

THE CAUSAL CORRELATION BETWEEN FIELD-DEPENDENCE/INDEPENDENCE COGNITIVE STYLE AND VOCABULARY LEARNING STRATEGIES AMONG IRANIAN EFL LEARNERS

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Abstract- This study aimed to investigate the causal correlation between field-dependence/independence cognitive style and vocabulary learning strategies among Iranian EFL learners. 90 students majoring in English translation at Arak University were chosen. The participants were classified into two groups of field-dependent and independent based on the results of Group Embedded Figure Test (GEFT). Then, a vocabulary learning strategies questionnaire (Schmitt, 2000) was administered. The data was analyzed through structural equation modeling (SEM) statistical analysis. The results showed that there was causal correlation between field-dependent/independent cognitive style and vocabulary learning strategies. The result also revealed that field-dependent learners tended to use social strategies more than field-independent individuals while field-independent learners used cognitive and metacognitive strategies more frequently than field-dependent counterparts.

Key words: Field-dependent/independent cognitive style, vocabulary learning strategies

I. INTRODUCTION

Learners' characteristics are main elements of language teaching and learning. Teachers face to different students with different cultures, nations, gender and learning styles. Focusing on students' psychological traits is crucial issue in teaching and learning process. Teachers usually adopt a similar procedures, style and method for all students while a teacher should be aware of students' psychological traits in order to help students to choose their own learning styles and strategies according to their own psychological cognitive styles.

Among the dimensions of cognitive styles that have been identified, field dependence/independence (FD/I) has received most attention with regard to its educational implications (Gordon & Biglow, 1971; Ehrman, Learer & Oxford, 2003; Yousefi, 2011; Yarahmadi, 2011; Elliott, 1995; Blanton, 2004).

Some students are successful in acquiring vocabulary while others may fail. Vocabulary learning strategies may be useful for some students but useless for others. The main issue is considering learners' cognitive style related to their learning strategies. Therefore, apart from teaching methodologies, learners' vocabulary learning strategies are another crucial factor in acquiring foreign language vocabulary which can make their vocabulary learning more effective.

One point to note about vocabulary learning strategies is that they are not just used by highly proficient learners, but they can be learned and used by others who had not deciphered them on their own (O'Malley & Chamot, 1990).

The impression of vocabulary learning strategies on vocabulary learning is far from negligible. The study of which strategies learners use, when and how, can assist teachers to understand that successful learners use their abilities, skills, and their own styles and strategies.

Nation (2001) believes that a large number of words and vocabularies can be acquired with the aid of vocabulary learning strategies. Vocabulary learning strategies can facilitate vocabulary learning process and also help learners to be autonomous and responsible in their own learning (Schmitt, 2000). Ellis (1994) states that vocabulary learning strategies can actuate explicit vocabulary learning which includes many facets, such as making consciousness awareness of new vocabulary, selective attending, and storing into long-term memory.

II. LITERATURE OF REVIEW

Field-dependence/ independence is considered a kind of cognitive learning style. Cognitive style is referred to a psychological aspect that demonstrate consistencies in an individual's style of cognitive function related to acquiring and processing information (Ausburn & Ausburn, 1978). Hayes and Allinson (1998) define cognitive style as individuals' preferences in gathering, processing, and evaluating information in their environment. According to Saracho (1997), cognitive styles consist of stable attitudes, preferences, or habitual strategies that discern the individual styles of perceiving, recalling, thinking and solving the various identified cognitive styles. She further continues that "the responses to a broad range of circumstances are referred to "style", and the approach surrounding both the perceptual and intellectual undertakings is referred to as the

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“cognitive” style” (p.10). Field-dependence/independence dimensions have been the most extensively studied and has very significant role in learning process (Witkin, Moore, Goodenough & Cox, 1977).

Saracho (1997) defines characteristics of field-dependence/independence in the following way: field-dependent persons tend to be analytical and they can solve problems, whose materials require structuring, they are able to abstract an item from the surrounding field. FD individuals are dependent on their own values and standards. On contrary, field-independent persons tend to be global and they spend long time to solve the same kind of problems. FI individuals use external source of information for self-definition. He summarizes that the field-independent individuals show greater skills in cognitive restructuring over a wide range of procedures while the field-dependent ones show greater interpersonal competences. According to Korchin (1986), Field-independent people are able to manipulate abstract concepts and field-dependent individuals are more at home with people in order to provide them support to judgment and action. Field-independent students are more interested in moving toward fields such as mathematics and the science. Whereas field-dependent students tend to select humanistic and social sciences and human-helping professions.

