The Temporal role in Grammatical Performance of Foreign Language Learners of English

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ABSTRACT

This study evaluates the effects of length of formal learning time on the grammatical performance of English morphosyntactic structures among Iranian foreign language learners. Among different factors affecting language learning, the length of formal language exposure or language input is introduced as an important factor in language learning process. Thus, length of receiving input exposure in the form of formal classroom instruction in the current study is carefully studied by categorizing the participants in four different groups. The participants represented different exposure time groups by having various formal instruction hours at school and/or language center. In order to investigate the role of formal learning time on the performance of the individual morphosyntactic structures, the participants were presented to a timed Grammaticality Judgment Task. The task tested eleven different morphosyntactic structures and contained 132 sentences. The participants were asked to judge the grammaticality of the sentences and do the necessary corrections if needed. Repeated Measures ANOVA and regression analyses were performed to analyse the data. Results revealed the contribution of time on the performance of the individual structures.

Keywords: Input exposure; Formal learning time; Grammaticality Judgment Task; Foreign Language Learning; Grammatical performance

INTRODUCTION

Language exposure or language input is introduced as an influential factor in the process of learning first, second or even third language. Gass (1997), as cited in Xiaohui (2010), defines input as the most important concept in the L2 acquisition process, because no one can learn a target language without receiving different kinds of input. Xiaohui (2010:91) states that "input provides the linguistic data that a developing linguistic system needs to actualize acquisition. When learners receive input, they offer their developing linguistic system the data it needs to start the process of acquisition".

A big difference between natural and instructional language learning settings is the unlimited input available to the learners in the second language settings, which results in the conscious or unconscious language learning process; while in a foreign language learning setting like Iran, classroom input is the only opportunity for the learners to learn a target language; classrooms are the only place most of the foreign language learners can receive the L2 exposure, and little exposure opportunities outside the classrooms make the quality of L2 input very significant (Barbee 2013).

Language input can be studied from various perspectives in terms of quantity, quality, and length. According to Howard (2011), the conditions of L2 exposure in both settings differ

based on the access to the input, its quantity, type, quality, intensity, frequency and duration of input exposure. Amount of exposure to L2 input is described as an important factor in the L2 learning process (Krashen 1982, Long 1985, Barbee 2013). Among all mentioned factors, the focus of this study is on the length of receiving input in the form of formal exposure hours in a foreign language learning setting like Iran, where learners have access to the instructional input only in formal classes such as schools and language centers.

Another focus of this study is the grammatical performance of the foreign language learners. Grammar proficiency is an important skill for every language learner, no matter whether s/he is in a second or foreign language setting. Defined as grammatical categories or linguistic units that have both syntactic and morphological properties, morphosyntactic structures describe the characteristics of words (Crystal 1983). These structures can be problematic for native speakers as well as second or foreign language learners. For example, the use of the third person singular -s in the early stages of language acquisition is described as problematic, even among the children of native speakers of English (Theakston et al. 2003, Finneran and Leonard 2010). In addition, Farsi Doust (2008) states that simple present and simple past tense are claimed to be problematic for Iranian EFL learners.

According to Oliveria (2018), in FL learning settings, learners have ongoing difficulties in learning the target language. In his opinion, this proficiency gap partly comes from factors such as lack of exposure to the target language in everyday life, limited contact with the L2 outside classroom and acquisitional deficits in certain parts of grammar. Generally speaking, in most foreign language learning settings, language learning is still focused on linguistic knowledge and more specifically on grammar and reading comprehension. Due to factors such as methodology, textbook contents and evaluation system, high school students do not learn much English and are not proficient (Rahimi et al. 2008, Maftoon et al. 2010). The importance of grammar in the foreign language learning context motivated the selection of morphosyntactic structures as the main instrument of this study. Thus, considering the influential role of grammar in the language learning, this study investigates: (1) the contribution of the length of formal exposure hours in the grammatical performance of EFL learners, and (2) the effect of two-time variables on the individual morphosyntactic structures.

LITERATURE REVIEW

LANGUAGE INPUT

Input means addresses of any kind of written or oral material that is presented to learners. According to Han (1991, p. 94), classroom input can be a rich source for foreign language learners, "As foreign language learners have few opportunities to receive a native speaker's input, there should be another way of providing them with a native speaker's input which can be comprehensible for acquisition". Based on the learners' environment, Han presents three kinds of input: interaction or natural, classroom and non-interaction input. "As the foreign language environment provides limited quality and quantity of comprehensible input from natural and classroom environments, it was hypothesized that non-interaction input may provide learners with comprehensible input that leads to acquisition" (Han 1991, p. xi).

