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The Difference between Field-Dependent versus Field-Independent EFL Learners' Use of Learning Strategies

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Abstract: *The present study sought to explore if EFL learners with different field-dependence/field-independence cognitive style are significantly different considering their usage of learning strategies. To fulfill the aim of this study, 130 students from different institutes in Tehran with at least five or six years of learning experience were non-randomly selected from among a total number of 215 learners. Then, two groups of field-dependent and field-independent learners each consisting 65 learners were chosen after administering the Group Embedded Figures Test (GEFT). Afterwards, the Strategy Inventory for Language Learning (SILL) was handed out to the selected participants. After data gathering, independent samples t-test and Mann Whitney U test were run for inferential statistics to find any significant difference in learning strategies used by the two groups of learners. Data analysis showed that there were significant differences between field-dependent and field-independent learners in memory, cognitive, compensation, affective, and social strategy use. However, no significant difference was found between field-dependent and field-independent learners in metacognitive strategy use. It was concluded that the cognitive style of field-dependent and field-independent may be the source of difference in the way learners use language learning strategies.*

Keywords: *Learning Strategies, Cognitive style, Field dependent/independent learners.*

Introduction

There are some important and interwoven elements in the area of education, videlicet: teachers, learners, materials, and context. Among these elements teachers and learners can be considered more important than others and seemingly the controversy over the importance of teachers or learners has always been open to debate. Although both teachers and learners are important in the area of education, the focus of attention from teachers has changed toward learners in the last decade (Nikoopour, Amini Farsani & Kashefi Neishabouri, 2011). In order to help learners find quick and efficient ways for learning, researchers (e.g., Fengfang, 2010) have searched to identify different variables affecting learning outcome such as age, aptitude, motivation, cognitive style, learning style, learning belief, and learning strategy.

Based on Gass and Selinker (1994), in some of the theories, the degree of success of an individual in language learning can be affected by personality factors which lead to the

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determination of thinking styles or as earlier mentioned, cognitive styles. According to Ellis (1985), cognitive style as a learning variable is an individual characteristic and people's manner of perceiving, recalling, and organizing information. Based on Ngeow (1999), knowing cognitive styles can be beneficial for learners in that they can use their learning opportunities in a better way and consequently enhance their learning. It can be seen that due to the importance of learners' cognitive style various studies have been done which have led to different classifications of cognitive styles.

Cognitive style is defined as "characteristic modes of functioning that we show throughout our perceptual and intellectual activities in a highly consistent and pervasive way" (Witkin, 1972, p.72). The number of these cognitive styles accessible in the literature is a lot including visual/haptic, visualizer/verbalizer, leveling/sharpening, serialist/holist, and field dependent/independent (Jonassen & Grabowski, 1993).

The cognitive style of field-dependent and field-independent is one area that drew researchers' attention with its application to the educational contexts (e.g., Altun & Cakan, 2006; Daniels, 1996; Ford & Chen, 2001). Based on Daniels' (1996) summary of field-dependent and field-independent:

"Field-dependents rely on the surrounding perceptual field, have difficulty attending to, extracting and using non-salient cues, have difficulty providing structure to ambiguous information and forging links with prior knowledge and have difficulty retrieving information from long-term memory" (p. 38).

Witkin, Moore, Goodenough, and cox (1977) have defined field-independence as "the extent to which a person perceives parts of a field analytically" (p. 275). On the other hand, they defined field-independent as "the extent to which a person perceives part of a field as discrete from the surrounding field as a whole" (p. 275).

Messick (1976) has defined them as "the field-independent person tends to articulate figures as discrete from their backgrounds and to easily differentiate objects from embedding contexts, whereas the field-dependent person tends to experience events globally in an undifferentiated fashion" (p. 5).

According to Witkin and Goodeneough (1977), field-dependents and field-independents rely on either external or internal frames of references in processing information. Therefore, it can be predicted that both learners with these two types of cognitive styles use strategies that help them in the process of learning but have different preferences. In order to have successful learning, learners should learn some strategies to help them improve their learning; because the process of learning a language is a mental and the strategies for learning a language are actually different ways of thinking and information processing.

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Based on Weinstein and Mayer (1986), thoughts that are influential in the learner's encoding process are learning strategies. Oxford (1990) defines learning strategies as steps that students take in order to improve their learning and essential tools in having a self-directed and active learning which are important in developing communicative competence and a higher level of self-confidence and proficiency.

