other mistake; the second had eight items targeting wh-questions in English. The test takers would receive half of a point if they translated wh-words correctly and used an appropriate auxiliary and another half score for auxiliary inversion. Finally, the third section targeted dative alternation (n= 6). Students received one point for each translation if both word order and correct prepositions were used. All items in the three sections were scrambled with five distracters. The students were not given extra opportunity to get back for edition or production of missing items. No item was recited twice.

Spot the difference task

Students were given pictures printed on paper. They were instructed to write down as many differences as they could. For instance. There is a red flower in the first picture but a yellow flower in the second picture. To elicit the target structure, the task was presented in sentence completion format all starting with "There is ……." There were 15 differences in the pictures 10 of which were related to the target

Adjective-Noun order. Students received one point for each correct noun adjective order.

Guess and write task

Students were given printed mini dialogues with missing parts. They were asked to guess the eliminated parts and write them down to complete the dialogue. The test 14 items of which six were distracters. The target items were missing wh-questions. The students received half a point for writing a correct wh-word and another half for auxiliary inversion. Dialogues were presented with pictures for stimulation and interest.

Sentence completion task

Students were given a list of sentences to be completed using the given words. The test included 14 items each starting with a noun and a blank space to be filled in by the student. For the target structures, dative verbs (n=6), the given words were a verb and two nouns. For the distracters, there were a verb, a noun and an adverb. Sentences were assigned 1 point if they were completely correct and half a point if they included preposition misuse or missing prepositions.

Procedure

All classes were pretested in the first session, just before treatment started, to measure their knowledge of the target structures. The first section of the translation test was given to the four matched classes of grade 7 to test their knowledge of Adjective-Noun order (low complexity). The second section was given to the four matched groups at grade 8 and the third sections was given to the related groups in grade 9 to measure their knowledge of English wh-questions (moderate complexity) and alternating dative verbs (high complexity) respectively. Instruction started from second session and continued for four sessions. One group of Persian L1 learners and one group of Gilaki-Persian bilingual learners of English in grade 7 received explicit instruction of the target structure followed by receptive and productive focused tasks as class activities to practice the target structure (EFFI groups). The other paired groups received the communicative tasks before explicit instruction (DFFI groups). The same procedure was

followed for grade 8 and 9. While the learners were performing the tasks, the teacher playing the role of a scaffold, walked around, managed the class and provided necessary assistance to the learners by modeling and paraphrasing. The posttest was administered immediately after treatment in the sixth session. A follow up delayed posttest was given to the students after three weeks.

Results

The performance of each group in the pretest and that of the posttest were compared to measure gain effects for the target structure in every instructional condition. Besides, matched groups were compared in terms of method of instruction and language background. The analyses are presented based on the complexity of the target structures.

The simple structure (Adjective-Noun order)

A simple comparison between the means (Table 3) shows that both monolinguals and bilinguals who received explicit instruction first outperformed their native counterparts. Furthermore, bilinguals did better than monolinguals when the method of instruction was the same. The same pattern was also observed in the delayed posttests though the durability of learning of target structure slightly declined over time.

Table 3 Descriptive statistics for Adjective-Noun order

		Pretest		Posttest		Delayed test	
Groups	**N**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
GPE	22	38.18	9.06	77.72	13.06	71.36	14.24
GPD	22	36.36	9.53	73.18	14.92	62.27	11.09
PE	22	35.00	10.57	74.09	10.98	68.63	12.83
PD	22	34.54	10.10	68.63	12.45	61.81	13.32

G = Gilaki; P = Persian; E = early; D = delayed

The results of paired samples t-tests run on pretest and posttest scores showed that all four groups of participants who received instruction of simple structure via EFFI as well as DFFI significantly outperformed above chance level in the posttest (GPE: t =10:88, P= .00; GPD: t = 9:27, P= .00; PE: t = 11:67, P = .00; PD: t = 8:80, P = .00).

