The Possible Differences between Learning Styles Used by Russian, English, French, and Arabic Language Learners

Ali Asghar Ahmadishokouh[1]; Fatemeh Samadi[2]

[1] Ph.D. in TEFL, Payam Noor University, Tehran, Iran

[2] Ph.D. Candidate in TEFL, Payam Noor University, Tehran, Iran

Abstract

One of the most enduring effects on education has been the search for individual differences that can explain and predict variation in student achievement, with the hope that pedagogical methods can be designed that will capitalize on these. Among the individual differences, 'Learning styles' remain a popular choice for filling this role and the number of models of learning styles on offer continues to proliferate. Learning styles are said to be influential factors, in learning a second or foreign language. Despite the fact that there are lots of papers published in this area, but comparing the learning styles employed by those who are learning different foreign languages seems to be untouched. Therefore, in this study we try to address this gap, by comparing the learning styles used by Russian, English, French, and Arabic who are learning these languages as their foreign language. A number of 100 Iranian students took part in this study. They are between 18 to 20 years of age. They were divided into four groups, each including 25 members. The Ehrman and Leaver Learning Style Questionnaire (E&L) was distributed among the language learners. The finding of the study revealed that these four groups of language learners made use of learning styles differently. And also, there are significant differences between Russian, Arabic, English, and French language learners in terms of employing learning strategies.

Keywords: *Learning Styles; Learning Style Questionnaire; Language Learners*

1. Introduction

It is a general consensus among scholars in the field of second language teaching and learning that individual learner differences could be influential factors for the degree of success and ultimate achievement of language learners.it is the main reason that over the past three decades the second language learning literature has been filled with discussions about learner styles, learning strategies, and individual differences. Wong and Nunan (2011), believe that learners who have developed skills in learning-how-to-learn will be better able to exploit classroom learning opportunities effectively, and will be more adequately equipped to continue with language learning outside of the classroom.

Learning styles refer to a range of competing and contested theories that aim to account for differences in individuals' learning. These theories propose that all people can be classified according to their 'style' of learning, although the various theories present differing views on how the styles should be defined and categorized. (Wikipedia). Learning style as a theory has provided some valuable insights into learning in both academic and other settings, therefore for quite some time now, educators in all fields are

becoming increasingly aware of the critical importance of understanding the individuals learning styles because this impacts the teaching strategies, academic performance and learning outcomes (Fayambo, 2015).

Although learning styles are relatively stable characteristics, teachers can modify classroom activities in such a way that they are more compatible with the style preferences of particular learners or at least ensure greater variety, and, in the course of time, learners themselves may be induced to engage in style stretching by experimenting with new ways of approaching learning tasks. (Pawlak, 2012)

Dörnyei (2005) use the metaphor of "a real quagmire", for studying learning styles. His justification is that there is a confusing plethora of labels and style dimensions; there is a shortage of valid and reliable measurement instruments; there is a confusion in the underlying theory; and the practical implications put forward in the literature are scarce and rather mixed, and rarely helpful.

A quick glance to the most important classifications of learning styles from Pawlak's (2012) points of view reveals that:

"The most influential of these include Witkin et al.'s (1971) distinction between field-independence and field-dependence, Reid's (1987) identification of perceptual learning modalities (i.e. visual, auditory, kinesthetic and tactile), Willing's (1987) differentiation between concrete, analytical, communicative and authority-oriented learning styles, Riding's (1991) taxonomy based on the superordinate dimensions of the wholist-analytic and verbal-imagery style, Skehan's (1998) description of learners as analysis-oriented or memory oriented, and hrman and Leaver's (2003) construct differentiating between ectasis and synopsis (i.e. need for conscious or unconscious learning, respectively).(p.27)

As Wang and Nunan (2011) put it, the literature on learning styles and strategies covers a wide variety of questions and issues. Including the relationship between learning strategy preferences and other learner characteristics such as educational level, ethnic background and first language; the issue of whether effective learners share certain style and strategy preferences; whether strategies can be explicitly taught, and, if so, whether strategy training actually makes a difference to second language acquisition; and whether effective learners share attitudes towards, and patterns of language practice and use outside of the classroom. But to the best of our knowledge the issue of learning styles adopted by different language learners has the capacity to be the subject of a new study. Therefore, this study is an attempt to shed lights on the differences between learning styles employed by Russian, Arabic, English and French language learners.