There are different classifications and definitions for learning strategies. Based on O'Malley and Chamot system (1990), there are three broad types of strategies which are cognitive, meta-cognitive, and socio-affective. Though, Rubin (1981) classifies these strategies as monitoring, memorization, guessing/inductive inferencing, deductive reasoning, classification/verification, and practice which contribute directly to language learning, along with creating opportunities for practice and production tricks which contribute indirectly to language learning (Rubin, 1981, as cited in Tsung-Yuan & Oxford, 2002).

However, Oxford (1990) defined six categories in her strategy Inventory for language learning (SILL): Memory strategies, cognitive strategies, compensation strategies, meta-cognitive strategies, affective strategies, and social strategies (Oxford, 1990). According to Vidal (2002), Oxford's classification is comprehensive, detailed, and systematic, so it has been selected for this study.

Learning strategies are defined as "specific actions, behaviors, steps, or techniques such as seeking out conversation partners, or giving oneself encouragement to tackle a difficult language task used by students to enhance their own learning" (Scarcella & Oxford, 1992, p. 63). The best known widely used strategy inventory for language learning (Oxford, 1989, p. 404) identifies six strategy types:

- Cognitive strategies: are defined as "skills that involve manipulation or transformation of the language in some direct way, e.g. through reasoning, analysis, note-taking, functional practice in naturalistic setting, formal practice with structures and sounds, etc."
- Memory strategies: are defined as "techniques specifically tailored to help the learner store new information in memory and retrieve it later."
- Compensation strategies: are defined as "behaviors used to compensate for missing knowledge of some kind, e.g., inferencing (guessing) while listening or reading, or using synonyms or circumlocution while speaking or writing."
- Metacognitive strategies: are defined as "behavior used for centering, arranging, planning, and evaluation one's learning. These "beyond the cognitive" strategies are used to provide "executive control" over the learning process.
- Affective strategies: are defined as "techniques like self-reinforcement and positive self-talk which help learners gain better control over their emotions, attitudes, and, motivations related to language learning."

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- Social strategies: are defined as "actions involving other people in the language learning process. Examples are questioning, cooperating with peers, and developing empathy".

Research Question

Q: Is there any statistically significant difference between field-dependent/field-independent EFL learners' use of language learning strategies?

Method

Participants

This study investigated the issue with about 130 students chosen from different language Institutes in Tehran with at least five or six years of learning experience. The participants were selected based on a non-random sampling procedure from among a total of 215 students who voluntarily took part in this study. Based on their scores on the Group Embedded Figures Test (GEFT) they were divided into two groups of field-dependent and field-independent. Seventy six students got the score six to thirteen, so they were out as they didn't belong to the either groups of field-dependent and field-independent. The other remnants were sixty five field-independent and seventy four field-dependent. In order to have an equal number of participants in each group, 65 field-dependent and 65 field-independent students have been chosen to participate in the study; as a result, the nine field-dependent learners were discarded.

Instrumentation

For the present study the Group Embedded Figure Test (GEFT) and Strategy Inventory for Language Learning (SILL) were the utilized instruments which are going to be described.

The Group Embedded Figures Test (GEFT)

The Group Embedded Figure Test (GEFT) is a classic way to measure field dependence/independence and was devised by Oltman, Raskin, and Witkin in 1971. This test which is a paper and pencil test measures the ability of an individual in separating a visual field to be recognized as a part from the given total field.

The GEFT booklet consists of three sections in which the participants are asked to identify eight simple forms from among the twenty-five complex figures. In the first section which has seven items. The participants are asked to answer some problems in two minutes for practice, as a result this section is just for familiarizing the participants with the nature of the test and the scores of this part are not going to be included in total score. In the second and third sections, the participants should distinguish eighteen simple shapes which are embedded in a larger design by delineating the outer lines of the shapes. Each section consists of eight items and should be completed in ten minutes, which was scored from zero to eighteen. Getting the scores between 0-6 means that the participants

are field-dependent and getting the scores between 13-18 means that the participants are field-independent.

The split-half reliability estimation of this test based on the Spearman-Brown formula is .82 that is for both male and female (Witkin, Oltman, Raskin & karp, 1971). The original test from which the GEFT was designed is EFT which is a perceptual test and Witkin et.al. (1971) by comparing the outcomes of these two tests (GEFT & EFT) reported the validity of GEFT based on a sample of 397 students, the correlation for men was r = .82 and for women was r = .63 with the mean score of 12 for men and 10.8 for women.