Hedge (2000) says that learners usually use a range of strategies while they are learning vocabulary. Some of these strategies are called cognitive in which learners work on new words directly in order to understand, classify, and retain them in their own mental lexicon. Strategies like: making inference, using key words, deducing, guessing, checking dictionary are examples of cognitive strategies. Some other strategies are used by learners are called metacognitive strategies which are indirect mental operations that facilitate learning by involving learners consciously in retaining new words. Metacognitive strategies involve: making word cards, listing words, and reactivating vocabulary in a text. Cook (2001) classified vocabulary strategies applied by L2 learners in two general types: 1) strategies for understanding and comprehending words such as; guessing from the text, using a dictionary, making deduction from the word-form, and linking to cognates. 2) Strategies for acquiring and learning words such as; repetition and rote learning, organizing word in the mind, and linking the existing knowledge

Schmitt (2000) classified vocabulary learning strategies into two main groups of strategies: 1) discovery strategies (strategies used by learner to discover learning of vocabulary) and 2) consolidation strategies (a word is consolidated once it has been encountered). He further categorized vocabulary learning into five sub-categories: 1) determination strategy 2) memory strategy 3) cognitive strategy 4) metacognitive strategy 5) social strategy.

Schmitt (2000) says that “Strategies which are used by an individual when faced with discovering new words’ meaning without recourse to another person’s expertise are called determination strategies (DET)”(p.135). He maintains that DET strategies can be done through guessing from context, guessing from an L1 cognate, using reference materials, analysing part of speech, analysing affixes and roots,

analysing any available pictures or gestures, and using a dictionary.

According to Oxford (1991), memory strategies, sometimes called mnemonics. These strategies enable learners to retrieve information from memory whenever they need in production or comprehension. Schmitt (2000) says that cognitive strategies are similar to memory strategies but they include both manipulating mental processing and repeating and using mechanical means to study vocabulary. He continues that strategies such as verbal repetition, written repetition, word lists, putting English labels on physical objects, keeping vocabulary notebook are considered as cognitive strategies. Schmitt (2000) defines metacognitive strategy as “a conscious overview of the learning process and making decisions about planning, monitoring, or evaluating the best way of study” (p. 136). He maintains that strategies such as using English-language media (song, movies, etc.), using spaced word practice (expanding rehearsal), testing oneself with word test, skipping or passing new words, and continuing to study word over time are considered as metacognitive vocabulary learning strategies. Appropriate social strategies which are necessary in learning a language include: asking question, cooperating with others, and empathizing with others.

Since the teacher-centred approach is shifting toward the learner-centered method, the learning and the characteristic of individual learners should be focused. Field dependence/independence as a cognitive factor has important role in learning foreign language. Many studies have been done to probe the effect of field dependence/independence cognitive style on foreign language skills and components.

A number of studies have been conducted on field-dependence/independence cognitive style and language learning strategies. Some of the more relevant studies include the following.

Psychological literature on field-independence indicates that a field-independent individual has increased cognitive restructuring abilities, while a field-dependent person is likely to possess enhanced interpersonal skills. In this regard, Hansen and Stansfield (1981) compared learners’ FD/I cognitive style to foreign language achievement. 300 participants in a beginning-level of Spanish course were involved. It was found that field independence plays a role in second language learning and this role was particularly noticeable in the acquisition of linguistic competence and integrative competence while field-dependence role was particularly significant in the acquisition of communicative competence.

Tinajero, Lemos, Araujo, Ferraces, and Paramo (2012) found that cognitive and metacognitive strategies were used frequently by field-independent learners. 313 Brazilian first-year university students were involved in the study. It was found that field-dependent learners consistently obtain worse results than their field-independent classmates in academic achievement.

Based on the result of study with 408 Spanish children, aged between 13 and 16 years, Tinajero and Paramo (1997) concluded that field-independent boys and girls performed better than field-dependent ones in academic achievement. They suggest that this superiority was only manifested in the cognitive

dimension of field-dependence/independence, evaluated by the GEFT.