In order to delve into the topic, the following research questions are raised:

1- What are the patterns of learning styles used by English, French, Russian, and Arabic learners?

2- Is there any significant difference between Russian, Arabic, English and French language learners, who learn these languages as their foreign language?

It is also hypothesized that; there is no significant difference between Russian, Arabic, English and French language learners, who learn these languages as their foreign language.

2. Literature Review

2.1. Learning Style Definition and Proposed Frameworks

One of the most considerable concepts on the realm of language teaching, learning and language acquisition is the notion of learning style which is directly related to the learners' preferences toward general learning approach. Learning styles indicate that how a learner perceives, interacts with, and responds to the environment.

Oxford (2003, P.273) notified that while learners are leaning an issue either a matter of language acquisition or a kind of problem, they tend to use a general approach for accommodating their learning and

this directly addressed to the notion of Learning Styles. Reid (1998, P.ix) cited that for perceiving and understanding the new information and moving the acquired knowledge from uptake to intake, learning styles are internal based attributes that are perceived and used unintentionally. Another definition of the Learning Styles has declared by Galloway and Labarca (1990, P.113), a perceptual and environmental preferences of the learners which highly affect learners' needs, their cognitive characteristics and variables in terms of recognizing the structure of world, Moreover, social preferences which form behavioral preferences in the learning context is Learning Style.

Considering the noted definitions, styles of learning have 4 major facets: namely behavioral, affective, cognitive, and psychological aspect (Wallace & Oxford, 1992; Oxford, Hollaway, & Hortin-Murillo, 1992; Willing, 1988). Oxford (2003) considered cognitive facet as the one that directly addresses mental and innate functioning. Affective aspect refers to the learners' attitudes toward learning and learning circumstances. Adapting and making the situation compatible with their learning preferences and attitudes refers to behavioral aspect. Sensory or psychological facet belongs to the learners perceptual and sensory tendencies.

Various tests and frameworks to identify and to measure learning styles have been found by many researchers; namely, Riechmann and Grasha (1974) proposed Students Learning Style Scale, the next framework is provided by Kolb (1976; 1984) and it is known as Learning Style Inventory. The Questionnaire of the Perceptual Learning Style has proposed by Reid (1987). Another one is the Questionnaire of the Learning style which has made by Willing (1987). Dunn, Brown & Bearsall (1991), in line with Witkin, Oltman, Raskin, and Karp (1971) proposed the Embedded Figure Test. Kinesella (1993) designed the Perceptual Learning Preferences Survey; there are also many other frameworks.

Many studies were conducted by the using of Myer's MBTI (Li and QIN, 2006; Moody, 1988; Ehrman and Oxford, 1989). Many others have used PLSPQ, Reid's Questionnaire, (Peacock, 2001; Rossi-Le, 1995; Reid, 1987). The other specialists used Oxford's SAS Questionnaire (Walters, 2006; Yoon, 2005; Oxford and Nam, 1998; Sain, 2007; Gresham, 2007; Cohen, 2003; Carson and Longhini, 2002; Chi, 2001; Gallin, 1999).

There are many studies either conducted for learning styles or strategies of learning or to investigate the relationship between these two (Anderson, 2005; Carson and Longhini, 2002; Cohen, 1998; Ehrman and Oxford, 1990; Ehrman et al., 2003; Ely and Pease-Alvarez, 1996; Naiman et al., 1978; O'Malley and Chamot, 1990; Oxford and Anderson, 1995; Oxford and Burry-Stock, 1995; Oxford and Ehrman, 1995; Oxford et al., 1992; Oxford, 1990a, 1996; Oxford, 1990b, 2001, 2003; Oxford, 1993; Reid, 1987, 1995, 1998; Rossi-Le, 1995; Rubin, 1975; Stern, 1975; Wenden and Rubin, 1987; Wintergerst et al., 2001, 2003)

Regarding preferred style, learners' preferences are different. Zhang (2003) and Schmech, (1999) noted that learners tend to think, process and acquire the target structures in different ways. Schmeck, Ribich, and Ramanaiah (1977) discussed that some preferred to use agentic styles to obtain better grades, fact memorization and structured study. The other focused on obtaining higher comprehension, understanding thru processing the target structure elaborately.