Strategy Inventory for Language Teaching (SILT)

In order to measure the use of language learning strategies, the strategy inventory for language learning (SILL) was used. It is the mostly used strategy scale, and according to Oxford and Burry Stock (1995), is easy and quick to give and has a very high reliability and validity. Which has two versions.

The first version with eighty items is used for the native speakers of English whereas the 50-item one is used for second or foreign language learners. The second one was used in this study which includes six categories of strategies: memory strategies (9 items), cognitive strategies (14 items), compensation strategies (6 items), affective strategies (6 items), social strategies (6 items), and metacognitive strategies (9 items). The items include six subscales, which are organized according to factor analysis. SILL uses a choice of five Likert-scale responses described as: Never or almost never true of me (1), generally not true of me (2), somewhat true of me (3), generally true of me (4), and always or almost always true of me (5); learners are going to choose their responses (1,2,3,4 or 5) to a strategy description. The total average score of SILL shows the learners' general tendency to use learning strategies, but average score for each part shows the strategy groups learners tend to use most often.

Cronbach alpha has been selected as the most suitable reliability index for the SILL (Oxford, 1996), so it has a high reliability which was mentioned here based on a number of studies. For example, according to a study conducted by Oxford and Nyikos (1989) with 1200 students, the estimated reliability of SILL was .91. In another research with a sample of 255 Japanese University and College learners, the reliability was .92 (Watanabe, 1990). Based on Oxford and Burry-Stock (1995) SILL`s criterion-related validity was considered as a reliable evidence for justifying its validity.

Takeuchi (1993) used multiple regression to examine the criterion-related validity of SILL and found that eight SILL items predicted 58% of the variance in scores on the comprehensive English language test. Moreover, Mullins (1992) reported the correlation of r = .38 for the construct validity of SILL by comparing two sets of score related to compensation strategy and language placement test.

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Procedure

To begin with, a total number of 130 students with at least five or six years of learning experience from different institute in Tehran were selected through a purposive non-random sampling method. For the purpose of motivating and triggering their willingness to participate in the study the researchers provided them with a Pdf package of vocabulary coding series for IELTS and TOFEL.

At first the researchers shortly briefed them about the purpose of the study alongside with an instruction of what they were going to do. After that the participants filled out the GEFT questionnaire in 12 minutes in order to determine their FD/FI cognitive style.

In the scoring procedure, only the obtained score from the second and third parts of the GEFT which contained two nine-item sections and five-minute limit for each part, were included in the total score so as it mentioned earlier the range of the scores was from 0 (highly field-dependent) to 18(highly field-independent). Those who got the scores between 0-6 were considered as field-dependence while field-independents' scores were thirteen to eighteen.

Therefore seventy six students were out because they were neither FD nor FI so the SILL questionnaire was not given to them. The other one hundred thirty nine who were seventy four FD and sixty five FI were divided into two groups with equal number of sixty five participants in each one.

Then the SILL questionnaire was distributed from among those who were chosen. That took about 20 to 30 minutes to be completed for determining the dominant language learning strategies used by the learners with the presence of the researcher all throughout the administration to monitor the accuracy of the process.

Collecting the required data, the researcher scored them and in the next phase, analyzed the gathered data. As the SILL questionnaire consists of six parts, the sum of them was calculated in order to get the average score. After that procedure the scores of one hundred and thirty learners who took the GEFT and SILL were analyzed using Cronbach's Alpha formula.

Finally, to see whether field-dependent and field-independent learners were significantly different, the independent sample *t*-test was run.

Findings

As the first step of the study, the reliability of the instruments were checked. To this end, the scores of the 130 participants who took the GEFT and SILL were analyzed using Cronbach's Alpha formula. Table 1 shows the results of descriptive analysis and Cronbach's Alpha.

Table 1 Descriptive Analysis and Cronbach's Alpha of GEFT and SILL

	N	Minimum	Maximum	Mean	Std. Deviation	Alpha

SILL Pilot	130	97	237	158.9308	40.46267	.782
GEFT Pilot	130	1.00	16.00	9.2077	5.53872	.848

In order to decide to choose between parametric and non-parametric tests for analyzing the data for finding the answers to the research question, it was needed to check the data in terms of its distribution. Since data were of interval type the first assumption of parametric tests was met. The second assumption was normal distribution of data which was tested according to the ratio of skewness/std. Error of skewness for both FD/FI learners. All the skewness and kurtosis were within the range of ±1.96 except the skewness/kurtosis value of affective strategy in field-independent group and skewness value in metacognitive of field dependent/independent groups (Table 1). Besides, Kolmogorov Smirnov test of normality indicated that learners' scores of affective and metacognitive strategies were not normally distributed ($p<.05$). Therefore, all the differences were estimated using independent samples *t*-test except the two related to affective strategy in field-independent group and metacognitive in field dependent/independent groups which were estimated using Mann Whitney U test.