Oliveria (2018) investigated the acquisition of the morphosyntactic and semantic features among Portuguese L2 learners of German by the use of an input-based explicit approach in teaching grammar. A vocabulary test, a grammaticality judgment task and a production test were used in the pretest, then a pedagogical intervention was conducted and

finally a posttest evaluated the effects of Processing Instruction of the target forms. Oliveria came to this conclusion that input processing can be beneficial in the learning of a target language. "Grammar instruction, in particular, can profit from both input-based and output-based models of acquisition" (p. 106). In addition, in instructional environments, it is emphasized to balance between fluency and accuracy

Hasanzade and Narafshan (2016) studied the impact of the quality of input on the grammar of the second language knowledge among young children. The research was carried out with 40 female infants and the participants were presented with two sets of tests (Oxford Placement and Grammar). The results revealed the relationship between grammar learning and input quality. Considering the L2 grammatical achievement, instructional input is proved to be superior to natural input. The authors also claim that this finding rejects the acquisition/learning hypothesis by Krashen which states that being exposed to natural input results in better L2 acquisition. It is concluded that instructional input can assist EFL children to perform better in case of L2 grammar; in other words, the amount of input a second language learner in a naturalistic setting would attain during one year equals to more than 18 years in a formal instructional setting (Hassanzade and Narafshan 2016).

Rothman and Guijarro-Fuentes (2010) studied the role of input quality in naturalistic and instructional settings. They state that learners in L2 instructed settings clearly receive less amount of input compared to those who are learning the target language in a naturalistic language learning setting because in naturalistic settings, learners have access to the native people outside the class. Thus, they claim, the quality of input is introduced as one of the main variables which shows the differences between the two learning settings: different amounts of input results in different competence outcomes. However, they also claim, learners in instructed settings receive better input quality: the input includes syntactically, semantically and morphologically accurate structures, while in naturalistic settings learners receive non-standard input. This highlights the importance of the instructed input in formal classes in foreign language learning settings.

IMPORTANCE OF GRAMMAR

Of all language components, grammar can be considered as the foundation in communication and language learning. Meanings can be conveyed more easily, if grammatically correct sentences are used. In the past, teaching grammar was the most essential part of language instruction to the extent that other aspects were somehow ignored. It was believed that by knowing grammatical rules, learners could use the language for communication. However, with the rise of the notion of communicative competence, knowing the rules of grammar was associated with knowing how to use these rules in the real communication (Richards and Renandya 2002). Oliveria (2018, p. 7) states that the inclusion of grammar is essential, because "it consists an important part of classroom instruction and decreases the risk of early fossilization".

Generally speaking, grammar is divided into two different areas: morphology, which studies how smaller units make words, and syntax, which studies the formation of meaningful phrases, clauses and sentences out of words (Rahimy & Moradkhani 2012). Simply put, morphosyntax is introduced as a part of morphology which includes the relationship between morphology and syntax; it explains the reason a word is included in a specific grammatical category (Ochieng 2013). Ochieng describes morphological aspects and syntactic structures as inseparable units because the arrangement of the syntactic structures is determined by the morphological forms. In other words, the importance of the morphosyntactic structures comes from the idea that ungrammatical structures will be produced if the morphological elements in syntax are ignored.

Accordingly, grammar instruction is introduced as one of the special features in EFL settings and obtaining a good knowledge of the L2 grammar would accelerate the L2 learning process (Rahimy & Moradkhani 2012). Language teaching in high schools in Iran is mostly grammar-based, while language use is ignored, partly because of the EFL learning context (Rahimi et al. 2008). According to Rahimy and Moradkhani (2012, p. 149) acquiring native-like competence, as one of the goals of L2 learning, is possible through possessing and utilizing "a finite number of rules to produce and interpret an infinite number of sentences". In FLL settings, lack of sufficient practice time at schools results in focusing on grammar and ignoring communicative skills; then the use of the target language in the classroom would be restricted and as a result the focus would be mostly on grammar and reading comprehension.

GRAMMATICALITY JUDGMENT TASK (GJT)

One of the ways for finding the order of mastery of different grammatical structures is by Grammaticality Judgment Task: "to investigate the order in which children master various grammatical constructions" (McDonald 2008, p. 248). Garcia Mayo (2003) mentions that judgments of the grammaticality of the sentences, originating from intuitions, have an essential role in developing theoretical linguistics. In this special kind of task, the well-formedness of the grammatical and ungrammatical sentences is judged by the learners. (McDonald 2008, p. 248).

