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THE RELATIONSHIP BETWEEN GRAMMAR LEARNING STRATEGY USE AND LANGUAGE ACHIEVEMENT OF IRANIAN HIGH SCHOOL EFL LEARNERS

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Abstract: This paper sought to explore the relationship between grammar learning strategy use and language achievement of Iranian high school EFL learners. The participants of the study were 300 students from three different proficiency levels (Elementary, pre-intermediate, and intermediate), 230 of whom completed and returned an Oxford Solution Test, and a Likert-scale Grammar learning strategies questionnaire (GLSQ) containing 35 statements. The participants were divided to the above mentioned proficiency groups based on Oxford placement test categorization and their total GPAs. The results of descriptive statistics, interview session, and rank-ordering indicated that cognitive and social affective strategies were the most frequently grammar strategies used by Iranian EFL learners. The analysis of the quantitative and qualitative data revealed that Iranian high school EFL learners used a variety of learning strategies while learning and using grammar structures; however, the results of one-way ANOVA indicated that there was a significant difference in the frequency of use of grammar learning strategies among different proficiency levels. Additionally, the results of ANCOVA analysis showed that gender did not play a significant role in strategy use. Furthermore, the results of Pearson correlation coefficient indicated that there was a positive relationship between language achievement and grammar strategy use. The findings of the study might provide Iranian EFL teachers and learners with some helpful implications for teaching and testing, and learning grammar strategies respectively at high schools, as well as useful directions for future studies in this domain.
Keywords: *grammar learning strategies, language proficiency, language achievement, gender*

INTRODUCTION

Although there are vigorous debates concerning grammar place in language classrooms from time to time, still it appears to be of great importance in foreign/second learning and teaching. In this regard, it has been shown that the sole exposure to the target language input, especially in cases such as EFL classrooms where the amount of exposure is limited, would not be sufficient for learners to 'pick up' accurate linguistic form (Larsen-Freeman, 2001). Thus, it can be inferred that although grammar is one of the biggest components of every language

course, it should be accompanied by some learning strategies in EFL settings in order to be served as a means of accurate and fluent communication.

Learning strategies as defined by Oxford (1990), and Oxford, Rang Lee and Park (2007, p. 117) refer to "actions and thoughts that learners consciously employ to make language learning and/or language use easier, more effective, more efficient, and more enjoyable." Thus, given that all other factors which may affect language learning such as gender, type of instruction and age are controlled, it is

the type and amount of adopted learning strategy which discriminates poor and good language learners, not totally but for sure to a great extent, in a specified EFL setting such as high school.

Through the remainder of the 1970s, when the focus of second language learning moved from teaching processes to learning processes, and into the 1980s different studies tried to make the controversial definition of learning strategies clear and add more information to this domain by finding the reasons due to which some learners are more successful in language learning than others. Rubin (1975) conducted one of the earliest studies about learners' differences. She observed language classes directly or on videotape and identified several strategies of good language learners. She suggested that these strategies can be learnt by poor learners in order to help them become successful ones.

In the same year, Stern (1975) as cited in Stern (1983) identified successful learners' strategies and categorized them into ten distinctive ones including planning, active, empathic, formal, experimental, semantic, practice, communication, monitoring, and internalization strategies. As Stern's study appeared to be based on anecdotal evidence (Greenfell & Macaro, 2007), Naiman, Fröhlich, Stern, and Todesco (1978) as cited in O'Malley & Chamot (1990) proposed a different classification after interviewing thirty-four good language learners. This scheme's main strategies were: active task approach, considering language as a system, identifying language as a communication mean, management of affective requirements, and observing and monitoring L2 performance.

Rubin (1981) revised her previous scheme and divided the strategies into two main categories of direct and

indirect ones. This new categorization was followed by Oxford (1990) for her own taxonomy. By the mid-1980s, there was considerable and controversial confusion regarding the definition of language learning strategies (Griffiths, 2008). O'Malley and his colleagues (1985, p. 23) defined language learning strategies as: "any set of operations or steps used by a learner that will facilitate the acquisition, storage, retrieval or use of information".

O'Malley and Chamot (1990) identified a comprehensive list of strategies which were divided into three groups: metacognitive, cognitive, and social strategies. While metacognitive and cognitive strategies corresponded to a great extent with the indirect and direct categories of Rubin, the social mediation was a new category which emphasized the outstanding role of interactional strategies in learning different languages (Griffiths, 2008).