Table 2 Descriptive Statistics of the Affective and Metacognitive Strategies of FD/FI Learners

				Normality Test	Skewness			Kurtosis		
	N	Mean	SD	Kolmogorov -Smirnov	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Affective FD	65	2.7334	.95529	.017	.494	.297	1.66	-.980	.586	-1.67
Affective FI	65	3.8134	.66466	.000	-1.508	.297	**-5.08**	1.759	.586	**3.00**
Metacognitive FD	65	2.7657	.65574	.017	.764	.297	**2.57**	.520	.586	.89
Metacognitive FI	65	2.7692	.66210	.001	.682	.297	**2.30**	.334	.586	.57

The research question was about any significant difference between field-dependent and field-independent EFL learners' use of language learning strategies. Table 3 shows the descriptive statistics comparisons of language learning strategies between the field-dependent and field-independent groups.

Table 3 Comparisons of Strategies between the Field Dependent/Independent Groups

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Memory Strategy FD	65	1.11	4.67	2.7340	.12520	1.00936
Memory Strategy FI	65	1.44	4.89	3.1935	.12240	.98682
Cognitive Strategy FD	65	1.43	4.79	3.1365	.11813	.95237
Cognitive Strategy FI	65	2.07	4.93	3.5262	.10333	.83309
Compensation Strategy FD	65	1.67	5.00	3.1974	.10251	.82646
Compensation Strategy FI	65	2.83	5.00	4.0642	.06123	.49363

Affective Strategy FD	65	1.50	4.67	2.7334	.11849	.95529
Affective Strategy FI	65	2.00	4.67	3.8134	.08244	.66466
Social Strategy FD	65	1.67	4.83	3.5411	.09113	.73475
Social Strategy FI	65	1.33	4.17	2.8895	.08955	.72196
Metacognitive Strategy FD	65	1.56	4.56	2.7657	.08134	.65574
Metacognitive Strategy FI	65	1.56	4.56	2.7692	.08212	.66210
Total Strategy FD	65	1.56	4.59	3.0189	.10128	.81654
Total Strategy FI	65	1.96	4.70	3.3765	.08713	.70245
Valid N (listwise)	65					

As seen in Table 3 field-dependent learners had mean score of 2.73 (SD=1.00) in memory strategy while field-independent learners had mean score of 3.19 (SD=.99). In cognitive strategy category, field-dependent learners scored 3.14 (SD=.95) and field-independent learners scored 3.53 (SD=.83). In compensation category, field-dependent learners scored 3.20 (SD=.83) and field-independent learners scored 4.06 (SD=.49). Field-dependent learners scored 2.76 (SD=.65) and field-independent learners scored 2.77 (SD=.66) in metacognitive category. In affective category, field-dependent learners scored 2.73 (SD=.95) and field-independent learners scored 3.81 (SD=.66). With regard to social strategy, field-dependent learners scored 3.54 (SD=.73) and field-independent learners scored 2.89 (SD=.72). Regarding the total strategy use, field-dependent learners scored 3.02 (SD=.82) and field-independent learners scored 3.38 (SD=.70).

Based on descriptive statistics, the largest difference between field-dependent learners and field-independent learners was in affective strategy and smallest difference was in metacognitive strategy. In order to statistically determine any significant differences between the field-dependent and field-independent learners, independent samples *t*-tests were run on memory, cognitive, compensation, social and total categories and Mann Whitney U test was run on affective and meta-cognitive category as the data were not normally distributed. Table 4 shows the results of independent samples *t*-tests and Table 5 shows the result of Mann Whitney U test.