Gass (1985), as cited in Garcia Mayo (2003, p. 97), states that GJT can be used in three different areas: (1) Learners may be asked to correct the sentences which are judged to be ungrammatical; (2) "sometimes learners judge individual sentences", or "provide preference judgments (i.e., select the more appropriate sentence among the ones provided)"; (3) "Learners are given a number of possible responses to choose from (responses may be dichotomous- a sentence can be either grammatical or ungrammatical)".

Accordingly, as Garcia Mayo (2003) describes, GJ Tasks are of two types: 1. Standard Grammaticality Judgment Task, in which as much time as necessary is given to the subjects to complete the task and at the same time they are also asked to correct the ungrammatical sentences or even explain why they think so. 2. Timed Grammaticality Judgment Task, while the subjects are given a limited amount of time to judge between thirty and more than two hundred sentences.

Garcia Mayo (2003) describes GJ Tasks as one of the metalinguistic activities which are 'linguistic intuitions'. She defines metalinguistic awareness as "the ability on the part of the speaker to view language in and of itself, and to be able to perform certain operations on it" (p. 98). By the use of metalinguistic awareness, L2 learners can self-correct, compare native and target language and even monitor their own output; in other words, in order to understand the learner's development, grammaticality judgments can be helpful (Garcia Mayo 2003). The tasks are reflections of the learner's implicit knowledge which is called "the intuitive knowledge of language, but additional tasks, such as correction of errors, reflect explicit, analysed knowledge that represents consciously held insights about language" (Garcia Mayo 2003, pp. 98-99).

Verissimo et al. (2018) investigated the role of age of acquisition in the processing of two subtypes of two linguistic morphology; inflection and derivation operations. The participants were 93 Turkish-German bilinguals, who acquired German at different ages. The four predictors were AOA, length of exposure to German, proficiency (i.e., German competence, lexicon and grammar which were assessed by a 30-item multiple-choice test) and everyday use of German. The effect of age of acquisition on inflectional priming was proved and based on the results, native-like morphological operations could be acquired throughout life, but when acquiring L2 began before age of 5, inflectional priming would

decrease with the increase of AOA. Verissimo et al. came to this conclusion that acquisition of morphosyntactic rules is controlled by maturational factors and no sensitive period for language acquisition, but it exists for certain kinds of grammatical knowledge.

Rahimy and Moradkhani (2012) studied the effect of GJT on the learners' grammatical patterns. The participants were 60 junior undergraduate students who were divided into experimental and control groups. They were assigned a sentence word order pretest, then the control group received a treatment and both groups had a posttest of English grammatical patterns. The results showed that by using grammaticality judgment tasks in teaching grammar, learners would have a better grammatical performance. Thus, the authors claim that a relationship is established between language use and language instruction.

In short, since GJT is introduced as one of the ways of finding the order of mastery of different grammatical structures, it is used in this study to investigate the main objective of this study; that is, to study the performance of the EFL learners on the individual morphosyntactic structures in order to find the significant differences between different variables of Formal Learning Time, i.e., Formal School Time, and Formal Institution Time, and each structure between groups. The current study also hopes to determine the effects of Formal Learning Time on the performance of these structures. Finding the answers to these issues would help teachers to know how to deal with these morphosyntactic structures; some structures may need more focus and time to practice.

THEORETICAL FRAMEWORK

The theoretical framework of this study is based on Usage-Based theory which focuses on input exposure, experience, actual use of language and frequency of items (Kang 2005). Belonging to cognitive linguistics, a Usage-Based linguistic (proposed by Langacker 1987) is "a form of linguistic analysis, that is, that takes into account not just grammatical structure, but that sees this structure as arising from and interacting with actual language use" (Geeraerts and Cuyckens 2007, p. 17). Based on this theory "… input is a rich source of information for identifying grammatical regularities and children have a remarkable ability to perform complex computations over statistical information displayed in the input" (Kang 2005, p. 3). Nelson (2006) states that language and language acquisition are usage-based and its structure emerges from using language.

Diessel (2017) introduces the frequency of occurrence as one of the aspects with an important role in the usage-based model that facilitates the processing and activation of words and constructions. Since grammatical structures are deduced from L2 learner's experience with the target language, Diessel defines the relationship between grammatical and lexical knowledge as the other significant aspect in the usage-based linguistics. "Parallel to the rise of the usage-based linguistics, cognitive psychologists began to emphasize the importance of experience and item-specific grammatical knowledge for language acquisition, sentence processing, utterance planning and speech production." (Diessel 2017, p. 3).