Learners' performance is systematic that is the outcome is predictable based on learners' differences in their preferred learning styles (Lockhart and Schmeck, 1984). There are many effective strategies, namely cumulative GPA and better course performance by thinking actively and structured studying (Entwistle and Waterston, 1988), synthesis and analytic performance (Miller, Always, and Mckinley, 1987), to reflect deeply (Jakoubek and Swenson, 1993), processing elaborately (hall, Hladkyj, Perry, and Ruthing, 2004). The studies outcomes suggested that the more analytical and thoughtful the learners be, the better and well-performed outcome would gain (Meera, Steven, Ronald, and Alen, 2011). The adaptation of learning styles and personality traits predicted the learners' performance (Ferguson, James, and Madeley, 2002).

Regarding academic accomplishments, Strenberg and Zhang (2001) suggested that teaching approaches and methods should be in line and compatible with learners learning styles. Various practices

and studies provided the considerable amount of evidence for the prior role of individuals' internal traits and their preferred learning style although there's a less tapped area regarding consider learners' preferences for learning different languages. The role of gender is the other important factor regarding the use of specific learning style, that is each gender tend to use different styles and it is on the result of each sex characteristics. On one hand, Females would use the feminine traits, on the other hand, males would use the masculine traits.

Many pieces of research resulted that males outperformed towards independent and individual learning (O'Faithaigh, 2000; Amir & Jelas, 2010; Baneshi et al., 2014). Although many studies discussed similarly that the obtained results of different genders are various, they did not fully explain their differences. Many scholars declared that the processes of socialization depend on the individuals' gender (Severiens & Ten Dam, 1997; Oxford, 1995; Melton, 1990; Ashmore, 1990). Socialization refers to the young learners' education based by assigning them to do different roles and responsibilities in the society and social life Oxford (1995). Considering the identities of each gender, it is predictable to find out how differently each sex would perform in educational situations and settings (Severines and Ten Dam, 1997).

Ashmore's gender model (1990) contains different segments for instance personal characteristics, preferred and interested abilities, social status and role, and individuals' appearances. But they didn't note any reasons for these observed significant differences toward a same learning style and why a gender group outperformed another gender group. The other source for these discrepancies is the matter of hemisphericity. Hemispheres perform differently toward language. While the right side deals with meanings, the other side deals with forms and patterns Leaver (1986). Oxford (1995) declared that while males tend to deal language with the left side, females tend to deal language with the right side.

Isemonger and Sheppard (2003), Melton (1990), and Oxford's (1995) noted that males are Kinesthetic. Hence, some researchers (Severines & ten Dam, 1997; Baneshi, Tezerjani, & Mokhtarpour, 2014) notified that the observed differences are as a result of the observation context, settings of education, and learners culture. Watkins and Hattie (1981), cited that such differences are as a result of learners major.

3. Method

3.1. Participants

Participants of this study are 100 university students in Iran, majoring in management, geography, sociology, law, international relation, and history. They are between 19 to 21 years of age. They are learning four languages (Russian, Arabic, English and French) as the foreign language. Based on their interests they were divided into the 4 language classes and each student enrolled in just one language class. Each class consists of 25 students. They are attending in these language classes as extra courses for two hours a day, three days a week.

3.2. Instrumentation

This study adopted the Ehrman and Leaver Learning Style Questionnaire (E&L). The E&L consists of 10 subscales, each of which comprises three bipolar question items.

4. Results

RQ1: what are the patterns of learning styles used by English, French, Russian, and Arabic learners?

To answer this question, the researchers reported the results of the descriptive statistics and the bar graph designed based on the learning styles used by these four groups of language learners. The results are as follows:

Table.1

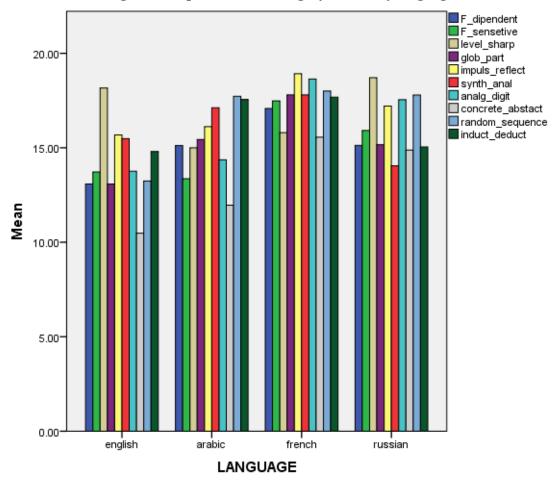|		N	Mean	Std. Deviation	Std. Error
F_dipendent	english	25	13.08	3.86135	.77227
	arabic	25	15.12	4.22611	.84522
	french	25	17.08	3.89358	.77872
	russian	25	15.12	5.22271	1.04454
	Total	100	15.10	4.50028	.45003
F_sensetive	english	25	13.72	5.37370	1.07474
	arabic	25	13.36	4.36730	.87346
	french	25	17.48	4.23399	.84680
	russian	25	16.24	4.60326	.92065
	Total	100	15.20	4.90928	.49093
level_sharp	english	25	18.16	6.37495	1.27499
	arabic	25	15.00	3.76386	.75277
	french	25	15.80	3.74166	.74833
	russian	25	18.48	3.95938	.79188
	Total	100	16.86	4.76736	.47674
glob_part	english	25	13.08	6.84300	1.36860
	arabic	25	15.44	6.35793	1.27159
	french	25	17.80	17.78810	3.55762
	russian	25	15.20	6.28490	1.25698
	Total	100	15.38	10.50039	1.05004
impuls_reflect	english	25	15.68	5.61783	1.12357
	arabic	25	16.12	4.94402	.98880
	french	25	18.92	3.45109	.69022
	russian	25	17.12	4.63069	.92614
	Total	100	16.96	4.81982	.48198
synth_anal	english	25	15.48	4.22414	.84483
	arabic	25	17.12	4.31393	.86279
	french	25	17.80	3.89444	.77889
	russian	25	13.60	6.50641	1.30128
	Total	100	16.00	5.04325	.50432
analg_digit	english	25	13.76	5.04381	1.00876
	arabic	25	14.36	5.39197	1.07839
	french	25	18.64	3.49857	.69971
	russian	25	17.20	5.03322	1.00664
	Total	100	15.99	5.13749	.51375
concrete_abstact	english	25	10.48	3.45350	.69070
	arabic	25	11.96	3.62261	.72452
	french	25	15.56	3.69775	.73955
	russian	25	15.04	6.04483	1.20897
	Total	100	13.26	4.77074	.47707
random_sequence	english	25	13.24	5.31727	1.06345
	arabic	25	17.72	6.11365	1.22273
	french	25	18.00	4.18330	.83666
	russian	25	17.24	5.99500	1.19900
	Total	100	16.55	5.71260	.57126
induct_deduct	english	25	14.80	5.05800	1.01160
	arabic	25	17.56	4.02161	.80432
	french	25	17.68	3.67106	.73421
	russian	24	15.04	5.49687	1.12204
	Total	99	16.28	4.74028	.47642

Figure.1.the pattern of learning styles used by language learners

As it could be shown in table.1 and figure.1, the four groups of language learners made use of learning styles differently. While, English learners made use of field dependence, field sensitive, sharpener, global, impulsive, analytic, analogue, concrete, random, and inductive learning styles the patterns of learning styles for Arabic language learners are; field independence, field sensitive, sharpener, particular, impulsive, analytic, analogue, concrete, sequential, and deductive. Moreover, the learning styles employed by French language learners are; field independence, field insensitive, sharpener, particular, impulsive, synthetic, digital, abstract, sequential, and deductive. And also, the learning styles employed by Russian language learners includes; field independence, field insensitive, sharpener, particular, impulsive, analytic, digital, abstract, sequential, and deductive.

RQ2: Is there any significant difference between Russian, Arabic, English and French language learners, who learn these languages as their foreign language?

On order to answer this research question and also to test the due hypothesis the researchers made use of a set of ANOVA tests. The results could be described as follows:

As we have seen in table.1, the means of each learning styles employed by the four groups of language learners are different. So, in order to see if these differences are statistically significant, we need to report the results of the following tables.

Table.2. Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
F_dipendent	1.366	3	96	.258
F_sensetive	1.112	3	96	.348
level_sharp	5.365	3	96	.072
glob_part	.604	3	96	.614
impuls_reflect	2.460	3	96	.067
synth_anal	1.825	3	96	.148
analg_digit	2.284	3	96	.084
concrete_abstact	2.919	3	96	.098
random_sequence	2.417	3	96	.071
induct_deduct	2.363	3	95	.076

In order to make use of the results of the ANOVA, the main assumption of this test must be fulfilled. As it could be seen in the above table (table.2), the differences between the variances are not significant, which means that the assumptions of the ANOVA tests for this study are observed. So we are in a safe ground to report the results of the ANOVA tests.