Khodadaddy and Zeynali (2012) conducted a study involving 200 students to consider the relationship between field-dependence/independence cognitive style and performance on the IELTS listening comprehension. Results indicated that the learners' cognitive style influences on their listening and task performance. Field-dependent learners outperformed field-independent learners in IELTS listening comprehension and the entire listening task. The results, also, indicated that more specifically, field-independency correlates more significantly with fill-in-the-gap questions and field-dependency cognitive style, however, correlates more significantly with multiple choice and matching questions compared to field-independency cognitive style.

Based on the result of another study with 80 participants, Kheirzadeh and Kassaian (2011) concluded that field-dependence/independence did not affect listening comprehension in general and listening comprehension sub-skills in special. In another study, Yousefi (2011) investigated the relationship between Iranian listening comprehension ability and their cognitive style with 131 participants. The results showed that there is a statistically significant difference between FD and FI learners' performance on listening tests, with the FD style showing a relatively facilitative effect on this skill.

In another investigation of the relationship between field-dependence/independence and listening comprehension strategy use, Ahmady and Yamini (2013) conducted a study involving 138 Iranian female students. Based on the results, FI students used metacognitive, memory, and cognitive strategies more frequently than their FD counterparts, but FD students made more use of social strategies than FI ones.

Yarahmadi (2011) investigated field-dependence/independence and ownership writing differences involving 46 Iranian sophomores English translation participants. The results demonstrated differences in ownership in writing of field-dependent and field-independent students. The use of first person singular pronouns and possessive adjectives was more characteristics of field-dependent students. The finding, also, provided a new dimension that students can enhance their writing power by being aware of style area in which they feel less comfortable.

In an investigation of the effect of field-dependence/independence cognitive style on task-based reading comprehension test scores, Salmani-Nodoushan (2005) conducted a study involving 288 Iranian students. It was found that FD learners outperformed their FI counterparts on true-false, outlining, and elicitation task; on the contrary, FI subjects outperformed FD subjects on sentence-completion and skimming tasks. It also showed that the holistic or analytic nature of reading tasks correlated positively with FD style and negatively with FI style and analytic tasks, by way of contrast, correlated positively with FD style. Based on the results of this study, FD/FI did not affect non-proficient learners' test scores. However, FD cognitive style seems to influence on semi-proficient, fairly proficient, and proficient subjects' test performance. In other

words, the FD/FI cognitive style imposed their strongest effect on reading test performance when test-takers were most proficient. It is assumed that maybe; more proficient test-takers subconsciously monitor their linguistic performance.

A study carried out by Davey (1990) to investigate how the field-dependent/independent cognitive style may affect on learners' reading comprehension performance involving 110 school-age learners. The results showed that FI individuals were more successful than FD subjects on multiple-choice and free-response questions under the condition of no-rereading.

Based on the results of another study with 62 Iranian EFL participants, Sadeghi and Poorghafour (2012) concluded that a significant difference exists between FD/ID participants in terms of using general metacognitive and specific cognitive reading strategies. According to the results, FD learners tended to use general metacognitive reading strategies more frequently than their FI counterparts. The researchers state that this difference may be as the result of the fact that metacognitive reading strategies involve thinking about learning process and that they demand some degrees of creativity. The result also indicated that FD learners used a higher number of specific cognitive strategies than other FI counterparts. It was assumed that the difference might be because of field-dependents' sensitivity to the external clues from their surrounding environment. In other words, FD learners are likely to pay more attention to context than field-independents are. This study also revealed that although FD learners outperformed their FI counterparts by using more general metacognitive and specific cognitive strategies, the difference between FD and FI participants in terms the use of specific metacognitive and general cognitive reading strategies was not significant.

Elliott (1995) conducted a study to investigate the relationship between FD/FI cognitive style and pronunciation accuracy in Spanish as a foreign language. The sample consisted of 66 intermediate students studying Spanish at Indian University. The results revealed that FI had tendency to be better than FD in accuracy of pronunciation in target language.

Carter (1998) conducted a study to investigate whether a relationship exists between FD/I cognitive style and Learners' performance on Spanish language achievement and proficiency and also to explore whether a relationship exists between learners' perception of the foreign language learning process and their own degree of FD/I involving 72 participants in second-quarter Spanish classes at two public mid-western universities. Findings of this study summarized as follows. First, field-independent individuals performed better than field-dependent ones on both formal linguistic achievement and functional language proficiency tasks. Second, the general pattern of perceptions of language learning process was similar for all cognitive style groups.