This accounts for the positive effectiveness both of early and delayed IFFI on the achievement of the target structures regardless of linguistic background of the learners. Results of one-way ANOVA (see table 4) showed no statistical differences between the groups in the posttests (p = .14).

Table 4 One-way ANOVA for Adjective-Noun order in the posttest

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9.227	3	3.076	1.838	.14
Within Groups	140.545	84	1.673		
Total	149.773	87			

Likewise, another one-way ANOVA was run to compare groups based on their performances in the delayed posttests. As table 5 illustrates, the obtained p-value (.038) is lower than .05, indicating that there is statistical difference between the groups.

Table 5 One-way ANOVA for Adjective-Noun order in the delayed posttest

FFI	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.761	3	4.920	2.946	.038
Within Groups	140.318	84	1.670		
Total	155.080	87			

Finally, a Post Hoc analysis (LSD) was computed in order to detect the exact location of the differences. That is, the purpose was to see which group(s) significantly performed better than other group(s). As it can be seen from Table 6, the dramatic differences existed between GPE and GPD as well as between GPE and PD groups. In simpler terms, bilinguals who enjoyed explicit instruction early significantly outperformed their native counterparts and monolinguals who received delayed explicit instruction.

Table 6 Post hoc comparisons for Adjective-Noun order in the delayed posttest

(I) Grouping	(J) Grouping	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
GPE	GPD	9.09091*	3.89692	.022	1.3415	16.8404
	PE	2.72727	3.89692	.486	-5.0222	10.4767
	PD	9.54545*	3.89692	.016	1.7960	17.2949
GPD	GPE	-9.09091*	3.89692	.022	-16.8404	-1.3415
	PE	-6.36364	3.89692	.106	-14.1131	1.3858
	PD	.45455	3.89692	.907	-7.2949	8.2040
PE	GPE	-2.72727	3.89692	.486	-10.4767	5.0222
	GPD	6.36364	3.89692	.106	-1.3858	14.1131
	PD	6.81818	3.89692	.084	-.9313	14.5676
PD	GPE	-9.54545*	3.89692	.016	-17.2949	-1.7960
	GPD	-.45455	3.89692	.907	-8.2040	7.2949
	PE	-6.81818	3.89692	.084	-14.5676	.9313

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

The Fairly complex structure (wh-questions)

Table 7 displays the mean (M) and standard deviation (SD) of the groups. As it shows, both GPD and PD outperformed their native counterparts in the posttests and delayed posttests. Unlike what we observed in the simple structure, delayed explicit instruction was more effective here than early explicit instruction. Again, bilinguals did better than monolinguals when the same method of instruction was employed.

Table 7 Descriptive statistics for the wh-questions

		Pretest		Posttest		Delayed test	
Groups	**N**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
GPD	20	38.12	4.92	85.00	11.89	80.00	12.26
PE	20	36.87	5.32	74.37	12.31	68.12	9.04
PD	20	33.75	7.95	80.62	11.63	77.50	13.35

G = Gilaki; P = Persian; E = early; D = delayed

Paired-sample t-tests were also run in order to discover any possible differences of the means from the pretests to the posttests for the

achievement of wh-constructions. The results revealed that all four groups significantly performed above chance on the posttests (GPE: t = 11.41, P=.00; GPD: t = 14.69, P=.00; PE: t = 11.93, P = .00; PD: t =14.26, P = .00). This can be taken as the evidence that both methods of instructions are potentially effective on the achievement of dependent variable. Moreover, the results of one-way ANOVA, as shown in Table 8, demonstrated that the obtained P value (.082) is larger than .05, suggesting that no striking differences were found between the groups in the posttests.

Table 8 One-way ANOVA for wh-questions in the posttest

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.637	3	2.546	2.321	.082
Within Groups	83.350	76	1.406		
Total	90.987	79			

The same statistical analysis was also computed on the performances of the groups in the delayed posttests. As table 9 displays, the p value (.001) is lower than the level of significance (.05). In other words, the differences between the groups are statistically significant.