Table.3. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
F_dipendent	Between Groups	200.040	3	66.680	3.546	.017
	Within Groups	1804.960	96	18.802		
	Total	2005.000	99			
F_sensetive	Between Groups	296.400	3	98.800	4.539	.005
	Within Groups	2089.600	96	21.767		
	Total	2386.000	99			
level_sharp	Between Groups	222.440	3	74.147	3.511	.018
	Within Groups	2027.600	96	21.121		
	Total	2250.040	99			
glob_part	Between Groups	279.560	3	93.187	.841	.475
	Within Groups	10636.000	96	110.792		
	Total	10915.560	99			
impuls_reflect	Between Groups	155.280	3	51.760	2.317	.050
	Within Groups	2144.560	96	22.339		
	Total	2299.840	99			
synth_anal	Between Groups	263.120	3	87.707	3.734	.014
	Within Groups	2254.880	96	23.488		
	Total	2518.000	99			
analg_digit	Between Groups	402.910	3	134.303	5.834	.001
	Within Groups	2210.080	96	23.022		
	Total	2612.990	99			
concrete_abstact	Between Groups	446.920	3	148.973	7.917	.000
	Within Groups	1806.320	96	18.816		
	Total	2253.240	99			
random_sequence	Between Groups	372.590	3	124.197	4.172	.008
	Within Groups	2858.160	96	29.773		
	Total	3230.750	99			
induct_deduct	Between Groups	181.522	3	60.507	2.845	.042
	Within Groups	2020.558	95	21.269		
	Total	2202.081	98			

As you can see in the table(table.3), except for global /particular(p=0.47) , all the ANOVA tests are statistically significant, for field dependent / field independent the p value=0.01, for field sensitive / field insensitive the p value=0.00 , for leveler /sharpener the p value= 0.01, for impulsive/reflective the p value=0.05, for synthetic/ analytic the p value=0.01, for analog/digital the p value=0.001, for concrete/abstract the p value=0.000, for random/sequential the p value=0.008, and for inductive/deductive the p value=0.04). Based on the data derived from table.3, we can conclude that the learning style are used differently by the four groups of language learners. Therefore, the null hypothesis of the study is rejected, and we can safely argue that there are significant differences between Russian, Arabic, French and English learners in terms of employing learning styles.

The conclusions made from the ANOVA table (table.3) could be approved by Figure.1.

In order to go to the roots of the differences between the second language learners in using learning styles, the Tukey test as a post hoc test was run. The results are as follows:

Table.4. Tukey test

Dependent Variable	(I) LANGUAGE	(J) LANGUAGE	Mean Difference (I-J)	Std. Error	Sig.
F_dipendent	english	arabic	-2.04000	1.22643	.349
		french	-4.00000*	1.22643	.008
		russian	-2.04000	1.22643	.349
		french	-1.96000	1.22643	.385
		russian	.00000	1.22643	1.000
		russian	1.96000	1.22643	.385
F_sensetive	english	arabic	.36000	1.31960	.993
		french	-3.76000*	1.31960	.027
		russian	-2.52000	1.31960	.231
	arabic	french	-4.12000*	1.31960	.012
		russian	-2.88000	1.31960	.135
	french	russian	1.24000	1.31960	.784
level_sharp	english	arabic	3.16000	1.29987	.078
		french	2.36000	1.29987	.272
		russian	-.32000	1.29987	.995
	arabic	french	-.80000	1.29987	.927
		russian	-3.48000*	1.29987	.043
	french	russian	-2.68000	1.29987	.173
glob_part	english	arabic	-2.36000	2.97714	.858
		french	-4.72000	2.97714	.392
		russian	-2.12000	2.97714	.892
	arabic	french	-2.36000	2.97714	.858
		russian	.24000	2.97714	1.000
					.392
					.858
	french	russian	2.60000	2.97714	.819
impuls_reflect	english	arabic	-.44000	1.33684	.988
		french	-3.24000	1.33684	.079
		russian	-1.44000	1.33684	.704
	arabic	french	-2.80000	1.33684	.012

