A Case Study of Iranian Students Learning English Interrogative Structures

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Abstract

Researchers have examined the process of learning a second language in adults and children who learn English as a second language. The results of the tudies indicate that second language learners generally pass through similar transitional stages which demonstrate systematic and nonsystematic variations, developmental sequences, and accuracy order. However, most of these studies have investigated L2 learning process in a natural setting. Therefore, the present study examines the process of learning English by adults as a foreign language in an EFL setting and attempts to find out the probable similarities or differences in language learning process. Data were collected from 200 adult students learning English interrogative structure. The results of this study indicated significant similarities between the learning process of the adults learning English as a foreign language and the adults and children learning English as a second language. These findings suggest that a second language is learned through similar processes. Consequently, there should be a kind of universal internal syllabus in the learning of a second language which controls the learning process independent of the environment and age of language learning.

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1. Introduction

It is claimed that language learners who have not reached a certain level of language proficiency develop similar dynamic rule-based linguistic systems during the process of second language acquisition. These transitional forms or intermediate linguistic systems are called *Interlanguage.* Interlanguage is rooted in a theory claiming that there is a latent psychological framework in the human brain, which is activated whenever one tries to learn a second language. Interlanguage theory has maintained that the learning of L2 takes place through a special process similar to the first language acquisition. In this process, whenever the learner deals with new information from different sources, i.e. their mother tongue, the target language, and the world around them, he builds up a new language system or interlanguage consistent with his knowledge. Interlanguage theory is often attributed to Larry Selinker (1972) who coined "interlanguage" for these temporary intermediate linguistic systems build up by language learners (for more recent discussion on interlanguage, see Al-khresheh, 2015; Khansir, 2012; Selinker 1992, 2014; Selinker, & Lamendella, 1980; Tarone, 2006; Xu, 2008)

Interlanguage theory has been supported by many studies on the children and adults who learn English (Achiba, 2003; Bazo & Penate, M., 2002; Cazden et al., 1975; Ellis, 1985, 1989; Felix, 1981; Irvine, 2005; Klein & Perdue, 1993; Mi, 2012; Myles et al., 1998; Ravem, 1974; Saville-Troike, 2006; Zheng, 2007). However, the majority of these studies are related either to the adults or children who learn English as a second language (ESL), i.e. in a natural environment, or to the children who learn English as a foreign language (EFL), i.e. in an institutional environment. The processes of learning English as a foreign language by adults can differ considerably from the adults and children who learn it as a second language; normally, in an institutional environment, there is less exposure to the target language and language learning proceeds more slowly than in a natural environment. Moreover, there may be some differences in the process of learning a foreign language by adults versus children. Therefore, to investigate thoroughly the interlanguage theory's claim about learning L2, it is essential to examine this theory in the adults who learn English in an EFL context as well. Hence, the present study attempted to examine the learning of English structures by the Persian speaking adults in an EFL context.

2. Literature Review

Since 1970, many studies have paid attention to the presence of interlanguage and its features in the L2 learning process. Interlanguage is *variable,* changing during the course of learning. Ellis (1997) mentioned four stages for these

changes. Interlanguage demonstrates *Accuracy Order*, i.e. how accurately each feature is produced by the L2 learners. Interlanguage displays *Invariant Developmental Sequence* in the use of particular forms. The invariant developmental sequence feature can imply that there is not a critical period for particular stages of language development, because, according to this feature, language learners from different age groups pass through the same stages during language development.

Variations in interlanguage are generally of two types: *Systematic variation* and *Non-systematic variation* (Doughty & Long 2003; Edmondson 1999; Wolfram, 1991). Systematic variation comprises the performance differences which are predictable and explainable. There are two main kinds of systematic variation: *Individual variation* and *contextual variation*. Individual variation is rooted in the factors such as age, motivation, personality and talent while contextual variation is related to those different performances which are explainable by the situational and linguistic contexts. Non-systematic variations are not predictable or explainable. These variations were also divided into two types: *Performance variation* and *free variation* (Ellis 1985, 1999; Tarone, 1988). Performance variation is the result of specific context demands and free variation occurs when a new form exists alongside another form.

Some studies have provided evidence for the different types of variations observed in interlanguage. These studies are on the learners who learn L2 as a second language, i.e. in a natural environment. In a cross-sectional study, Bailey, Madden and Eisenstein (1976) observed the adults who used simple and progressive verbs for an identical range of functions over an extended period of time. Ravem (1974) reported the presence of free variations in the data collected from one of his Swedish participants learning English as a second language, namely, Redone. Wagner-Gough and Hatch (1975) also reported such a phenomenon in the data produced by their participants. In addition, Ellis (1999) and Gass and Selinker (2008) have also reported cases of free variation. Huebner (1983) examined the presence of contextual variation in the production of a Hmong-speaking Laotian immigrant named Ge acquiring English definite article in Hawaii without any formal instructions. He examined the relationship between form and function in the early interlanguage of the adults and the ways this relationship changes over time. Ge first used 'the' only before special noun phrases which refer to a specific referent, assuming that this referent is evident for his addressee. Therefore, though the definite article 'the' in Ge's production is different from that in the target language, it is rule-governed. Then, he recognized his incorrect limited usage of 'the'; thus he neutralized his first rule and used the article with 90% of the noun phrases existing in the utterance. Huebner called this process *flooding*. Later on, Ge gradually drew out 'the' from different

syntactic environments so that he even omitted it in the cases which need the article according to the target language's grammar. Huebner called this process *trickling*.

Some other studies have examined the existence of invariant developmental sequences and accuracy order in the productions of children and adults acquiring English. Dulay and Burt (1974) studied the learning of some grammatical morphemes of English (such as progressive –ing, plural –s, past irregular) by twenty five 6-8 years old Chinese and Spanish children. They concluded that irrespective of learners' L1, certain morphemes were acquired in a similar order. Bailey, Madden and Krashen (1974) studied the same issue in 73 Spanish and non-Spanish adults who were learning the second language in a natural environment and confirmed the existence of a natural ordering in their language learning process. Ravem (1974) carried out a longitudinal study on two Norwegian speaking children learning positive and negative Wh questions. The results indicated the existence of similar stages in learning English positive and negative Wh questions in the two children. Comparing his results with Brown's (1973), Ravem concluded that both the children acquiring English as a first language and the children learning English as a second language indicated the same developmental stages. Moreover, Cancino, Rosansky, and Schumann (1978) investigated the process of acquiring the English interrogative structures in Spanish speaking children and adults in an English speaking environment. All these studies suggested the same stages in the learning of English WhQs.