From Croft's (2007, p. 499) point of view, in Usage-Based models language use specifies grammatical representations: "Usage-Based model is a model of grammatical representation in which language use determines grammatical representation. Specifically, frequency of use and similarity of form and meaning are the determining factors for the structure of grammatical knowledge in the mind". Usage-Based model "focuses on the actual use of the linguistic system and a speaker's knowledge of this use …, it claims that linguistic units are abstracted from usage events, that is, the actual instance of language use" (Putz 2007, p. 1142).

METHODS

PARTICIPANTS

The research was conducted in pre-university classrooms during the last academic year for upper secondary school students in Iran. The participants were 120 eighteen-year-old female students who were placed into four groups based on their total number of learning hours at school and/or language centers. They were controlled in receiving any private lessons after school, daily usage of English outside of school and tutoring at home. Group A were public school students (who learnt English for 792 hours), Group B were private school students (who learnt English for 1272 hours), and Groups C and D were students at public and private schools, respectively, with extra instruction hours at language centers. 30 were included in each group. Table 1 illustrates the group composition.

TABLE 1. Group explanation of the participants' Formal Learning Time

Participants	Exposure period	Exposure hours No.
Group A	7 years	792
Group B	11 years	1272
Group C	7 years	792 & more
Group D	11 years	1272 & more

INSTRUMENTS

In order to place the participants into the four groups, first a demographic questionnaire was used to calculate the overall number of exposure hours and years in the instructional English classes at school and at language centers. The instruments also helped the researchers to homogenize the participants in choosing the ones with zero private lessons after school, tutoring at home and daily usage of English outside of school. The information on official contact hours with the English language at public and private schools is verified by the Ministry of Education office.

The main test was a revised version of Johnson and Newport's (1989) GJT (by Dekeyser in 2000). It evaluated the basic knowledge of the learners' morphosyntactic structures which are claimed to be problematic for foreign language learners (Larson-Hall 2008). The task tested the participants' knowledge on 11 structures: plurals, past tense, particle movement, yes/no questions, wh-questions, third-person singular, subcategorization, pronominalization, present progressive, determiners and word order. The following table (Table 2) shows one example of each structure. The kind of judgment used for evaluating the participants of this study is binary: a division between grammatical and ungrammatical sentences (Lau et al. 2014).

TABLE 2. Title and examples of the eleven morphosyntactic structures

Morphosyntactic structure	Ungrammatical sentence
Word order	*The ball the boy caught.
Yes/no questions	*Danced Bill at the party last night?
Subcategorization	*I want you go to the store now.
Particle movement	*The nurse looked the children after.
Past tense	*John sing for the church choir yesterday.
Determiners	*Teacher's mother had an accident.
Plurals	*A shoe salesman sees many foots every day.
Pronominalization	*The girl cut himself on a piece of glass.
Present progressive	*Janet is wear the dress I gave her.
Wh-questions	*What Martha is bringing to the party?
Third-person singular	*Mrs. Smith clean her house every Wednesday.

PROCEDURE

The instruments were presented sequentially; first the demographic questionnaire was presented in one session, then the participants were given the GJT in another session. The first session lasted 10 minutes and the second one 90 minutes. Prior to doing the main test, the participants were asked to read the test instruction and test samples presented on the top of the test booklets. The test was designed in a format that needed the participants to both judge the grammaticality of the sentences (by a tick "✓" or cross "X" on the box provided) and also provide the correct grammatical form for the ungrammatical sentences. The participants needed to add, remove or change the order or place of the words or phrases in order to change an ungrammatical sentence into a grammatical sentence. It is worth mentioning that subtle changes were made to the original version of the test to become lexically and culturally more understandable for Iranian learners.

DATA ANALYSIS AND RESULTS

There were two levels of independent variables in this study: school type (public or private) and language center exposure (i.e., with or without language institution exposure). It is worth mentioning that the Total Formal Hour is composed of two-time variables: Formal School Hour (henceforth, FSH), that is 792 in public and 1272 in private schools, and Formal Institution Hour (henceforth, FIH), that is the number of hours each participant spent on learning English at language centers/institutions. The amount is different among those who had attended language centers and were introduced as 'with language institution exposure'. Prior to doing the analyses, preliminary checks were conducted to ensure that there was no violation of the assumptions of normality, linearity and homogeneity of variance and homogeneity of regression slopes.