		russian	-1.00000	1.33684	.877
	french	russian	1.80000	1.33684	.536
synth_anal	english	arabic	-1.64000	1.37079	.631
		french	-2.32000	1.37079	.333
		russian	1.88000	1.37079	.520
	arabic	french	-.68000	1.37079	.960
		russian	3.52000	1.37079	.056
	french	russian	4.20000*	1.37079	.015
analg_digit	english	arabic	-.60000	1.35710	.971
		french	-4.88000*	1.35710	.003
		russian	-3.44000	1.35710	.051
	arabic	french	-4.28000*	1.35710	.011
		russian	-2.84000	1.35710	.163
	french	russian	1.44000	1.35710	.714
concrete_abstact	english	arabic	-1.48000	1.22689	.624
		french	-5.08000*	1.22689	.000
		russian	-4.56000*	1.22689	.002
	arabic	french	-3.60000*	1.22689	.021
		russian	-3.08000	1.22689	.065
	french	russian	.52000	1.22689	.974
random_sequence	english	arabic	-4.48000*	1.54331	.023
		french	-4.76000*	1.54331	.014
		russian	-4.00000	1.54331	.053
	arabic	french	-.28000	1.54331	.998
		russian	.48000	1.54331	.990
	french	russian	.76000	1.54331	.961
induct_deduct	english	arabic	-2.76000	1.30442	.155
		french	-2.88000	1.30442	.029
		russian	-.24167	1.31794	.998
	arabic	french	-.12000	1.30442	1.000
		russian	2.51833	1.31794	.230
	french	russian	2.63833	1.31794	.195

For field dependent / field independent the main sources of difference are between English and French language learners where p=0.08. And, for field sensitive / field insensitive the sources of difference are between English and French language learners where p=0.02. Also for leveler /sharpener the main difference is between Arab and Russian language learners, where p value= 0.04. Moreover, for impulsive/reflective the point of difference is between Arabic and French language learners, that the p value=0.01. Furthermore, for synthetic/ analytic style the source of difference is between Arabic and Russian and also between French and Russian, with the p values of 0.05 and 0.01 respectively. Also for analog/digital style the difference is between English and Russian with p=0.003, English and French with p=0.05, and Arabic, and French with p=.01. For concrete/abstract learning style the point of difference lies between English and French with p=0.000, English and Russian for which p=0.002, Arabic and French with p=0.02. For random/sequential style the main difference is between English and Arabic p=0.02, English and Russian p=0.05, English and French with p=0.01. and for inductive/deductive learning styles the difference lies between English and French with p=0.02.

5. Discussion and Conclusion

This study was an attempt to shed lights on the patterns of learning styles and also the possible differences between Russian, Arabic, English, And French learners in using the learning styles based on the learning style category proposed by E & L. Based on the results from tables and figure in the result section, it was concluded that learning styles are used differently by Russian, Arabic, English, And French learners and there are significant differences between these groups of language learners in their learning styles.

Based on the results section, it is also understood that among these groups of language learners, English language learners used learning styles very differently from other language learners. Furthermore, the most similarity among these groups of language learners in using learning styles are for English and Arabic language learners with only two differences which are for filed independence/ dependence and global/particular learning styles. While, English learners made use of field dependence, field sensitive, sharpener, global, impulsive, analytic, analogue, concrete, random, and inductive learning styles the patterns of learning styles for Arabic language learners are; field independence, field sensitive, sharpener, particular, impulsive, analytic, analogue, concrete, sequential, and deductive.

Another line of similarity could be traced for Russian and French language learners, with only one difference which is between synthetic and analytic style. While, the learning styles employed by French language learners are; field independence, field insensitive, sharpener, particular, impulsive, synthetic, digital, abstract, sequential, and deductive, the learning styles used by Russian language learners includes; field independence, field insensitive, and sharpener, particular, impulsive, analytic, digital, abstract, sequential, and deductive.

As the concluding remarks, we can argued that the finding of this study could be used by language teachers in incorporating these differences in their planning for teaching these languages. Another beneficial groups would be institutions who are teaching different languages including these for languages; namely Russian, Arabic, English, And French languages to consider these differences in language classes. The last group who can make use of the results of this study, are materials developers and course book writers, to include these differences in learning styles employed by Russian, Arabic, English, And French learners, and incorporate them in developing language materials.

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