Table 9 One-way ANOVA for wh-questions in the delayed posttest

FFI	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	13.300	3	4.433	5.672	.001
Within Groups	59.400	76	2		
Total	72.700	79			

Therefore, a post hoc analysis (LSD) was necessary in order to discover the precise location of differences. As Table 10 displays, the statistical differences lie between GPE and GPD; GPE and PD; GPD and PE as well as between PE and PD. Considering the means of the groups, we can come to the generalization that bilinguals treated via delayed explicit instruction significantly outperformed their native counterparts and monolinguals instructed through early explicit instruction. Similarly, monolinguals who received delayed explicit instruction outperformed their native counterparts who enjoyed early

explicit instruction. The only amazing point was that even monolinguals instructed via delayed explicit instruction dramatically outperformed bilinguals treated by early explicit instruction. It seems that delayed form-focused instruction was more effective than early form-focused instruction for the achievement of fairly complex structure.

Table 10 Post hoc comparisons for wh-questions in the delayed posttest

(I) Grouping	(J) Grouping	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
GPE	GPD	-10.62500*	3.49459	.003	-17.5851	-3.6649
	PE	1.25000	3.49459	.722	-5.7101	8.2101
	PD	-8.12500*	3.49459	.023	-15.0851	-1.1649
GPD	GPE	10.62500*	3.49459	.003	3.6649	17.5851
	PE	11.87500*	3.49459	.001	4.9149	18.8351
	PD	2.50000	3.49459	.477	-4.4601	9.4601
PE	GPE	-1.25000	3.49459	.722	-8.2101	5.7101
	GPD	-11.87500*	3.49459	.001	-18.8351	-4.9149
	PD	-9.37500*	3.49459	.009	-16.3351	-2.4149
PD	GPE	8.12500*	3.49459	.023	1.1649	15.0851
	GPD	-2.50000	3.49459	.477	-9.4601	4.4601
	PE	9.37500*	3.49459	.009	2.4149	16.3351

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

Complex structure (Alternating Dative constructions)

Table 11 illustrates that both GPD and PD groups performed better than their native counterparts did. In addition, bilinguals outperformed the monolinguals who were treated via the same method of instruction. Besides, while the effects of the DFFI partially atrophied after three weeks, the impact of EFFI greatly declined after the same period.

Table 11 Descriptive statistics for alternating dative constructions

		Pretest		**Posttest**		**Delayed test**	
Groups	**N**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
GPE	19	33.33	9.21	78.12	16.03	67.54	18.81
GPD	19	30.70	10.03	85.00	11.89	82.45	17.09
PE	19	35.08	7.64	74.37	12.31	63.15	18.06

PD	19	31.57	9.45	80.62	11.63	78.94	16.51

G = Gilaki; P = Persian; E = early; D = delayed

Likewise, paired-samples t-tests were computed to discover whether the performances of the four groups of learners who received the complex structure (i.e. dative verbs) significantly improved from the pretests to the posttests or not. The findings indicated that all four groups performed above chance on the posttests (GPE: t = 11.49, p = 00; GPD: t = 17.62, p = .00; PE: t =8.60, p = .00; PD: t = 11.07, p = .00).

Furthermore, a one-way ANOVA was run to discover whether the mean differences between groups on the posttests are significant or not. As can be seen from Table 12, the obtained P-value (.024) is lower than .05, suggesting that the performances of the groups on the dative verbs in the posttest are statistically significant.

Table 12 One-way ANOVA for alternating dative constructions in the posttest

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.684	3	2.561	3.350	.024
Within Groups	55.053	72	.765		
Total	62.737	75			

To see the location of statistical differences within four groups of participants, the Post hoc analysis (LSD) was run. As table 13 displays, the only statistical difference is seen between the GPD and PE. Considering the means of the four groups (see Table 11), we can conclude that bilinguals who received delayed explicit instruction dramatically outperformed monolinguals that were treated by early explicit instruction.