The stages similar to those for affirmative WhQs were also reported in the studies of negative WhQs. Klein and Perdue (1992) carried out a study on the process of second language acquisition. They worked on the L2 productions of the speakers of six L1s (Arabic, Finnish, Italian, Punjabi, Spanish, and Turkish) learning five different L2s (Dutch, English, French, German, Swedish). All the participants in this study were adult immigrants to the L2 speaking countries, and they were learning the target language without a considerable amount of formal instruction in that language. This study found that all learners, regardless of their L1, go through an outstandingly similar sequence of development in their interlanguage.

Irvin (2005) investigated the development of negation in a Mexican adult who was learning English as a second language in the USA. He observed the systematic developmental stages for English negation which in some cases corresponded to the sequences observed in the acquisition of English as L1. Waswa (2008) examined the interlanguage of Lubukusu speaking secondary school students who were learning English WhQ$_S$ as a second language. He observed that the learners acquire WhQs structure systematically and he employed interlanguage theory to explain the presence of particular features in the learners' productions. Waswa suggested four stages in the development of

the English WhQs in Lubukusu learners. This study also observed much similarity between the order observed in this study and the order detected in the studies on the acquisition of English as L1.

Slavkov (2009, 2015) studied the learning of Long Distance (LD) WhQ$_S$ in 161 French and Bulgarian speaking adults who were learning English in a five-week ESL immersion program. LD WhQ$_S$ are the question forms in which the original place of a Wh word is in an embedded clause (e.g. Who do you think she wants to visit?). The results indicated that both French and Bulgarian early and intermediate L2 learners of LD WhQ$_S$ produced intermediate systems during the development of English grammar. He also compared his results with those of Thornton (1990) who studied the children acquiring English as L1 and concluded that there were similarities in the varieties observed in the intermediate systems in the L2 learners in his study and the L1 learners in Thornton's study. Stirk (2013) also did a similar study on the development of French LD WhQ$_S$ in the adults learning French as L2. Stirk proposed that the intermediate systems observed in the production of LD WhQ$_S$ are developmental phenomena in the acquisition of WHQ$_S$, irrespective of the language being learned and whether it is acquired as L1 or L2.

The studies explained so far have verified the existence of interlanguage and its special features such as invariant developmental sequence and variation in the acquisition of a second language in a natural environment. However, just two studies are found in the literature regarding learning L2 in a foreign context (Bazo & Penate, 2002; Flix, 1981). Flix studied 44 German pupils (ages 10-11) who were learning English as a foreign language in a school in Germany. The pupils showed developmental sequences in their acquisition that was similar to the developmental sequences observed in the children learning English as their first language. He concluded that the universal mechanisms involved in the first language acquisition remain available for the learning of the second language, especially for children. Bazo and Penate studied the developmental pattern of interlanguage in some Spanish pupils (ages 7-9) learning English in Spain in a classroom situation. This study observed the intermediate systems and concluded that the interlanguage produced by the pupils came from cross-linguistic influence.

Though the two last studies are about learning English in a foreign context, both of them are carried out on children and there is not any study in literature which investigated the existence of interlanguage in the adults learning English or another L2 as a foreign language. However, the process of learning L2 in adults may be different from the L2 learning process in children. Therefore, to examine the interlanguage theory in different groups of language learners and learning contexts, it is crucial to investigate the process of acquiring L2 in a foreign context by adults as well. To achieve this goal, the

present study examines the acquisition of English WhQs by Persian adults in an EFL context. The following research questions were, therefore, formulated.

1. Do participants use the proper form of the auxiliary verb in the interrogative versions of the sentences which have only a main verb?
2. Are participants able to use the auxiliary verbs in the sentences correctly?
3. How do the participants deal with the sentences whose main verb is *to be*?
4. How do they deal with the Wh words like *who*, *what* that are to be substituted for the subject of the sentence?
5. How do participants make question forms with sentences which have negative auxiliary verbs?

3. Method

3.1. Participants

Data were collected from 200 Persian female students (16-20 years of age) who were learning English in an institutional situation in Iran. The participants were students from 5 different educational levels, i.e. the first, second, third, and the fourth year of high school, and the first year of university. Data were collected through two types of written tests given to all participants. The *functional analysis method* is used in this study. All the productions of the participants are considered, not just their errors.

3.2. Instrumentation

To write the proper questions for the questionnaires, three tools, namely, pretest, observation, and interview were employed. During observation, forty university students were observed for two hours per week and for four months; all the WhQs made by the students during this period was noted. In addition, twenty high school and university students were interviewed. The interviews stimulated the production of WhQs by the participants; the WhQs produced in interviews were also recorded. Besides, a written pretest was given to the students. The results of the pretest indicated the occurrences of twelve types of errors in the productions of the language learners.

Based on the information gained from observation, interview and pretest, two sets of questionnaires were developed for this study: (1) Questionnaires with 40 affirmative predicative English sentences that needed to be converted into English interrogative sentences with certain Wh words. The Wh word selected for each predicative sentence was given at the end of the sentence in the questionnaire. Examples include (1). The air keeps us alive (What). (2). The picture is green (What color). (3). They are studying in the library (Where). (2) Questionnaires with four Persian negative-interrogative sentences which needed to be translated into their equivalent forms in English. Examples include:

Persian interrogative sentence	Gloss
tʃera bæstæni dust nædari?	Why do not you like ice cream?
tʃera hitʃkæs mæra dust nædaræd?	Why does nobody like me?