The purpose of this study is to investigate whether length of formal exposure time in the form of formal exposure hours could contribute to the grammatical performance of EFL learners, thus two statistical analyses were performed: group differences was studied by a Factorial Repeated Measures ANOVA (see 'between-group differences' section) and the effect of the time variables on the individual morphosyntactic structures was studied by eleven regression analyses (see 'effect of time on structures' section). To do the analyses, the GJT was broken down into the eleven morphosyntactic structures and the data were analysed for each structure and each group. Since some of the morphosyntactic items were not equally distributed throughout the GJT, (for example, there were 12 items for determiners, while 8 items checked third person singular), the scores were calculated on base 100 to have equal distributions of the scores. 'Score' was the dependent variable and 'group' was considered as the independent variable.

BETWEEN-GROUP DIFFERENCES

In order to examine the performance of the participants on the individual structures based on different lengths of exposure, i.e., the performance of groups, a Factorial (Two-Way) between subjects Repeated Measures ANOVA was performed. By this analysis, the level of difficulty between structures for each group was specified. The dependent variable was the responses to the eleven morphosyntactic structures and the factor was 'group'. The results indicated that the means of the eleven structures differed statistically between groups and there was a significant effect for structures, F (9.02, 1046.86) = 6.44, $p<.05$, eta^2 = .053. The

means and F-statistics for the structures, listed in no particular order, are presented in Table 3 below.

TABLE 3. Means, F-statistics and ρ-value of all structures amongst the four groups

Structures	Means of the groups				*F*- statistics (3,116)	ρ-value
	A	B	C	D		
Third person singular	41.66	43.33	64.16	59.58	13.89	<.001
Plurals	39.72	38.61	52.5	64.44	16.56	<.001
Determiners	37.77	48.61	53.05	70	24.58	<.001
Present Progressive	37.27	43.03	64.24	64.84	20.64	<.001
Past tense	34.16	40.55	57.22	59.44	19.86	<.001
Particle movement	46.38	45.83	64.44	67.77	19.68	<.001
Subcategorization	40	48.05	60.83	69.16	20.61	<.001
Pronominalization	39.39	52.12	56.66	62.42	9.27	<.001
Yes/no questions	43.61	48.33	65.55	74.44	28.54	<.001
Wh-questions	46.66	51	66.66	66.66	12.14	<.001
Word order	44.16	46	64.16	67.83	20.84	<.001

ρ -value<.001

The results indicated that the participants did learn the eleven morphosyntactic structures in the four groups differently. To find the relative difficulty of various structures, the means of each structure were studied. Examination of the means amongst the four groups, shown in Table 3, suggests that the items with group D, i.e., private school students with extra exposure at language center, as the highest mean are plurals, determiners, present progressive, past tense, particle movement, subcategorization, pronominalization, yes/no questions and word order.

In addition, the item with group C, i.e., public school students with extra exposure at language center, as the highest mean is third person singular and the item with groups C and D as the highest mean is wh-questions. Except for two items (plurals and particle movement), the lowest mean of all structures belonged to group A, i.e., public school students without any extra exposure hours at language center.

The results of the analyses studying the grammatical performance of the four groups of participants on 11 different morphosyntactic structures individually prove that there is a significant difference between Formal Learning Time and the grammatical performance of the four groups. In other words, length of time seems to hold an advantage over the grammatical outcome of Iranian EFL learners. Those who had more exposure hours at school and language centers (Group D as representatives of having 1272 instruction hours at school and extra instruction hours at language centers) outperformed the learners with fewer learning hours (Group A with having only 792 instruction hours at school). The following section studies the effect of the length of exposure time in significantly predicting the grammatical performance of the individual morphosyntactic structures.

EFFECT OF TIME ON STRUCTURES

To examine to what extent the two-time variables (i.e., FSH and FIH) affect the performance of each structure, eleven linear regression models were applied to study the degree of the contribution of the Formal Learning Time on the performance of each of the eleven morphosyntactic structures. Otherwise, the interest was to specify whether Formal Learning Time, in the form of FSH and FIH, accounted for variance in performance of each structure.

The findings revealed that the two predictor variables differently affected the performance of the eleven morphosyntactic structures. The results of the eleven regression models as the values of F-statistics, unstandardized coefficient (*B*) and standardized coefficient (*Beta)* are presented in Table 4.