In a similar fashion, another one-way ANOVA was computed to discover whether between-group differences are statistically meaningful in the delayed posttest. As table 14 shows, p-value (.003) is lower than alpha level (.05), demonstrating that the performances of the

groups are statistically significant. Finally, post hoc comparisons (LSD) of mean scores in the delayed posttest revealed that there is a statistical significant difference only between the GPD and PE groups. As the means of the former group (82.45) is greater than that of the latter one (63.15), the interpretation is that bilinguals who enjoyed delayed explicit instruction performed better than monolinguals that were educated through early explicit instruction.

Table 13 Post hoc comparisons for alternating datives in the posttest

					95% Confidence Interval	
(I) Grouping	(J) Grouping	Mean Difference	Std. Error	Sig.	Lower Bound	Upper Bound
GPE	GPD	-6.14035	4.72835	.198	-15.5661	3.2854
	PE	8.77193	4.72835	.068	-.6539	18.1977
	PD	.87719	4.72835	.853	-8.5486	10.3030
GPD	GPE	6.14035	4.72835	.198	-3.2854	15.5661
	PE	14.91228*	4.72835	.002	5.4865	24.3381
	PD	7.01754	4.72835	.142	-2.4083	16.4433
PE	GPE	-8.77193	4.72835	.068	-18.1977	.6539
	GPD	-14.91228*	4.72835	.002	-24.3381	-5.4865
	PD	-7.89474	4.72835	.099	-17.3205	1.5311
PD	GPE	-.87719	4.72835	.853	-10.3030	8.5486
	GPD	-7.01754	4.72835	.142	-16.4433	2.4083
	PE	7.89474	4.72835	.099	-1.5311	17.3205

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

Table 14 One-way ANOVA for alternating datives in the delayed posttest

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4777.047	3	1592.349	5.112	.003
Within Groups	22426.901	72	311.485		
Total	27203.947	75			

These findings indicated that both EFFI and DFFI are effective on the achievement of the target structures by beginning monolingual and bilingual learners regardless of the complexity of the structures. More

specifically, the findings demonstrated that a particular procedure of FFI might work more efficiently depending on the nature of the target structure. For example, both Gilaki and Persian natives who received EFFI performed better than their native counterparts who were treated by DFFI on the simple structure both in the post and delayed posttests. In contrast, as the complexity of target structures increased, the effectiveness of DFFI became more prominent for both monolinguals and bilinguals. DFFI procedure not only contributed to the achievement of the fairly and complex structures more effectively in the posttests but it also resulted in better durability of these structures in the delayed posttests. Besides, while statistically significant difference was observed in the delayed posttest of the simple structure in favor of the groups who received EFFI, it was found in the delayed posttests of fairly complex as well as in the post and delayed posttests of complex structures in favor of the groups who received DFFI. Overall, Gilaki-Persian bilinguals outperformed Persian monolinguals when the method of instruction was the same.

Discussion

The findings of the current study challenge Krashen's (1981) claim but support Schmidt's (1990) 'noticing hypothesis'. The former rejects the pedagogical effects of FFI while the latter is based on the assumption that FFI induces 'noticing', which in turn assists acquisition. The findings obtained from the simple structure support 'skill acquisition theory' (Deckeyser, 1998, 2003, 2007),maintaining that explicit instruction should appear before the implementation of focused communication tasks for the purpose of restructuring, automaticity and proceduralization. The results derived from the simple structure are also in line with Kim's (2014) study in that metalinguistic knowledge is more effective when it precedes interaction activities. In contrast, the results gained from more complex structures are not supportive of aforementioned arguments. That is, DFFI was found to be more effective than EFFI on the achievement and durability of fairly and complex structures. The interpretation is that beginners may find it difficult to practice fairly and highly complex rules communicatively

when the rules are offered to them after the execution of the focused tasks. Likewise, the findings of the present study reject the argument made by Tammenga-Helmantel et al. (2014) in that the method of grammar instruction has nothing to do with the complexity of the structures.