In the first questionnaire, each Wh question word makes the interrogative form of several sentences. Each sentence contains a different category of verbs and/or auxiliary and needs to be made an interrogative in a different way. For instance, the following three sentences need to be made interrogative by 'what' in three different ways:

1- The air keeps us alive. (what)
2- They made a house in the garden. (what)
3- We like milk. (what)

In the above examples, the first sentence is made an interrogative just by substituting the subject of the sentence with 'what'; auxiliaries must not be used here. The second sentence should be changed into question form through applying 'what' in the beginning of the sentence and using the past form of the auxiliary 'do' between the question word and the subject of the sentence. The main verb should be changed into an infinitive form and the phrase 'a house' should be deleted. The third sentence needs to be changed into question form by again employing 'what' in the beginning of the sentence, using the present form of auxiliary verb 'do' after the question word and before the subject of the sentence, and deleting the word 'milk'. The Persian negative-interrogative sentences are also grammatically different, and each sentence needs to be changed into the corresponding English version in a special way.

In order to collect the errors which are purely related to the grammatical development of language learners (not to their vocabulary difficulties), it was attempted to select simple, easily understood words for the questionnaires. Before giving the tests, the procedures were explained to each group.

3.3. Data Collection Procedure

The two sets of questionnaires were given to each group during two different processes:

(1) Participants were instructed to change the English affirmative declarative sentences into English question forms with (a) Wh pronouns, i.e. *what*, *who*, *whom*, (b) Wh determiners, i.e. *which*, *whose*, *how much*, *how many*, *and (*c) Wh words and expressions, i.e. *why*, *when*, *where*, *how*, *how long*, *how often*, *what time*, *what color*.

(2) Participants were instructed to change Persian negative-interrogative sentences into their   equivalent forms in English. The Wh word used here

is *why*, which is the most common Wh word in negative-interrogative sentences, and it has also been used by other scholars in this field (e.g. Ravem, 1974).

A total of 200 students answered the first set of questionnaires in order to make WhQs from declarative English sentences. These questionnaires were answered by the first, second and third high school students and the first year university students. From each group, 10 participants were selected at random and their responses to the questionnaire were analyzed. The second set of questionnaires was also answered by 200 students from the first, second, third and fourth year high school and the first year of university. Again, 10 participants were chosen from each group at random and their responses to the questionnaires were analyzed.

4. Results and Discussion

4.1. Results from the First Test

The analyses of the data from the first test indicated seven patterns in producing WhQs, some of which are incorrect in English grammar. The patterns are:

1. Change of Intonation (CI)
2. Subject Omission (SO)
3. Question forms made from *do* auxiliaries (DA)
4. Question forms made with other auxiliaries and modals (OA)
5. Verb omission (VO)
6. Verb transfer to pre-subject position (VT)
7. Mid-sentence Wh word (MS).

In the following sections, the patterns used to make WhQs in the first test are defined and illustrated with examples, and two frequency counts are considered for each pattern: the *Frequency of Production of a Pattern* (*FPP*), and the *Frequency of Correct Production of the Pattern* (*FCPP*). FPP is a measure for the Developmental Sequence in which the different interrogative creating mechanisms are introduced, and FCPP is a measure for the Accuracy Order of acquisition.

4.1.1.1 CI: Change of Intonation

The CI question forms are made by locating Wh word in the beginning of a declarative sentence and changing the intonation of the sentence; however, the declarative word order is retained. These patterns are not correct in terms of English grammar. Examples include:

1. What they made a garden?
2. When they will go to Tehran?

All groups produced CI type sentences; however, the frequency of this pattern is not similar in the four groups. There is a clear inverse relationship between the frequency of CI pattern and participants' age. Since all sentences produced via CI pattern are incorrect, it is not possible to give a FCPP value for it. The FPP values and their percentages are measured in all the four groups participating in this test, i.e. the first, second, and third year high school students and the first year of university students.

4.1.2 SO: Subject Omission

The Subject Omission cases are constructed by omitting the subject and adding the Wh word as an interrogative particle at the beginning of the sentence, regardless of the syntactic function of the interrogative particle in the English grammar. This kind of omission is generally incorrect. Examples include:
1. When will go to Tehran?
2. How drives too fast?

Even cases which are apparently correct, such as "Who is crying?" may be correct for the wrong reasons. In other words, perhaps the student omits subject and adds the Wh word without paying attention to the fact that it is an appropriate subject in the English grammar. SO type sentences were produced by the language learners at different educational levels. Unlike CI type sentences, SO type sentences do not indicate a decrease in frequency with age. For the WhQs produced by SO pattern, both FCPP and FPP values are calculated.

4.1.3 DA: Question Forms Made with 'Do' Auxiliaries

DA question pattern typically occurs with interrogative version of auxiliary-free sentences (sentences that only include main verb). Some examples of this pattern are observed in the data, and there is evidence for analyzing them as a dual interrogative particle in the interlanguage, proposed before the otherwise unchanged sentence. Examples include:
1. When do they goes to Tehran?
2. Where do you eat lunch?

Patterns of this kind can be correct or incorrect in the English grammar. At least for the first group of the students, it can be argued that an example such as "Where do you eat lunch?", which is correct in English, may be constructed as "you eat lunch", that is a correct declarative sentence, with a double particle "Where do". All groups of language learners use the DA pattern, but to varying degrees, and with frequencies which increase with age.

4.1.4 OA: Question Forms Made with Other Auxiliaries and Modals

Some of the WhQs made in OA pattern are incorrect. Both FPP and FCPP are calculated for this pattern. In the four groups, different numbers of the OA

question forms are observed. Examples of the OA type, e.g. *to be*, *to have*, *will*, *can,* and *may* are as follows:

      1. What color is the picture?

      2. Why had Maryam gone there before Nowrooz?

4.1.5 VO: Verb Omission

In the VO pattern, the verb is simply missing, and the Wh-word is pre-posed. Examples of the VO WhQs are as follows:

    1. Where your bag there?

    2. What going to my broken bicycle?

      Considering the English grammar, all the sentences with this pattern are incorrect; therefore, there are no FCPP values. Different numbers of the VO question forms are observed in the four groups. This pattern is mainly used by the first and second high school students and is rather rare in comparison with the other patterns. A slight trend of decreasing with age is observed, with complete disappearance at the fourth year of high school.