TABLE 4. Results of regression analyses on the eleven morphosyntactic structures

Structures	FSH				FIH				F-statistic
	B	Beta	t	p	B	Beta	t	P	
Subcategorization	.002	**.17***	2.24	.02	.002	.37*	2.24	.001	23.47
Determiners	.003	**.33***	4.44	0	.002	.32*	2.91	.004	24.77
Plurals	.001	.109	1.29	.19	.002	.32*	2.62	.01	12.86
Particle movement	-9.1	-.01	.13	.89	.002	.32*	2.68	.008	17.95
Present progressive	0	.02	.24	.81	.001	.25*	2.1	.03	15.39
Past tense	.001	.06	.78	.43	.001	.27*	2.26	.025	15.93
Pronominalization	.002	**.19***	2.21	.02	.001	.14	1.12	.26	9.54
Yes/no questions	.001	.102	1.38	.16	.001	.26*	2.38	.01	28.52
Wh-questions	8.3	-.01	.12	.89	.001	.12	1.02	.31	11.53
Word order	1.7	-.001	.01	.98	.002	.19	1.63	.105	19.91
Third person singular	.001	-.09	1.05	.29	.001	.17	1.35	.17	9.24

significant at ρ <0.001

As shown in Table 4, the results of the ANOVA analysis revealed that F-statistics and the corresponding ρ-value is highly significant (<.001) for all variables. F-statistics is large and ρ-value is highly significant for these structures: yes/no questions, determiners and subcategorization, which indicated that the slope of the estimated linear regression model line is not equal to zero confirming that there is a linear relationship between the variables.

Table 4 also shows which time variables (i.e., FSH and FIH) had statistical significant impacts on explaining the dependent variable (i.e., the morphosyntactic structures). Based on the *Beta* (i.e., standardized coefficient) values obtained, the *Beta* coefficient was significant (*) for these structures and these time variables (*p* <.001): the largest *Beta* coefficient for FSH belongs to determiners which means that this variable makes the strongest contribution on explaining the dependent variable (i.e., determiners), when the variable explained by all other predicted variables in the model is controlled for. The *Beta* value for pronominalization is the second highest, followed by subcategorization. The Beta value for third person singular is the smallest and indicates that it made the least contribution. The negative symbol indicates negative linear relationship between the predictor and the dependent variable, meaning that with the increase of FSH, the standardized coefficient (i.e., *Beta*) value of third person singular decreased. It means that FSH did not predict the performance on third person singular, but did on determiners, pronominalization and subcategorization.

Also, the largest *Beta* coefficient for FIH belongs to subcategorization which means that this variable makes the strongest contribution on explaining the dependent variable (i.e., morphosyntactic structure). The *Beta* values of plurals, determiners and particle movement are the second highest, followed by yes/no questions. The Beta value for wh-questions is the smallest and indicates that it made the least contribution. Clearly, FIH predicted the performance of more morphosyntactic structures (i.e., seven) than FSH (three structures).

In particular, this part focused on finding whether length of formal learning time in the form of the two-time variables (i.e., FSH and FIH) accounted for variances in the learners' performance. The results also revealed that none of the predictor variables (i.e., FSH and FIH) have a statistically significant impact on explaining wh-questions.

DISCUSSION

The current study examined the effects of learning time in the form of two-time variables (i.e., Formal School Hour and Formal Institution Hour) on the grammatical performance of EFL learners by a grammaticality judgment task. The four groups of participants received different instruction hours at school and/or language centers. The scores on the individual morphosyntactic structures amongst the four groups were compared and the analysis found

main effects of both groups and structures. Between-group analysis revealed that the group with longer exposure hours at school and language center (i.e., Group D) showed the highest mean of every structure, except for third person singular at which public school students with institution exposure, i.e., Group C, got the highest mean. This shows that, except for one structure, the group with the largest number of exposure hours at school and language center, i.e., private school students with extracurricular hours, learned all structures better during the time spent at school and supplementary classes at language centers, meaning that length of time could have a positive impact on the learners' grammatical performance which may lead to better grammatical learning. However, in Group A with the shortest exposure hours, except for plurals and particle movement, all other structures showed the lowest mean amongst all four groups which may also emphasize the impact of length of time on the grammatical learning, i.e., fewer number of exposure hours at instructional classes may result in the learners' grammatical weakness.

The order of structure difficulty gained by this study was in line with the results gained by McDonald (2006). The order of difficulty by late L2 learners in McDonald (2006) showed that word order, yes/no questions and wh-questions were superior to past tense and articles. Similar results were observed in the outcomes of this study within each group. Group A, i.e., learners with the fewest exposure hours, showed better performance on wh-questions and particle movement; a better performance on pronominalization and wh-questions was observed in Group B; Group C had a better performance on wh-questions and yes/no questions; and Group D, i.e., the group with the largest number of exposure hours, had high means on yes/no questions and determiners. Similar to the results in McDonald (2006), in the current study, learners had difficulties with past tense (Groups A, B and D), third-person singular (Group D), determiners (Group C) and present progressive (Group A). McDonald (2006) points out that according to the past research, L2 learners had difficulties with plurals. The results of this study also indicated that learners in Groups B and C had difficulties with plurals as well. Moreover, McDonald (2008:262) states that "adult levels of grammaticality judgments were achieved early for word order violations and late for third person singular agreement. For irregular forms, plurals were mastered before past tense."