In addition to O'Malley *et al.*, Oxford (1990), proposed a comprehensive and practical taxonomy of language learning strategies which, as mentioned before, was based on the two major categories of Rubin. In terms of strategy training, Oxford devised a structured survey called the Strategy Inventory for Language Learning (SILL) which was made of two distinctive categories of Direct and Indirect strategies. Under the Direct strategies there were memory, cognitive and compensation strategies, while indirect strategies comprised metacognitive, affective and social ones. This scheme, which is still used by different scholars, served as a data collection tool and was used in many studies related to the use of language learning strategies.

Through all these years, there were a tremendous amount of work which tried to shed lights on different aspects of language learning strategies. One of the most important fields is related to

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learning strategies for specific skills, which has been investigated by different researchers. For example, Hosenfeld (1977) tried to find more, about students' strategies used in reading tasks; then, on year later, another good language learner study was done by Naiman, Fröhlich, Stern, and Todesco (1978). Cohen and Aphek (1980) looked at the use of mnemonic strategies for the retention of vocabulary, and found out that students were more successful in recalling words which were learnt through association.

One study for MA thesis by Gürata (2008) investigated the learning strategies EFL learners use when learning and using grammar structures. The findings of this study indicated that there is a difference in learning strategy use among different proficiency levels, and that using grammar learning strategies is influential in grammar achievement. In the words of Gürata (2008), in preparation of the grammar learning strategies used in that study, "the researcher benefited from the general language learning strategy definitions that were suggested by O'Malley and Chamot (1990) and Oxford (1990)." In addition to the three major strategy categories of O'Malley and Chamot (i.e., cognitive, metacognitive, and social-affective) compensation strategies from Oxford's taxonomy were used as the fourth category of the list used for the study. "Practicing", which is listed under memory strategies by Oxford, was included among cognitive strategies for the study since Oxford (1990) herself acknowledges the fact that memory strategies are occasionally considered to be cognitive strategies.

Grammar learning strategies as one of the main strategies, which would help the successful learning of a new language, possess distinctive characteristics, which Griffiths (2008) summarizes as follows: (1) they are what

students do, which in turn represents an active approach, (2) they are used consciously, at least to some extent, (3) they are elective means used to exploit information, (4) their use entails goal-oriented activities, (5) they're used to regulate, and (6) to facilitate the learning process.

Due to the importance of the issue and because cultural background and ethnocentric bias might jeopardize the generalizability of the results of previously done researches on language learning strategy (Kouraogo, 1993), this study sets out to determine the strategies that Iranian EFL students use when they learn and use grammar structures.

METHOD

This study was conducted at eight different high schools in two cities of Isfahan and Hamedan in January 2013. The participants of this study were 300 students, 230 of whom answered both questionnaire and the placement test completely. It included 45 boys and 185 girls. The age of participants ranged from 15 to 17 years old, and their proficiency level varied from elementary to intermediate level.

To gain the goal of this research, three instruments were used, including Oxford Solution Placement Test, Grammar Learning Strategies Questionnaire, and Interview. Firstly, the second edition of "Oxford Solution Placement Test" designed by Edward (2007) was used in order to identify the real proficiency level of each participant. Secondly, Grammar Learning Strategies (GLS) questionnair**e** proposed by Gutara (2008) was translated and consequently validated through expert view. The reliability of the translated questionnaire, after being piloted on 40 students, was reported to be .90 and .83 for respectively the first (Frequency) and the second (usefulness) parts of the

questionnaire. The participants were expected to rate each item in the questionnaire by considering two questions: (a) "How often do you use this strategy?", and (b) "I think this is a useful strategy (Even though I may not use it)." A five-point Likert-scale, ranging from (1) never to (5) always, was used for the first question and a three-point Likert-scale was used for the second question with following options: totally disagree (1), partly agree (2), and totally agree (3). Lastly, five people from each high school were selected randomly and interviewed using IELTS sample oral exam questions in order to confirm their

proficiency level.