Jamieson and Chapelle (1987) conducted a study to investigate the type of relationship existing among cognitive styles and strategies among 33 ESL students working with computerized spelling and dictation lessons. They concluded that certain differences exist between FI and FD groups in

applying strategies. FI students tend to use metacognitive strategies, which involve monitoring output, preparation more frequently than their FD counterparts. This research also showed that it is better to consider learning strategies in concert with cognitive style and that computer collection of strategy data is a reliable way of investigating strategies on different activities over a long period of time.

In short, the various aspects of the relationship between field dependent/independent cognitive style and foreign language learning have already extensively studied in isolation. However, there seems to be a paucity of research on the causal correlation between Field-dependent/independent and vocabulary learning strategies in Iran. Thus, the primary focus of the present study is on investigating the causal correlation between Field-dependent/independent and vocabulary learning strategies in order to fill part of the existing gap in this little explored area.

III. STATEMENT OF THE PROBLEM

Lack of attention to vocabulary instruction is a rational reason to teach vocabulary. According to Sims and Sims (2006), the way individual learns (person's learning style) can help them in academic achievement. Teachers' awareness of learners' cognitive styles can help them improve outcomes of learning for most individuals. Thus in case of learning vocabulary in foreign language, students need to be familiar with vocabulary leaning strategies.

Research on the causal correlation between field independence/dependence, and vocabulary learning strategies among Iranian EFL learners is very limited in Iran and is an issue which is partially ignored. The present study is an attempt to examine it.

IV. RESEARCH QUESTIONS AND HYPOTHESES

In order to get the good result based on what was mentioned earlier and with regard to the focus of the present research, the researcher aims to find answers to the following questions:

1-Is there any significant causal correlation between field-dependent/independent cognitive style and the use of vocabulary learning strategies by Iranian EFL learners?

2-Are there any significant differences in the most and the least frequently used category of vocabulary learning strategies by Iranian EFL learners?

In line with the above questions, the following null hypotheses are formulated:

H01- There is no significant causal correlation between field dependent/independent cognitive style and the use of vocabulary learning strategies by Iranian EFL learners.

H02- There are not significant differences in the most and the least frequently used category of vocabulary learning strategies by the Iranian EFL learners.

V. SIGNIFICANT OF THE STUDY

Since vocabulary learning strategies is in its early stages, the rational for vocabulary learning strategies is that researchers can make a list of effective vocabulary learning strategies used by FD/FI learners; then, teachers, syllabus

designers, material developers, and less successful learners may make use of them to facilitate vocabulary learning.

VI. METHOD

Participants

The participants of the present study included 101 (61 female and 40 male) Iranian B.A students majoring in English Translation at university of Markazi; Arak University. All of the participants were native speakers of Persian. The age of participants ranged from 20 to 24 years old. After the administration of the Michigan vocabulary test and taking the results into account, the number of participants was reduced to 90. Number of 11 participants were excluded from the study because they had a different level of vocabulary knowledge.

Instruments

In order to homogenize the participants, the vocabulary subtest of the Michigan test of English language proficiency (MTELP) was administered. The vocabulary subtest given to the participants included 40 multiple-choice vocabulary items.

In order to assess the participants' dimension of the cognitive styles of field-dependence/independence the GEFT test which is a psychological test developed by Witkin, Oltman, and Raskin, 1971 (Blanton, 2004) was administered. It includes 18 geometrical simple figures embedded in more complex figures. In order to assess the kind of vocabulary learning strategies are used by the participants. The questionnaire in this study is Schmitt's vocabulary learning strategy adopted from Bennett (2006). It contains 41 items likert scale questionnaire with the available answers including: never, seldom, often, sometimes, and always. Alpha reliability estimated by the researcher of the present study reported at 0.85.

Procedures

Initially a multiple-choice 40-item Michigan proficiency test was administered on 110 participants for homogenizing students' vocabulary knowledge. The GEFT test which consisted of 18 figures was administered. Then, vocabulary learning strategies questionnaire was administered in order to collect data about the kind of vocabulary learning strategy used by participants.

VII. DATA ANALYSIS

To analyze the collected data in order to examine the research hypothesis and answer the research question, the structural equation modeling (SEM) procedure was used. SEM analysis was run to see which cognitive styles (FD or FI) (as independent variable) can be predictor of the kind of vocabulary learning strategy (as dependent variables).

VIII. RESULTS

Investigation of first question

The first research question sought to investigate the causal correlation between EFL learners' FD/FI cognitive style and their use of vocabulary learning strategies. To answer this question, a structural equation modeling (SEM) was used. The results of the effect of cognitive style on vocabulary learning strategies are presented in table1.