The rationale behind why DFFI contributes more efficiently to the achievement of more complex target structures in the posttests and their durability in the delayed posttests is attributed to the concept of ***noticing*** (Schmidt, 1990). When learners are engaged to communicative tasks without knowing the complex rules, they are likely to commit plenty of grammatical errors. Indeed, they want to communicate something in their interlanguage but they do not possess the necessary target rules. This is called '**noticing the hole'**. When they are told the rules *after* the execution of the task, they naturally make a cognitive comparison between the target input and their erroneous output, which is technically called '**noticing the gap'** (Schmit and Frota, 1986).Researchers (like Swain, 1995,1998, 2005; Swain & Lapkin, 1998; Williams, 2005; cited in Graff and Housen, 2009) maintain that hole-and gap-noticing activities not only stimulate noticing but also help learners to restructure their interlanguage toward the target language. Rodgers (2014) maintains that restructuring needs 'noticing the gap' activities as well as tasks which involve using new and complex target structures.

In contrast, when learners know the rules before the execution of focused tasks, they practice them more conveniently, thus making less grammatical errors. This implies that fewer learning processes (e.g. noticing the hole and noticing the gap) will take place in the cognition of the learners. Such a procedure naturally restricts the creative production of the learners. According to Izumi (2002) & Swain (2005), instruction offering learners the opportunity to creatively generate their own output leads to deeper processing of target forms and results in more durable L2 knowledge. Ellis (2012) also stresses that if rules are presented to the learners before practicing communicative tasks, it leads to 'text manipulation'. On the contrary, when learners are not aware of the target structures while performing the tasks, it results in' text

creation' activities. Ellis (2008) calls the former case 'error avoiding' but he terms the latter case 'error inducing' option.

Moreover, when learners are not familiar with the target rules during communicative tasks, it is highly probable that they naturally get involved in 'negotiation of form' while facing communication breakdown. Lyster (1998) differentiated 'negotiation of form' from 'negotiation of meaning', arguing that the former increases accuracy. Williams (1999) maintains that 'negotiation of form' is more effective in language teaching when it is generated by the learners rather than teachers.

Norris and Ortega's (2000) meta-analysis is based on the premise that the effects of FFI partially decrease over time. The question raised here is 'Doesn't it make a difference *when* the explicit instruction is offered? Another challenging issue is whether the complexity of the structure has any potential impact on the durability of the target structures or not. The present study stipulates the aforementioned argument by noting that the positive impact of FFI partially atrophies over time for fairly and highly complex structures if explicit instruction follows the focused communication tasks. If not, the durability of more complex structures may dramatically diminish by the lapse of time. The current study, moreover, argues that the durability of simple structures less atrophies if explicit instruction proceeds rather than follows the fluency-oriented activities.

The individual interpretation of performance of some participants showed that the scores of some individuals have slightly improved from the posttest to the delayed posttest. Such a notion is compatible with the findings of the studies carried out by a number of researchers (like Macky, 1999; Ellis, Loewen and Erlam, 2006) in that the effects of FFI may emerge subsequently rather than immediately. Although these researchers accounted the nature of the structure for the amazing outcome of the study, the present study attributed it to the appropriate timing of explicit instruction in relation to communicative tasks. Such an argument also supports the theoretical assumptions of 'weak interface hypothesis', arguing that the effects of FFI may emerge later.

The outcome of the study also acknowledged that bilinguals outperformed the monolinguals regardless of the complexity of the structures. This implies that bilinguals benefited both types of FFI (early and delayed) better than monolinguals. The interpretation is that they have more metalinguistic awareness than monolinguals, a notion which has been supported by a number of researchers (Cenoz & Valencia, 1994; Jessner, 2006; Modirkhamene, 2008). They argue that metalinguistic awareness is a cognitive advantage since it enables learners to pay focal attention to language rules and finally identify syntactic, semantic and phonological errors. The superior performance of bilinguals can also be attributed to the facilitative effects of L1 and L2 in L3 acquisition.