4.1.6 VT: Main Verb Transfer, with or without Auxiliary Verbs

In the VT case, the main verb is transferred to the second position after the Wh expression, and before the subject, resulting in an inverted pattern. According to the English grammar, all instances of the VT question pattern are incorrect. Examples include:

    1. What time show your watch?

    2. When goes that student there?

      Different numbers of the VT question forms are observed in the four groups, without a clear age related trend.

4.1.7 MS: Mid-Sentence Wh Word

In the MS pattern, the Wh word is inserted in the middle of the sentence. Typical examples of the MS pattern are as follows:

    1. Students wanted how many books?

    2. She why had gone there before Nowrooz?

      There are a few MS interrogative sentences in the data, and none of them is correct. Though it may be argued that "Students wanted how many books?" is a correct form of echo question, the comparison of this sentence with the other sentences produced by the participants has shown that this is a case of being right for the wrong reason. Different numbers of the MS question forms are observed in different participating groups.

      Table 1 summarizes the results of the first test answered by the first, second, and third year high school students and the first year university students. In addition to presenting FPP and FCPP numbers for each pattern, the percentage of the FPP and FCPP are calculated and presented in Table 1. To

calculate the percentage of FPP for a certain pattern, the number of WhQs made in that pattern in each group is divided into the number of the whole WhQs made by each group (i.e. about 400). To calculate the percentage of FCPP, for a certain pattern, the number of WhQs made correctly in the pattern is divided into the potential number of WhQs which can be created correctly in that pattern.

Table 1

Summary of the Results of the First Test on Making English WhQ by Persian Students

Participant Data			High School First Year				High School Second Year				High School Third Year				University First Year			
All answers			400/400				397/400				397/400				393/400			
MCP/P			FPP		FCPP		FPP		FCPP		FPP		FCPP		FPP		FCPP	
CI	-	180	45.0%	-	-	147	37.0%	-	-	73	18.0%	-	-	7	1.50%	-	-
SO	50	99	25.0%	25	50.0%	80	20.0%	34	68.0%	69	17.0%	23	46.0%	51	13.0%	35	70.0%
DA	240	39	10.0%	5	2.00%	100	25.0%	35	15.0%	103	26.0%	57	24.0%	253	64.0%	215	89.0%
OA	110	30	8.00%	19	17.0%	47	12.0%	29	26.0%	61	56.0%	61	56.0%	115	29.0%	105	95.0%
VO	-	26	6.50%	-	-	5	1.00%	-	-	4	1.00%	-	-	-	-	-	-
VT	-	25	6.00%	-	-	19	5.00%	-	-	31	8.00%	-	-	11	3.00%	-	-
MS	-	1	0.25%	-	-	9	2.00%	-	-	1	0.27%	-	-	-	-	-	-

The first column with the heading 'MCP/P' (Maximum Correct Production per Pattern) determines the potential number of WhQs which can be made correctly by each pattern. Moreover, in Table 1, the percentage values are highlighted in order to be differentiated from absolute values. The 1th highlighted column for each group indicates the percentage of times a pattern was produced (FPP); the 2nd highlighted column for each group indicates the percentage of times the pattern was correctly produced (FCPP).

4.2 Results of the Second Test

The second test is performed on five groups of students from first, second, third, and fourth year of high school and first year of university. Analysis of the data from the second test showed again seven kinds of interrogative patterns similar to those observed in the first test, including:

CI: Change of intonation and retention of declarative word order
SO: Subject omission
DA: Word order with '*d*o' auxiliaries
OA: Word order with modals and other auxiliaries
VO: Verb omission
VT: Verb transfer to pre-subject position

MS: Mid-sentence Wh word

In the following sections, each pattern is again defined for the second test and illustrated with examples and two frequency counts are also provided: the *Frequency of Use* (*FPP*) of the pattern (with a percentage of the frequency of answers produced by the pattern) and the *Frequency of Correct Use* (*FCPP*) of the pattern (with a percentage of frequency of correct use of the pattern). The same interpretation is that Developmental Sequence relates to the FPP 'completeness' measure, and Accuracy Order relates to the FCPP 'precision' measure.

4.2.1 CI: Negative Questions Made with Intonation Change

Like the following examples, all the sentences made through CI pattern are wrong according to the English grammar:

1. Why they don't work today?
2. Why they don't ice cream like?

Different numbers of WhQs are made in CI pattern in each of the five mentioned groups. FPP is calculated for each group. Similar to the CI pattern in the first test, FCPP values for WhQs made in CI pattern is zero.

4.2.2 SO: Subject Omission

The SO pattern includes examples such as the following:

1. Why can't there go?
2. Why like'nt ice cream?

In this test, all the WhQs made in SO pattern are incorrect; therefore, there is no FCPP value for this pattern. Moreover, SO pattern is not observed in the first year university students.

4.2.3 DA: Questions Made by 'Do' Auxiliaries

There are different numbers of DA question forms in the third and fourth year high school students and the first year university students. DA pattern makes WhQs such as the following examples:

1. Why don't you like ice cream?
2. Why doesn't anyone like me?

WhQs made in DA pattern may be correct or incorrect in the English grammar; therefore, both FPP and FCPP can be considered for the question forms created in this pattern.

4.2.4 OA: Other Auxiliaries such as 'To Be' and Modals

Different numbers of the OA question forms are observed in the third and fourth year high school students and the first year university students. Examples include:

1. Why can't they go there?
2. Why aren't they working today?

Some of the WhQs made in OA pattern are correct regarding the target grammar; thus, both FPP and FCPP are considered for this pattern.

4.2.5 VO: Verb Omission

An example of the VO type WhQ is Why they can't there? This question pattern is not correct according to the English grammar, so only FPP is calculated for it. This form only was observed in the second year high school students.