Table 4 Results of Independent Samples *t*-tests

		Levene's Test for Equality of Variances		*t*-test for Equality of means				
		F	Sig	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Memory FD & FI	Equal variances assumed	.082	.775	-2.625	128	.010	-.45954	.17509
	Equal variances not assumed			-2.625	127.935	.010	-.45954	.17509

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		Levene's Test for Equality of Variances		*t*-test for Equality of means				
		F	Sig	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Memory FD & FI	Equal variances assumed	.082	.775	-2.625	128	.010	-.45954	.17509
Cognitive FD & FI	Equal variances assumed	1.111	.294	-2.483	128	.014	-.38969	.15694
	Equal variances not assumed			-2.483	125.774	.014	-.38969	.15694
Compensation FD & FI	Equal variances assumed	13.375	.000	-7.259	128	.000	-.86677	.11940
	Equal variances not assumed			-7.259	104.508	.000	-.86677	.11940
Social FD & FI	Equal variances assumed	.001	.976	5.099	128	.000	.65154	.12777
	Equal variances not assumed			5.099	127.961	.000	.65154	.12777
Total FD & FI	Equal variances assumed	2.495	.117	-2.676	128	.008	-.35754	.13360
	Equal variances not assumed			-2.676	125.206	.008	-.35754	.13360

Based on the results of independent samples *t*-tests, it was found that there were significant differences between field-dependent and field-independent learners in memory, cognitive, compensation, social categories and total strategy use (P<0.05).

Table 5 Result of Mann Whitney U test

	Groups	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Asymp. Sig. (2-tailed)
Affective FD & FI	FD Group	65	45.83	2979.00	834.00	.000
	FI Group	65	85.17	5536.00		
	Total	130				
Meta-cognitive FD & FI	FD Group	65	65.35	4248.00	2103.000	.965
	FI Group	65	65.65	4267.00		
	Total	130				

According to the output of the Mann Whitney U test, significant difference was found between field-dependent and field-independent learners in affective strategy category (U=834.00, P<0.05), but there was no significant difference between field-dependent and field-independent learners in metacognitive category (U=2103.000, P>0.05).

Conclusion

The purpose of the study was to investigate whether there is a significant difference between field-dependent and field-independent learners in terms of language learning strategy use. In other words, the study attempted to uncover the differences between language learners with different cognitive styles in terms of language learning strategy use. Two groups of learners participated in the study, i.e. field-dependent and field-independent learners. After measuring their strategy use and comparing the field-dependent and field-independent learners in terms of strategy use, it was found that significant differences existed in all strategy categories except the metacognitive strategy use. It was revealed in the present study that field-independent learners were significantly better at using learning strategies collectively than field-dependent learners. They were also better at the memory, cognitive, compensation and affective components of strategy use. The only aspect that field-dependent learners were better at was social aspect of the strategy use. However, there was no significant difference between them in terms of metacognitive strategy use. Totally, there was a significant difference between FD and FI learners' language learning strategies and therefore the null hypothesis was rejected.

Based on Ngeow (1999), knowing cognitive styles can be beneficial for learners in that they can use their learning opportunities in a better way and consequently enhance their learning. The cognitive style of field-dependent and field-independent is one area that drew researchers' attention with its application to the educational contexts (e.g., Altun & Cakan, 2006; Daniels, 1996; Ford & Chen, 2001).

In the first place the results of the study corroborates the effect of individual differences in various aspects of second language learning including strategy use. According to Ellis (1985), cognitive style as a learning variable is an individual characteristic and people's manner of perceiving, recalling, and organizing information. The term "cognitive style" can be defined as "self-consistent modes of functioning which individuals show in their perceptual and intellectual activities" (Witkin, Oltman, Raskin, and Karp, 1971, p.3). Stansfield and Hansen also described cognitive styles as "variations among individual in the preferred way of perceiving, organizing, or recalling information and experiences (1983, p. 263). Field-dependency and field-independency are also considered different cognitive styles and according to Witkin and Goodeneough (1977), field-dependents and field-independents rely on either external or internal frames of references in processing information. Therefore, it can be predicted that both learners with these two types of cognitive styles, use strategies that help them in the process of learning but have different

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preferences. Accordingly, it is reasonable to suppose that the differences in cognitive styles might affect the performance of learners in the process of learning including language learning strategy use.

Field-dependency and field-independency determines the cognitive orientation of people and learning strategies is the place cognition has essential role. In the definition of learning strategies, Oxford (1990) points to the role of consciousness and cognition in the identification of learning strategies. By reason it is quite acceptable to assume that cognitive styles such as field-dependency and field-independency would make a difference in use of different strategies. Among the learning strategies studied in the current study memory, cognitive, and compensation strategies are directly related to information processing aspects of cognition which can be directly affect by the cognitive orientation of learners like field-dependency and field-independency.

Cognition is not limited to information processing and includes social and affective aspects too. Lucina, Marco, Claudia, Julian (2007) have pointed to self and social cognition in their neurological examination of cognition. Based on that it can be argued that differences in other categories of language learning strategies such as social and affective strategies are also justifiable when assuming that affection and social aspect of learners are also some other dimensions of cognition.