Meanwhile, taking a close look at the mean differences within groups amongst structures (see Table 3) shows that in public schools, i.e., Groups A and C, wh-questions have got the highest mean amongst all structures, showing that clearly, wh-questions were the easiest structure and they were taught well in public schools. According to the findings, past tense and plurals need more attention in both school types because these two structures got the lowest mean in all four groups and were introduced as the hardest structures. Therefore, more time and practice should be spent on these two morphosyntactic structures.

Another objective of this study was finding the level of difficulty of the morphosyntactic structures. Thus, GJT was broken down into the eleven structures and the results revealed that two structures were significantly more problematic for the participants, namely, past tense and plurals, which supports the findings in McDonald (2008). McDonald (2006) states that in terms of difficulty, previous studies showed that adult L2 learners have difficulties with plurals and past tense and these two structures are more delayed specially amongst children who are learning English as their second language. The results are also in line with a study in Iran, Farsi Doust (2008) also reported simple present and simple past as the problematic structures for Iranian EFL learners. According to the results of the current study, these two structures are hard for the participants in both types of school, i.e., public and private schools, then teachers should focus on these two structures and practice them more.

Different factors are explained as the reasons for the difference in the time a certain grammatical item is acquired. McDonald (2008), points out that syntactic and semantic

complexity of the morphemes determines the order of their acquisition in English. According to McDonald (2008), the order of the acquisition of different morphosyntactic structures depends on some factors. McDonald (2008, p. 265) states that morpheme production is affected "by a combination of five factors, including frequency, phonological salience, semantic complexity, morphological regularity and syntactic category". Verissimo et al. (2018) state that maturational factors affect morphological acquisition.

The difference between the current study and the study by McDonald (2008) is that according to McDonald, different mastery is caused by learners' characteristics, such as 'poor phonological ability' and 'low working memory span', while in the present study, the length of formal exposure hours is highlighted as one of the influential reasons. In fact, the learners with longer formal exposure time, both at school and language centers (Group D), outperformed the other participants and except for one structure, i.e., third person singular, they had higher scores in every structure. The inconsistency across the performance of the task amongst groups, according to McDonald (2006, p. 382), is "due to variable accessibility to and use of relevant grammatical knowledge". However, McDonald (2006) states that difficulties in underlying levels of cognitive processing can be the reason for variable accessibility and grammatical processing. According to McDonald, age of acquisition is not the only determination of L2 learners' grammatical performance; in the same vein, in a study by Shojamanesh, Tan and Khazriyati (2014), the effect of starting age on the grammatical performance of Iranian EFL learners was investigated and positively approved.

Predicting the learners' performance on each individual grammatical structure in the task (GJT) was also studied by 11 linear regressions. The results revealed that the production of subcategorization, particle movement, determiners, plurals, present progressive, past tense and yes/no questions was significantly predicted by Formal Institution Hour, while the production of determiners, pronominalization and subcategorization was significantly predicted by Formal School Hour. According to McDonald (2008), progressives and regular past tense were significantly predicted by working memory, while articles, yes/no questions, regular plurals and irregular past tense were significantly predicted by phonological ability. The results of the regression models prove that there is a positive contribution of Formal Learning Time to the learners' grammatical performance, while plurals and past tense are also shown as the more problematic structures for the learners. In other words, this could highlight the positive impact of more exposure and instruction hours on the grammatical performance of EFL learners. It is worth mentioning that formal classes at schools and language centers are the only opportunities for EFL learners to have access to authentic language learning materials.

According to Richards and Renandya (2002), teachers can use grammar-based methodologies like Presentation-Practice-Production formats to teach grammatical structures; in addition, for teaching structures, teachers should mix grammar-focused and task-focused instructions. Moreover, teachers should provide situations at which meaning is negotiated and results in meaningful communications. In order to draw learners' attention to special linguistic features of input, Richards and Renandya (2002) propose these means: frequency of exposure, simplifications of input, explicit and implicit instruction and consciousness-raising. In teaching structures, teachers should also bear in mind the effect of these factors: the level of difficulty (complexity), sufficiency of experience (frequency), fulfilling a communicative requirement (need) and noticeability (saliency). Moreover, by confirming the positive effects of the use of grammaticality judgment tasks on the learners' grammatical knowledge, Also in teaching grammar, input-based models of acquisition can be used (Oliveria 2018, Hasanzade and Narafshan 2016). Rahimy and Moradkhani (2012) presented a model for teaching sentence word order to foreign language learners, named GJTT (Grammaticality Judgment as Teaching Task).