RESULTS AND DISCUSSION
In order to answer the first until third research question, the type of strategy were compared and contrasted based on the learners' preferences. By following the calculation of frequency and mean for each of the 35 items, the means were then ordered in descending way to determine the most and least frequently used strategies. The scales, based on which the means of Likert-scales were interpreted, were originally proposed and categorized by Gurata (2008). The scales can be seen in Table 1.

Table 1. *Scales used in the interpretation of responses*

Frequency	Usefulness
1.0 - 1.4 (never)	1.0 - 1.4 (totally disagree)
1.5 - 2.4 (seldom)	1.5 - 2.4 (partly agree)
2.5 - 3.4 (sometimes)	2.5 - 3.0 (totally agree)
3.5 - 4.4 (usually)	
4.5 - 5.0 (always)	

The overall analysis of the GLS questionnaire yielded the following results for the first question. The means of the questionnaire items ranged between 1.90 and 3.80, which means that there were no strategies commonly rated as always used (4.5-5.0), and no strategies reported to be never used

(1.0-1.4). The statistics may suggest that all the strategies were used by Iranian EFL learners to some extent.

Next, in order to answer the second question, descriptive analysis was run. The results of descriptive analysis are shown in Table 2.

Table 2. *The most frequently used strategies*

	Strategy	Mean
Item 9	I take notes when my teacher explains a new grammar structure	3.80
Item 7	If I do not understand my teacher's explanation of a new structure, I ask him to repeat	3.75
Item 34	While writing or speaking if I am not sure of a grammar structure, I try to use another one	3.53
Item 22	I ask my teacher questions about his corrections of my grammatical mistakes	3.47

The first four strategies on the top of the list were considered as the most frequently used strategies since they fall into the usually range (3.5-4.4). As it can be seen from the strategies reported in Table 2, the first most frequently used

strategy is a cognitive strategy (item 9), the other one is a social-affective strategy (item 7), and the remainders are compensation and social-affective strategies respectively.

Further, to answer the third

question, five last strategies in the main analyzed list were chosen. The results are shown in Table 3.

Table 3. *The least adopted strategies by high school EFL learners*

	Strategy	Mean
Item 12	I draw charts for the grammar rules I learn	1.90
Item 28	I write emails, letters or compositions in order to practice newly learnt grammar structures	2.05
Item 27	I try to practice a new grammar structure in speaking or writing	2.09
Item 23	I study grammar with a friend or a relative	2.24
Item 19	I preview the grammar subjects that will be covered before coming to the class	2.43

As can be seen in Table 3, all five mentioned strategies fall into the seldom range (1.5-2.4). In other words, none of the strategies has been commonly rated as never used (1.0-1.4). The least frequently used strategy, item 12, with a mean of 1.90, belongs to a cognitive strategy. Similarly, items 28 and 27 are also considered as cognitive ones. On the other hand, items 19 and 23 are metacognitive and social-affective strategies respectively. Based on the strategies in the Table 3, it is possible to conclude that the respondents do not like writing compositions in order to practice new grammar structures. Besides, confirming similar results of the previous researches done in Turkey, the results of this study showed that using grammar rules in charts is not a frequently used strategy among EFL learners.

Similarly, the fourth question was also answered by using descriptive analysis. The results of descriptive analysis on second the part of the questionnaire are shown in Table 4.

Table 4. *The most useful reported strategies*

	Strategy	Mean
Item 9	I take notes when my teacher explains a new grammar structure	2.73
Item 35	I encourage myself to speak English even when I'm afraid of making a grammar mistake	2.30
Item 11	I underline, use different colors or capital letters to emphasize the important parts of grammar rules and explanations	2.26
Item 8	If I do not understand my teacher's explanation, I ask my friends for help	2.09
Item 19	I preview the grammar subjects that will be covered before coming to the class	2.07
Item 34	While writing or speaking, if I am not sure of a grammar structure, I try to use another one	2.03
Item 33	When my teacher corrects my grammar mistakes, I repeat the correct form	2.02
Item 21	I examine the mistakes which my instructor has marked in a written assignment and try to correct them	2.02
Item 18	I use grammar books in order to review or better understand new grammar structures	2.00
Item 20	I determine the grammar structures that I have trouble with and make an effort to improve them	2.00

From the table above, it is clearly known that the strategies which are considered as the most useful ones do not necessarily and exactly match with those used most frequently. As can be seen in results, except items 34 and 9, which can be found in both lists of most frequently used and usefulness, almost all the eight remainder items are believed to be useful by the participants, but not used very often.