4.2.6 VT: Verb Transfer

In this pattern, to make WhQs, the main verb of the sentence is transferred to the second position after the Wh expression or the third position after Wh word and the auxiliary verb. VT pattern is found in sentences such as the following:

1. Why workedn't they today?
2. Why don't like me nobody?

These forms are observed in second, third, and fourth year high school students. All the VT question forms are incorrect, and only FPP values are determined for this pattern.

4.2.7 MS: Mid-Sentence Wh Word

In this pattern, WhQ word is used in the middle of the sentence rather than in the beginning of the sentence. This pattern is ignored in the second test because it is rare and just one example of it has been observed out of 40 (2.6%) as in There why can go?

The results from the second test are summarized in Table 2. In addition to FPP and FCPP values for each pattern, in table 2, the percentages of FPP and FCPP are calculated and presented. Similar to Table 1, to calculate the percentage of FPP for a certain pattern, the number of WhQs made in that pattern in each group is divided into the number of all WhQs made by each group. To calculate the percentage of FCPP, for a certain pattern, the number of WhQs made correctly in that pattern is divided into the potential number of WhQs which can be made correctly in the pattern. The first column with the heading 'MCP/P' (Maximum Correct Production per Pattern) determines the potential number of WhQs which can be made correctly by each pattern. Furthermore, the 1st highlighted column for each group indicates the percentage of times the pattern was produced and the 2nd highlighted column for each group indicates the percentage of times the pattern was correctly produced.

Table 2

The Results of the Second Test on Making English WhQ by Persian Students

Participant Data	High School First Year			High School Second Year			High School Third Year			High School Fourth Year			University First Year		
All answers	38/40			40/40			40/40			40/40			40/40		
MCP/P	FPP		FCPP	FPP		FCPP	FPP		FCPP	FPP		FCPP	FPP		FCPP
I 0	29.0%			5 37.5%			3 32.5%			22.5%			-	2.5%	
O 7	68.0%			3 57.5%			5 37.5%			20.0%			-		
A 0	-			-			12.5%		1	27.5%			10.0%	1 2.5%	1 5.0%
A 0	-			-			10.0%		.0%	20.0%			35.0%	4 5.0%	4 0.0%
O	-			2.5%			-			-			-		
T	-			5.0%			7.5%			20.0%			-		

4.3 Discussion

So far, the data collected from the Persian students who learn the WhQ structure of English as a foreign language, i. e. in a classroom environment, and the related results have been presented. The results have shown that there are some special patterns in the English WhQs produced by the participants in this study, which can be interpreted as intermediate systems or interlanguage. However, in order to be sure that the productions of the English learners in this study are instances of interlanguage, they should be examined in detail, taking into consideration the two previously mentioned features of interlanguage, i.e. Variation (interlanguages are variable and change during the course of learning) and Developmental and Accuracy Order (Interlanguages show the same sequence of development and accuracy order). In the following subsectios, we examine whether the productions of the participants in this study display Variation and Developmental and Accuracy Order.

4.3.1 Systematic Variations

Both individual and contextual variations are observed in the data collected from the Persian students learning English as a foreign language in schools. Although language learners in each group were taught by the same instructors and through the same texts, because of individual differences, the acquisition

rate of interrogative patterns was different in them. This difference in the acquisition rate led to the production of different forms of questions. Furthermore, some participants produced unique forms. Examples include:

1. When he did arrived?
2. Why they can't there?

Similarly, they showed cases of contextual variation. One of these cases is related to the interrogative version of the declarative sentences containing auxiliary and modal verbs. In the first stage of development, some language learners use the 'to be' verb in the sentence to make WhQ structure only when they are copula. However, if 'to be' verbs are functioning as auxiliary in the sentence, language learners employ 'to do' auxiliary to make question forms.

Therefore, though the method of making question forms is different from that in the target language, it is rule-governed. The following examples illustrate the rule:

1. What color is the picture?
2. Where is your bag?
3. Where do they are studying?
4. What do you doing?
5. Why do they can't to go there?

Two rules are involved here. The first two sentences illustrate one rule:

Stage 1(a), Copula Rule: If the declarative sentence contains the copula 'to be', the copula remains and helps to make the interrogative version.

The third and fourth sentences show that there is a functional difference between 'to be' as a copula and 'to be' as an auxiliary; as an auxiliary, 'to be' behaves like other auxiliary verbs:

Stage 1(b), Auxiliary Rule: If the declarative sentence contains an auxiliary or modal, 'do' is applied after Wh word to make an interrogative version of the sentence not the existing auxiliary or modal in the sentence.

In the second stage of language development, a copula, modal or an auxiliary which exists in the sentence is used to make the question form, even in the cases in which 'to do' verbs should be used according to English grammar. Therefore, in the second stage, the first rule is neutralized, even in the cases in which the rule should be applied; this is the same process that Huebner (1983) observed in his study and called it *Flooding*. Examples include:

1. Where are they studying?
2. When will they go to Tehran?
3. How many cups of coffee has the man?
4. What is we like?
5. What time is shows my watch?

Similar to the first stage, some of the sentences produced in this stage are correct, such as the first and second sentences in the above examples. However, many of them are incorrect, like the third, fourth, and fifth interrogative sentences in the above examples. They are false because in the third sentence, the main verb is used directly after the Wh word; in the fourth sentence, word order and the inflected form are both incorrect; in the fifth one, the verb 'to be' is used as part of the question expression. The rule is:

Stage 2, Auxiliary overgeneralization rule: A modal or 'to be' is always used in the Wh question formation.

In the third stage, the usage of the modals and auxiliaries of the verb is restricted and the 'to do' auxiliary is used even in sentences that should be questioned by the usage of the modal or auxiliary. This process was also observed in Hubner's study (1983) and was called *trickling*. Examples include:

1. When do they will go to Tehran?
2. Why do she had gone there before Nowrooz?

In these sentences, the overgeneralization "to make a question 'do' is always required" is encountered again, and the auxiliary verbs are retained. The forms in these examples look very much like those used in stage 1. However, as the other examples in the data illustrate, the reason for applying 'do' auxiliary in stage 2 is very different from stage 1 because the other patterns, which are typical of stage 1, do not occur here. In fact, most produced items are correct in view of target grammar. At this stage, the application of 'do' auxiliary is a new overgeneralization that overrides the previous overgeneralization about the role of modals and 'to be'.