CONCLUSION

To solve the issue of the grammatical weakness of Iranian EFL learners, this study obtained detailed information about the length of input exposure and its effect on the EFL learners' grammatical performance in the formal learning settings (curricular instruction at school and extracurricular instruction at language centers). By performing different statistical analyses, positive effects and significant differences between the grammatical performance (in the form of individual structures) and the time of learning (in the form of formal school hour and formal institution hour) imply that input exposure can affect grammatical learning. The more instructional time the participants spent on language learning both at school or language centers, the better grammatical performance was achieved; the participants at private schools with institution exposure outperformed other participants. In addition, there were significant differences between formal exposure time and the performance of each structure.

Based on the results, following pedagogical implications can be drawn. In general, participants from different groups with various exposure hours had trouble with past tense and plurals as well as third person singular and present progressive. Thus, keeping these erroneous structures in mind would help researchers and English teachers find helpful ways, minimize grammatical mistakes and maximize the grammatical learning process. In addition, since the results proved a significant relationship between formal learning hours and learners' grammatical performance, it can be suggested that increasing the formal instruction hours and performing sufficient practice would help learners experience a better grammatical learning process. Additionally, this can be especially helpful for teachers by knowing that some grammatical structures need more attention and extra exercises.

Moreover, the findings of this study confirm past results emphasizing the importance of language input in foreign language learning contexts (Larson-Hall 2008, Muñoz 2011). As Muñoz (2011, p. 129) points out, "… in an instructed language learning setting, time for learning is positively linked to successful learning." According to the findings of this study, the significant effect of instructional input in the form of formal learning time in the long run is confirmed; in other words, learning time can positively lead to higher scores and in this case, better grammatical performance.

As mentioned earlier, in formal language instruction settings, EFL learners do not significantly benefit from the length of language exposure at schools; this is why language centers make contribution to enhance learners' language abilities. On the other hand, according to earlier studies, there are two reasons Iranian high school graduates are not proficient at using English properly; the insufficient exposure time at schools, especially in public schools, and the late start of learning English (Rahimi et al. 2008, Abbasi & Lotfi 2009, Maftoon et al. 2010, Rahimy & Moradkhani 2012). The results of this study support both claims and confirm that 'time on learning' is a crucial factor in a language learning context like Iran. Thus, 'time distribution' can be claimed to be one of the main factors affecting the learning process in Iran and clearly the current time syllabuses need modifications in order to improve the grammatical performance amongst Iranian EFL learners. Apparent reforms are needed and the Ministry of Education should place emphasis on developing more useful syllabi, enhancing the temporal role and its positive influence on the learners' grammatical progress. No doubt, the amount and type of language exposure affects language learning (Olmedo 2015). Moreover, the data presented by the in-depth analysis of individual morphosyntactic structures make a contribution to the field of FLL. The findings add valuable information to the role of time in the grammatical performance of EFL learners.

Clearly, practice leads to performance improvement (Serrano 2007) and the first step in learning is time on task. Thus, for having an effective instruction, especially in a foreign

language learning setting, as much time as needed should be provided. As a matter of fact, hours, years, and even decades are needed for a skill to be learnt proficiently (Anderson 1993 as cited in Serrano 2007). More instruction time would lead to more learning opportunities and could narrow the gaps in a learner's performance (Huebener et al. 2016). By increasing the amounts of input, more coherent language system would be created; then, bigger amounts of input let early starters use "their more integrated knowledge in an effective way" (Larson-Hall 2008, p. 57). One way of providing EFL learners with more amounts of input can be prolonging the current distribution of time in English classes, or by starting teaching at a younger age (Shojamanesh et al. 2014). Assigning learners with carefully supervised self-paced e-learning materials of language modules at different levels can also be another useful solution.

Based on the results of this study, course planners, educators and curriculum developers can enhance the learning process in foreign language learning contexts by increasing the amount of the input received in formal classes. The outcomes of this study provide some useful insights into possible effectiveness of the input exposure, more specifically in relation to the grammatical performance. In a nutshell, amongst other influential factors in an EFL setting, the amount of language input should not be neglected. In addition, many relevant factors which can affect grammatical learning such as input quality, teaching techniques, learning skills and strategies, gender, age of testing time, age of initial learning and aptitude were excluded from the scope of this study. They can clearly be tested in other studies. It is worth mentioning that the starting age of acquisition, parents/family's education, socioeconomic status, motivation and the participants' academic performance were not controlled and should be addressed as the limitations of this study.

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