Concluding Remarks

The present study is supportive of teaching target structures to beginning EFL learners through FFI procedures particularly when the curriculum is based on communicative language teaching. What is essential is that EFL teachers are required to pay special attention to the nature of target structures when they start teaching target structures. First, they need to have a comprehensive definition of the term 'complexity'. It is suggested that deductive explicit instruction prior to receptive-productive cycle of communication focused tasks works more efficiently for the simple structures. In contrast, if the target structures are more complex, metalinguistic rule explanations will be more effective if they are offered after the implementation of the tasks. The same argument is applicable to the durability of the target structures in the long run. The current study also raises the awareness of EFL teachers in multilingual contexts that beginning bilingual learners have the capacity to benefit FFI procedures (both early and delayed) better than their monolingual counterparts do. This should be taken into account not only in language instruction but also in language assessment.

References

Anderson, J. (1982). Acquisition of cognitive skill. *Psychological Review,* 89, 369–406.

Andrews, K.Z. (2007). The effects of implicit and explicit instruction on simple and complex grammatical structures for adult English language learners. *TESL-EJ*, 1, 1-15.

Cenoz, J., and F.J. Valencia. (1994). Additive Trilingualism: Evidence from the Basque Country. *Applied Psycholinguistics* 15, 195-207.

DeKeyser, R. (1998). Beyond focus on form: Cognitive perspectives on learning and practicing second language grammar. In C. Doughty, & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 42–63). New York: Cambridge University Press.

DeKeyser, R. (2003). Implicit and explicit learning. In C. Doughty, & M. Long (Eds.), *Handbook of second language acquisition* (pp. 313–348). Oxford: Blackwell.

DeKeyser, R. M. (1995). Learning second language grammar rules: An experiment with a miniature linguistic system. *Studies in Second Language Acquisition* 17, 3, 379–410.

DeKeyser, R. (2007). Situating the concept of practice. In R. DeKeyser (Ed.), *Practicing in a second language: Perspectives from applied linguistics and cognitive psychology* (pp. 1–18). New York: Cambridge University Press.

Ellis, R. (Ed.). (2001). *Form-focused instruction and second language learning*. Malden, MA: Blackwell Publishers.

Ellis, R. (2002). Does form-focused instruction affect the acquisition of implicit knowledge? A review of the research. *Studies in Second Language Acquisition* 24, 2, 223–36.

Ellis, R. (2008). *The Study of Second Language Acquisition*. Second Edition. Oxford: Oxford University Press.

Ellis, R. (2012). *Language Teaching Research and Language Pedagogy*. Malden, Mass: Wiley Blackwell.

Ellis, R; S, Loewen& R. Erlam. (2006). Explicit and implicit corrective feedback and the acquisition of L2 grammar. *Studies in Second Language Acquisition* 28:339-68.

Erlam, R. (2000). The effects of deductive and inductive instruction on the acquisition of direct object pronouns in French as a second language. *The Modern Language Journal* 87, 242–260.

Graaff, R. de. (1997). The Esperanto experiment: Effects of explicit instruction on second language acquisition. *Studies in Second Language Acquisition* 19, 2, 249–76.

De Graaff, R., & Housen, A. (2009). Investigating the effects and effectiveness of instruction. In Long, M.H., & C.J. Doughty (Eds.), *Handbook of language teaching* (pp. 726–755). Oxford: Blackwell.

Housen, A. et al. (2005). Rule complexity and the effectiveness of explicit grammar instruction. In A. Housen& M. Pierrard (eds.), Investigations *in instructed second language acquisition* (pp. 207–41). Berlin: Mouton de Gruyter.

Housen, A., & Pierrard, M. (2005). Investigating instructed second language acquisition. In A. Housen& M. Pierrard (Eds). Investigations in instructed second language acquisition (pp. 1-27). Berlin: Mouton de Gruyter.