Stage 3, Do-Override rule: WhQs are regularly formed by prefixing the declarative structure with Wh-expression followed by 'do'.

The Persian students learning the English as EFL also indicate strong evidence of systematic variation in their interlanguage. These variations can be assigned to the three stages of language development whose salient features can be captured by consistent rules. The rules are not immutable laws of nature, of course; they are preferences, which may vary somewhat from learner to learner.

4.3.2 Non-Systematic Variation

From the two types of non-systematic variations, namely, performance variation and free variation, free variation is more helpful in the analysis of the second language learning process; therefore, it will be examined more closely here. Madden and Eisenstein (1976) observed adults who used simple and progressive verbs for an identical range of functions. Wagner-Gough and Hatch (1975) also reported such a phenomenon in the data produced by their participants. An example is Give / Giving me the book.

Ravem (1978) also reported such variations in the data collected from one of the participants in his study named Redone. Examples imclude:

1. *What / What do* you want?
2. *Whose / Whose is* that is?
3. *Whats / Whats is* her doing?

There are also reports of a Portuguese boy who produced the following two negative forms in a few minutes while playing with his English language friends (Ellis 1999; Gass & Selinker 2008): *Don't look / No look* my card.

The Persian-speaking students participating in this study have also displayed different cases of free variation despite the fact that they have been learning English as a foreign language while the participants in the above studies have been learning English as a second language. Examples include:

1. Whom *did*/*does* Ali take to trip?
2. Which man are *come*/*coming*?
3. Why *don't*/*doesn't* everybody like me?

The free variations in the above examples concern inflectional forms of auxiliaries and main verbs rather than word order and auxiliary selection; nevertheless, the results are similar to those obtained in the studies which examined learning English as a second language. Larsen-Freeman and Long (1991) argued that free variation is the result of the rapid developmental changes in the interlanguage, and that the ease of access to the target language's patterns in the natural learning situation makes this process faster. Though the learners who are learning English in an EFL setting may satisfy the condition assumed by Larsen-Freeman and Long, this certainly cannot be true for the participants in the present study who are exposed to the English language patterns for only a few hours per week in a classroom. In such cases, language is normally acquired slowly and the rapid developmental changes in the interlanguage claimed by Larsen-Freeman and Long (1991) may not have occured in the participants in this study. Nevertheless, free variation is still observed in these participants' interlanguage. Therefore, the results of this study create doubts in the claim made in Larsen-Freeman and Long (1991) that the emergence of free variations is due to the rapidity of developmental changes.

So far, the different types of variations observed in this study have been presented and compared with the variations observed in the other studies on learning English as a second language. The following section will consider the Developmental Sequence and Accuracy Order in the productions of the participants in the present study.

4.3.3 Developmental Sequence and Accuracy Order

As it is mentioned in the literature review, many studies done on second language learning in natural environments (Cancino et al., 1978; Cazden et al.

1975; Ravem 1974; Richards 1971; 1974; Waswa, 2008) have indicated a common Developmental Sequence and Accuracy Order. Cazden et al. (1975), Ravem (1974), and Richards (1971) have indicated two main stages in the learning of WhQs:

(a) The adult or child learning WhQ structure makes the question forms by applying the Wh word in the beginning of a sentence and changing the intonation of the sentence. Furthermore, the auxiliary or modal verbs are not used in making question forms and there is no subject-verb inversion. For example, include:

1.   What that is?
2.   What you want?

At this stage, the language learner is not still familiar with the role of the auxiliary or modals in making the question forms.

(b) At the second stage, to make the question form, the modal or auxiliary verb comes before the subject of the sentence (subject-verb inversion), for example:

1. What are they?
2. What did you talk to them?

As it is mentioned in these studies, the production of WhQs with 'to be' verbs and auxiliaries are acquired before 'to do' auxiliaries.

Similar stages of those for affirmative WhQs were also reported in the study of negative WhQs. At the first stage, the Wh word is used in the beginning of the sentence and the sentence is in the affirmative form. The question form is made just through the changes in the intonation of a sentence, for example:

1. Why we don't go to Norway?
2. Why daddy haven't got hat on?

At the second stage, the inversion between the subject and the auxiliary or modal verb occurs. Examples include:

1. Why don't we go in Norway?
2. Why haven't daddy got hat on his head?

Cancino et. al. (1978) also observed two stages of making question forms: intonation rising and subject-verb inversion, respectively. Waswa (2008) observed four stages in his results. He calls the first stage "Wh-preposing transformation (WH)" that conforms to the first stage in Ravem (1974), Cazden et al. (1975) and Richards' (1971), for example:

1.   How James said he injured himself on the pitch?
2.   Why Barnara's father selected the fat black bull to be slaughtered during his son initiation ceremony?

The three next stages in Waswa's study are: "Subject-Auxiliary inversion (INV)", "Do support (DO)" and "the Affix- Hoping transformation (AH)". Examples include:

1. When will you complete the course? (INV)
2. Whom did mother threatened to meet? (DO)
3. How did the goal keeper save the last penalty? (AH)

All these three stages can be treated as minor stages in the second major stage mentioned in the previous studies.