To discuss the above mentioned finding, first students' tendency toward the use of cognitive strategies more than other types should be considered. Such intendance may have roots in the teaching and training system of Iran which has been based on memorization for many years and even now to some extent. In fact, students are taught and asked to memorize new concepts in most of the fields rather than analyzing and constructing them. Due to such policy, the use of cognitive strategies, mainly memorization, as a principal tool for learning is observed.

In a similar vein, the high frequency of use of socio-affective strategies among Iranian EFL learners shows culturally grounded issues. From past up to even now, the role of teacher has been considered as the only, or at least the main source of knowledge in the classrooms. This belief has made a strong kind of dependency on teachers; so that any question and problem should be solved by him/her and not the student her/himself. Beside the teacher, peers are the second source of help for Iranian students and this is why the students use social affective strategies more than metacognitive and compensation ones.

To answer the fifth question and to assess whether boys had higher grammar achievement than girls after controlling for differences between boys and girls in proficiency level, an analysis of covariance was used. The results are shown in Table 6. Prior to presentation of the main findings, the means and standard deviations for boys and girls on grammar achievement, before and after controlling for proficiency level, are shown in Table 5.

Table 5. *Adjusted and unadjusted gender means and variability for grammar achievement using proficiency level as a covariate*

	Unadjusted			Adjusted	
	N	M	SD	M	SE
Males	82	3.15	1.14	3.14	.086
Females	148	3.10	1.21	3.12	.116

Table 6 shows the results of analysis of covariance for grammar achievement as a function of gender.

Table 6. *Analysis of covariance for grammar achievement as a function of gender, using proficiency level as a covariate*

Source	Df	Ms	F	P
Proficiency level	1	64.64	58.97	.000
Gender	1	.031	.029	.866
Error	227	1.09		

It is clearly seen from this table that there is virtually no difference between boys and girls remained after differences proficiency levels are controlled ($p = .866$). This finding implies that strategies can be acquired regardless of gender and there is no inner superiority for males or females in

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learning and using them.

In order to find any probable relationship between language attainment and the frequency of

grammar strategy use, Pearson product-moment correlation coefficient was used. The descriptive statistics are shown in Table 7.

Table 7. *Descriptive statistics for language attainment and grammar strategy use*

	Mean	Std. Deviation	N
Questionnaire	86.19	16.54	230
Test	25.75	7.06	230

Then, the results of the *Pearson* product moment correlation is shown in

Table 8.

Table 8. *Pearson product correlation*

		GLS Questionnaire	OPT Test
GLS Questionnaire	Pearson Correlation	1	.867**
	Sig. (2-tailed)		.000
	N	230	230
OPT Test	Pearson Correlation	.867**	1
	Sig. (2-tailed)	.000	
	N	230	230

**Correlation is significant ar the 0.01 level (2-tailed)

As Table 8 indicates, the correlation of the two visualization scores is very high $(r = .86, p < .001)$, so it can be concluded that higher frequency of the use of varying strategies results in higher language attainment.

Further, in order to examine the

differences among students with different proficiency levels regarding the frequency of GLS use, one way ANOVA was run. The descriptive statistics of ANOVA test are shown in Table 9. While the results of ANOVA test are shown in Table 10.

Table 9. *Descriptive statistics for ANOVA test*

	N	Mean	Std. Deviation	Std. Error
Beginner	101	3.01	1.11	.110
Elementary	92	3.60	.92	.096
Intermediate	37	4.21	.58	.095

Table 10. *ANOVA test for three proficiency levels*

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	42.730	2	21.36	22.64	.000
Within Groups	214.144	227	.943		

As can be seen in Table 10, there exists a significant difference among three proficiency groups regarding the frequency of grammar learning strategy

use (p<.000). To find out where the exact difference existed, a post-hoc Scheffe test was run, the results of which are shown in Table 11.

Table 11. *Post-hoc Scheffe test*

		Mean Difference (I-J)	Std. Error	Sig.
BEGIN	ELEM	-.58889*	.13998	.000
	INTER	-1.19641*	.18665	.000
ELEM	BEGIN	.58889*	.13998	.000
	INTER	-.60752*	.18908	.006
INTER	BEGIN	1.19641*	.18665	.000
	ELEM	.60752*	.18908	.006

As can be seen in Table 11, all three groups are significantly different from each other; however, the difference between intermediate and elementary groups is less significant when compared to the difference between each one and the beginner group.