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

Jessner, U. (2006) *Linguistic awareness in multilinguals: English as a third language*. Edinburgh: Edinburgh University Press.

Kim, J. (2012). The optimal condition for form-focused instruction: method, target, complexity and types of knowledge. A dissertation study. Washington, DC. Georgetown University,

Kim, J. (2014). Timing of form-focused instruction and development of implicit vs. explicit knowledge. English Teaching, 69(2), 123-147.

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

Loschky, L., & Bley-Vroman, R. (1993). Grammar and task-based methodology. In G. Crookes & S. Gass (Eds.), *Tasks and language learning: Integrating theory and* practice. Clevedon: Multilingual Matters.

Lyster, R. (1998). Recasts, repetition and ambiguity in L2 classroom discourse. *Studies in Second Language Acquisition.*20, 51-80.

Mackey. A. (1999). Input, interaction and second language development: an empirical study of question formation in ESL. *Studies in Second Language Acquisition*, 21:577-87.

Modirkhamene, S. (2008). Metalinguistic Awareness and Bilingual vs. Monolingual EFL Learners: Evidence from a Diagonal Bilingual Context. *The Journal of Applied Linguistics* Vol. 1, No.1

Nassaji, H. (2016). Research Timeline: Form-focused instruction and second language acquisition. *Language Teaching*, 49, pp 35-62.

Nassaji, H. & Fotos, S. (2004). Current developments in research on the teaching of grammar. *Annual Review of Applied Linguistics* 24, 126–145.

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

Norris, J. M., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*50, 417–528.

Norris, J. M. & Ortega, L. (2001). Does type of instruction make a difference? Substantive findings from a meta-analytic review. *Language Learning,* 51, 157-213.

Prabhu, N.S. (1987). *Second language pedagogy*. Oxford: Oxford University Press.

Raimes, A. (2002). Errors: Windows into the mind. In G. DeLuca, L. Fox, M. Johnson, & M. Kogen (Eds.). *Dialogue on writing: Rethinking ESL, basic writing, and first-year composition* (pp. 279–287). Mahwah, NJ: Lawrence Erlbaum.

Robinson, P. (1996). Learning simple and complex second language rules under implicit, incidental, rule-search and instructed conditions. *Studies in Second Language Acquisition* 18, 1, 27–68.

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

Richards, J. C & Reppen, R. (2014). Towards a pedagogy of grammar instruction. *RELC Journal*, 45(1), 5 –25.

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*11, 17–46.

Schmidt, R., &Frota, S. (1986). Developing basic conversational ability in a second language: A case study of an adult learner of Portuguese. In R. Day

(Ed.), *Talking to learn: Conversation in a second language* (pp. 237-326). Rowley, MA: Newbury House.

Soleimani, H. et al. (2015). Effect of explicit and implicit instruction on implicit knowledge of English past simple tense. *International Journal of Asian Social Science,* 5(5): 257-265

Spada, N. (1997). Form-focused instruction and second language acquisition: A review of classroom and laboratory research. *LanguageTeaching Abstracts*, 30. 73-87.

Spada, N. (2014). Isolated and Integrated form-focused instruction: Effects on different types of L2 knowledge. *Language teaching research*, 18 (4), 453-473.

Spada, N., & Lightbown, P. M. (2008). Form-instruction: Isolated or integrated? *TESOL Quarterly*, 42, 181-207.

Spada, N. and Tomita, Y. (2010). Interactions between type of instruction and type of language feature: A meta-analysis. *Language Learning*, 60(2): 263-308.

Tammenga-Helmantel, M. et al. (2014).The effectiveness of deductive, inductive, implicit and incidental grammatical instruction in second language classrooms. *System*, 45,198-210.

Trendak, O. (2015). Exploring the Role of Strategic Intervention in Form-Focused Instruction. Switzerland: Springer International Publishing.

VanPatten, B. (1990). Attending to form and content in the input: An experiment in consciousness. *Studies in Second Language Acquisition*, 12,287-301.

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