The same stages are observed in the production of Persian adult students who have been learning English affirmative and negative-interrogative forms in an EFL context. Regarding affirmative interrogative forms, 92% of the WhQs produced by the Persian language learners in this study are from CI, SO, DA, and OA categories (Table 1) which exhibit the following stages in this study:

(1) Early in the process of making affirmative interrogative forms, subjects are wrongly omitted in some WhQs. Moreover, the most produced question forms are of the CI type, made by changing the intonation of the sentence, for example:

1. What they made in the garden?
2. What colour the picture is?

(2) As the language learners progress in making the affirmative interrogatives, they produce question forms with subject-auxiliary or subject-modal inversion, for example:

1. Where are they studying?
2. When will they go to Tehran?
3. Where do you eat lunch?

At the second stage, the number of CI questions gradually decreases so that in the advanced group only 1.5% of the answers are of this type. Figure 1 illustrates the gradual progress of the Persian language learners from the first stage of affirmative WhQs production to the second stage with the improvement of their language level. As the results indicate, the usage of the other auxiliaries present in the declarative sentences (OA category) for production of WhQs, especially 'to be' auxiliaries, is acquired before the usage of 'to do' auxiliaries (DA category).
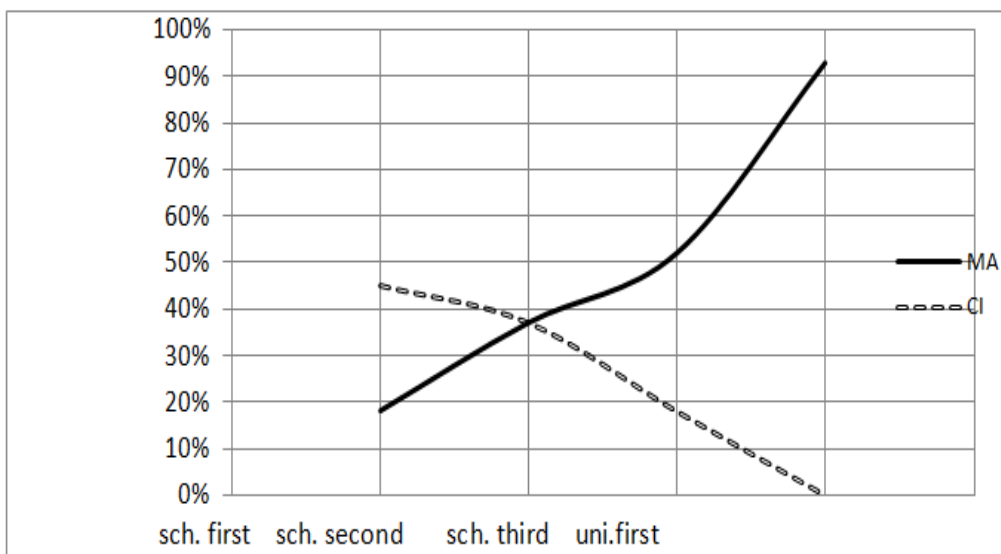
Figure 1. Correspondence between the WhQs made with modals and auxiliaries (MA) vs. WhQs made by intonation change (CI)

      Though the interrogative sentences made with 'do' auxiliaries are more than the interrogative sentences made with auxiliaries or modals present in the declarative sentences, the percentage of correct answers made by the auxiliaries or modals present in the sentences are considerably higher than the correct answers made by 'do' auxiliaries. Therefore, the Accuracy Order in the OA type interrogatives is more than DA type. Figure 2 demonstrates the Accuracy Order in WhQs produced by modals and other auxiliaries (OA) versus the Accuracy Order in WhQs produced by 'do' auxiliaries.
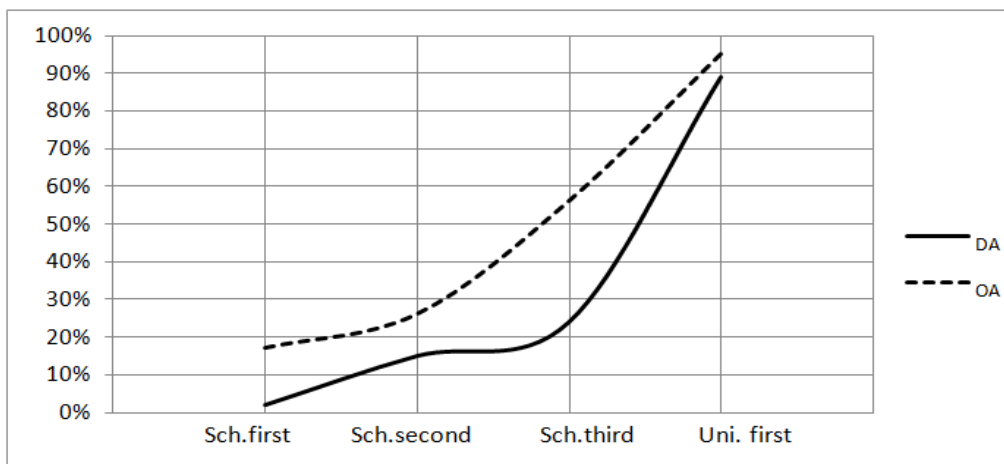
Figure 2. Correspondence between the correct WhQs made by 'do' auxiliaries (DA) vs. the correct WhQs made by other auxiliaries and modals (OA)

Negative WhQs also display the same categories (CI, SO, DA, OA) observed in affirmative interrogatives in this study (Table 2). Moreover, the developmental stages observed in the WhQs made of negative sentences are similar to the developmental stages observed in the WhQs made from affirmative sentences and also the developmental stages mentioned in similar previous studies (Cazden et al. 1975; Ravem, 1974; Richards, 1971). This implies that

At first stage, all sentences are interrogated by intonation change (CI), and the Wh word is applied in the beginning of the sentence. Also, as in affirmative questions, there are many cases of subject omission (SO) in the negative questions, the number of which decreases gradually with language level, for example:

1. Why today workn't?
2. Why nobody like me?
3. Why they cannot go there?

As the students progress to higher language levels, the number of negative WhQs made by intonation change decreases and the number of the negative WhQs made by auxiliaries or modals increases, for example:

1. Why aren't they working today?
2. Why don't you like ice cream?
3. Why can't they go there?

Figure 3 shows a decrease in the number of CI negative WhQs and an increase in the number of MA negative WhQs by an increase in the proficiency levels of the participants in this study.
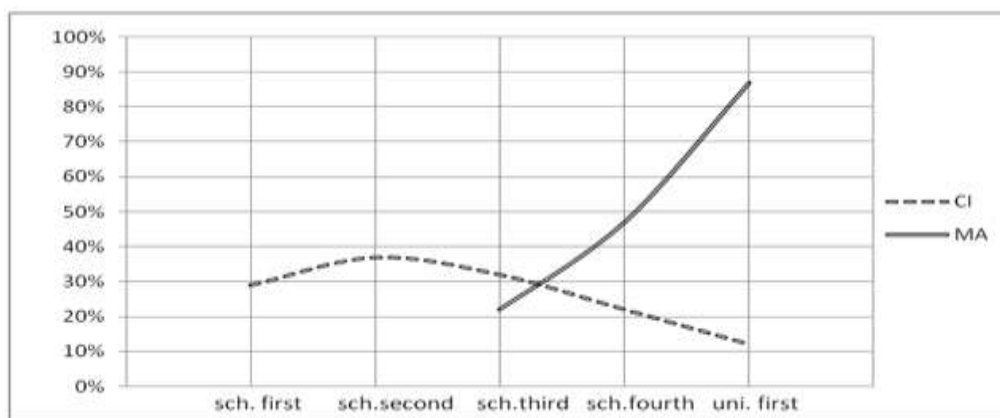
Figure 3. Correspondences between questions made by modals and auxiliaries (MA) vs.questions made by by intonation change (IC)

Furthermore, though the number of questions made by 'do' auxiliaries is more than the number of questions made by other auxiliaries or modals in the negative sentences, the correct answers in the second question type (OA)

are clearly more than the first question type (DA). This points out that, in the process of making negative WhQs, the language learners attain mastery in applying auxiliaries or modals present in the declarative sentences sooner than in applying the auxiliaries which are not present in the declarative sentences. Figure 4 compares the Accuracy Order in OA type and DA type WhQs.
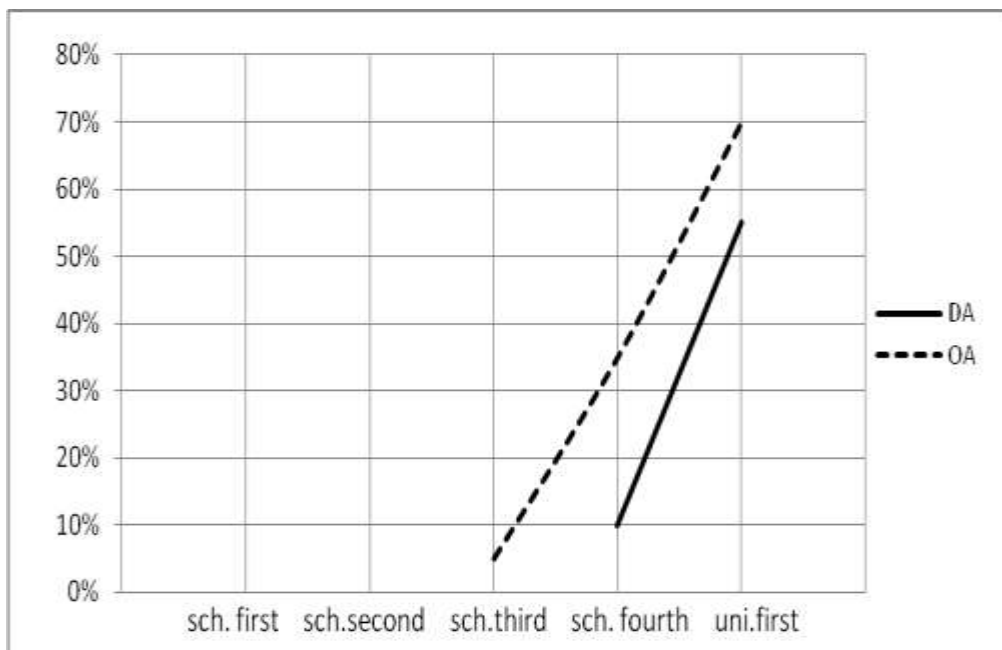
Figure 4. Correspondences between the correct questions made by 'do' auxiliaries (DA) vs. correct questions made by other auxiliaries and modals (OA)

As the above discussion reveals, the same developmental stages observed in the studies on learning English as a second language do exist in the productions of the Persian-speaking students who are learning English as a foreign language. Furthermore, the Accuracy Order in different productions can be considered and compared.

The productions of the Persian students learning English WhQs in an EFL context have illustrated interlanguage and its main characteristics, i.e. Variability, Developmental Order, and Accuracy Order. In addition, it is illustrated that the features observed in the interlanguage of the Persian learners of English as a foreign language are similar to the features observed in the interlanguage of the adults and children learning English in an ESL context.

5. Conclusion and Implications

The results of this study indicated that, regardless of the differences in the quality and quantity of language exposure in EFL and ESL, the process of learning English as a foreign language is similar to the process of learning English as a second language and Interlangugae Theory (Selinker, 1972) also applies to the situations in which the language learners are learning English as a foreign language. Futhermore, the differences in the discourse type of the classroom environment, with metalinguistic tasks, and natural environments, with a greater number of non-metalinguistic uses, do not have a noticeable effect on the interlanguage of the language learners and the stages they go through. Moreover, the results of this study created doubts on the claim made by Larsen-Freeman and Long (1991). They maintained that the rapidity of developmental changes is a key factor in creating free variation; however, free variation is also observed in the Persian students' productions who are learning English as a foreign language. It should be noticed that in an EFL context language learners usually acquire the target language's patterns slowly, since their exposure to the target language is normally very limited, just a few hours per week. Furthermore, the similarity between the developmental sequence of the children learning English as L2 and the Persian adults learning English as L2 provides more evidence to the discussion made by Ellis (1999) and White (1989a, 1989b) who questioned the critical period hypothesis and believed that universal grammar principles are also available to adults.

The main pedagogical implication of the current study is that it can influence the pedagogical strategies used by language teachers. This study can enhance the language teachers' knowledge through providing evidence of how second languages are acquired and of illustrating the natural processes exiting in second language acquisition. This information helps language teachers to gain a better understanding of the linguistic behavior of the L2 learners. Teachers' awareness of the presence of temporary intermediate systems and the psychological reasons behind the occurrence of errors can, in turn, lead to better strategies for dealing with the language learners' errors and can improve the teaching methods and materials and facilitate learning of a second language. These types of studies also help the establishment of a proper theory of foreign language acquisition and the formation of a data-bank of universal grammar.

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