According to Flavell (1979) Metacognition is defined as knowledge about the cognition and control of cognition through which individuals monitor their cognition and evaluate their efficiencies in different tasks and problem solving activities. It was not expected to come up with a finding that cognitive differences of learners did not affect their metacognitive strategy use. One finding that was not in line with rest of the findings of the current study was that no significant difference existed between field-dependent and field-independent learners in metacognitive category. Therefore, is possible that certain factors like previous instructions, and learning habits of the learners override the effect of cognitive styles on strategy use. Studies have not always been straightforward in showing differences in learning due to cognitive styles (Price, 2004). For instance, Price (2004) found that field-dependency and field-independence cannot predict the qualitative and quantitative performance of learners. Similarly, Richardson (1998) reported that field-dependency and field-independency cannot assess how the autonomy learners are or how they performance in a distance learning context. Moreover, it can be concluded that the effect of cognitive styles on language learning strategy use is not absolute. Various reasons such as measurement errors and learning habits of learners might have moderated the effect of cognitive styles (field-dependency vs field-independency). For instance, when deciding how to choose their strategies to conform to their evaluation of task performances (metacognition), leaners may simply choose the strategies and techniques they have been instructed to use. In addition to such explanations there are also studies that do not readily support the differential effects of field-dependency and field-independency on language learning.

Field-independent learners were better at the memory, cognitive, compensation and affective strategy use. A proper explanation for the better performance of field-independent leaners in aforementioned strategies requires meticulous scrutiny of psychological orientations of field-independent people in various aspects of life including language learning. Literature has not dealt

specifically with such characteristics of field-independent in every aspects of learning strategy use. However, the theoretical and operational definitions of field-independent and their general orientation can provide some explanation. By definition field-independence refers to "the extent to which a person perceives part of a field as discrete from the surrounding field as a whole". (Cited in Bachman, 1990, p.275). In operational term, field-independent people can distinguish a hidden figure within a complicated figure. This illustration of field-dependency shows that field-independent people have more visionary style of thinking. In other words, they are not distracted by the surrounding and can more successfully identify the targets within a complicated surrounding. This property is reminiscent of characteristic of strategic people who can see the big picture and accordingly arrange the objectives so that they can more conveniently reach the goals.

The current study also showed that field-independent learners were overall better strategy users. Therefore, such learners may take advantage of various strategies depending on the task type and their learning goals. They may rely on memory strategy in case memory strategy works better for the task at hand, and similarly they may make use of cognitive, compensation and affective for different tasks and goals. Therefore, it may not be possible to provide a proper explanation for why a field-independent person is better memory, cognitive, compensation, and affective strategy user out of context (without considering task types and learning goals). Furthermore, each of these categories of strategy is related to a particular aspect of mind but it should not be forgotten that at times the distinction between these categories is not clear (Oxford, 1999). For instance, cognitive processing of information may not be achievable without relying on memory or vice versa.

The findings of the study done by Kheirzadeh and Kassaiam (2011) showed no difference in the performance of field-dependent and field-independent students' general listening comprehension. Moreover, the results of the study conducted by Marashi and Moghaddam (2014) did not indicate any significant difference between field-dependent and field-independent learners' critical thinking. On the other hand, some other studies have demonstrated significant differences between filed-dependent and independent individuals. For instance, the results of Alipanahi and Mohajeri's (2014) study showed a significant difference between field-dependent and field-independent Iranian female EFL learners regarding the use of vocabulary learning strategies.

Suggestions and Recommendations

The current study has been circumscribed to a particular scope investigating possible differences between field-dependent and field-independent EFL learners in terms of their perceived use of learning strategies. Studies in future can complement the findings of the current study in the following ways:

- The study was limited to the effect of field-dependency and field-independency on language learning strategy use. In future studies it is suggested that the effect of other cognitive styles such as perceptual styles (visual vs auditory styles) be also investigated in terms of their effect on strategy use.

- Similarly, it is suggested that the effect of cognitive styles on skill-specific strategies be investigated. For instance, it can be studied how learners' cognitive styles affect their vocabulary learning strategies or, how cognitive styles affect the listening strategies of the learners.
- Another area of investigation is strategy instruction. Although cognitive styles can affect the strategy use of learners, it is possible that language learners acquire to use various strategies by being trained properly. Therefore, it is suggested that the effect of instruction on strategy use be investigated while the interactional effect of cognitive styles is monitored.

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