Finally, to find out the most frequently used strategies by good learners, descriptive analysis was run on intermediate students' collected data. Findings are categorized in Table 12.

Table 12. *Good language learners' most frequently used strategies*

	Males	Mean	Std. Deviation	Females	Mean	Std. Deviation
Strategy number	Item 35	3.88	1.26	Item 16	5.06	8.33
	Item14	3.88	1.11	Item 15	4.41	.553
	Item 31	3.76	1.09	Item 35	4.33	.963
	Item 9	3.64	1.03	Item 20	4.33	.865
	Item 32	3.64	.93	Item 30	4.25	.944
	Item 6	3.58	1.05	Item 7	4.16	.816
	Item 7	3.58	1.22	Item 9	4.12	1.15
	Item 18	3.41	1.37	Item 21	4.00	1.05
	Item 5	3.35	.93	Item 24	3.91	1.10
	Item 34	3.35	1.22	Item 32	3.87	.899

As it can be seen in Table 12, the first 10 strategies differ from each other. Although both groups seem to use all kind of strategies, but cognitive strategy (item 5, 6, 9, 14, 16, 18, 24) is used more frequently.

Regarding the difference in frequency of strategy use by students' of varying proficiency level, two main point can be discussed. It has been shown through years that the good language learners use more strategies when compared to poor ones (O'Malley & Chamot, 1990; Oxford, 2001). Thus, it is logical to conclude that intermediate learners, having tested more ways to learn language, use more helpful strategies compared to Elementary and Beginner ones. In addition, the process of language learning is a complex one which needs different strategies in varying levels. It seems that in basic levels dependency on certain types of strategies like socio-affective ones is of vital importance, since they help new learners overcome main impediments. This heavy dependency on certain and vital type of strategies may result in rare use of other strategies and that is why great difference is seen in frequency of use of strategies in varying proficiency levels.

The findings of this study may prove helpful for other EFL learners and teachers all over the world whose educational system is based on memorization rather than analyzing and synthesizing new concepts. In fact, gaining higher language and academic achievement is a function of using varying cognitive, metacognitive, and socio-affective strategies. Being

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dependent on certain types of strategy would not help students grow their knowledge in various aspects of language or any other scientific field.

Along with EFL students, the instructors shall get familiar with different types of strategies to help both themselves and students use them in learning process. Teachers with good knowledge of strategies can assign homework and projects which need certain type of strategies to be carried out. This technique is more useful in contexts where students are not interested in using specific type of strategy for the sake of convenience. A good example for grammar learning strategy is writing an email or a letter which is not a cherished learning strategy by learners but is, at the same time, very useful. The last implication concerns authorities and authors of school books. In an educational system, it is the responsibility of higher authorities to teach different strategies to teachers and learners. In fact, an educational system should provide students not only with resources to be studies but also with techniques and strategies that should be used to gain proper results. In this regard, authors are suggested to take benefit of provided strategy categories and dedicate certain sections of books to introduce useful learning strategies following proper exercises. In this way, both teachers and learners will become aware of the strategies and will modify their studying method which in turn can elevate the quality of educational system. All in all, although different strategies are used by Iranian EFL learners, it seems necessary to train the teachers before asking them to teach students how to deal with a foreign language grammar.

CONCLUSION

Oxford (2001) states that learning strategies "make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (Oxford, 1990, p. 8) when certain conditions about strategies were met. As this study indicated, although EFL learners use different grammar learning strategies; the variety and frequency of its use is not satisfying. The main reason for low frequency of use is that students are not formally familiar with different types of strategies. Thus, as Oxford (2001) points out, teachers should draw upon a wide range of instructional approaches to address the different learning styles and strategies of their students. The strategy instruction can be provided either explicitly; for instance, by raising students' awareness about the strategies that distinguish high grammar achievers from low grammar achievers, or implicitly by asking students to perform a task. Since in Iran grammar is the base part of any English class in high schools and one of the main parts of any English test, teaching grammar learning strategies is highly recommended to help language learners gain better results.

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