Table1. The effect of cognitive style on vocabulary learning strategies

cognitive style (FD/FI)			
Significance	Effect percentage	Standardized Total Effects	
0.000	-	1	Vocabulary
0.161	%7.98	0.171	Memory strategy
0.011	%31.34	0.671	Cognitive strategy
0.012	%30.59	0.655	Metacognitive strategy
0.026	%26.80	-0.574	Social strategy
0.302	%3.26	0.07	Determination strategy

As table1 shows the total effects of cognitive style (FD/FI) on vocabulary learning is significant p value: 0.000 and the value of standardized total effect is 1(the value of standardized total effect is between 1 to -1) which means cognitive style has effect on vocabulary learning strategies and also there is causal correlation between them.

Figure1 is a SEM model which illustrates the results of table 1 graphically. Rectangles are representative of observed variables which cognitive style is observed variable in this study that can be observed through GEFT test. Circle in this model is indicator of latent variables that in the present study vocabulary learning strategies are concerned as latent variables that is made of five observed variables through applying questionnaire. On-way arrows in the model show the effect of variables on each other and also causal correlation. Curved arrows illustrate the correlation between variables in the model. According to the figure, determination strategy and memory strategy are correlated which is reported $r= 0.5$. There is also correlation between cognitive and metacognitive strategies variables that is reported at $r=0.9$. The numbers on the arrows show the standardized effect of variables on each other. Cognitive style has the most effect on vocabulary learning strategies ($E=1$) and the least effect on determination strategy ($E=0.07$).

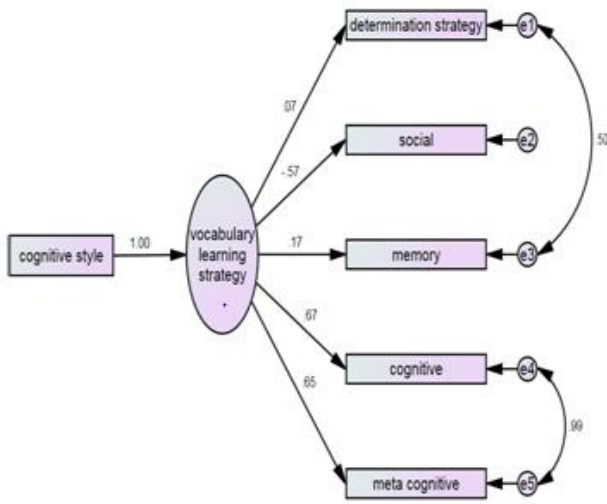


Figure 1. The structural equation model

Figure1 reports that effect of cognitive style on each dimension of vocabulary learning strategies is significant.

They show that the effect of cognitive style on cognitive strategy is $E= 0.67$ with the P value less than 0.05 (P value= 0.01) which means cognitive style has positive effect on cognitive strategy. Since the effect is positive it is concluded that with the shifting from FD to FI, the scores of cognitive strategy variable will be increased that means FI participants use cognitive strategies more than FD ones (in the SPSS the value of $FD=1$ and $FI=2$ so shifting from value of 1 to 2 means increasing the score of variables).

In the case of determination and memory strategies variables, the total effects are respectively: $E=0.07$, $E= 0.171$ and P value of 0.3 and 0.1 respectively that are more than 0.05. It indicates that the effect of cognitive style on memory and determination strategies is not significant. The total effect of cognitive style on social strategy variable is $E= - 0.574$ with the P value of 0.026 is indicative of having significant indirect effect. Since the effect is negative, it is concluded that shifting from FD to FI, the score of social strategy will be decreased. It means that FD participants use social strategy more than FI ones.

Investigation of second research question

The aim of the second research question was to examine the kinds of vocabulary learning strategies used by FD and FI group. Table2 illustrates the results of homogeneity of variance between FD and FI groups. The results show that F-Leven test has P value more than 0.05 which suggests that the assumption of homogeneity of variance is observed.

According to the table 2, the means of determination strategies variables are nearly equal $XFD= 3.17$, $XFI=3.23$ and the means of social strategies are $XFD=3.17$, $XFI=3.11$ respectively, therefore there are not any significant differences between FD and FI in using determination and memory strategies.

In the case of cognitive strategy and metacognitive strategy, the P value is less than 0.05 ($p= 0.00$ for both variables) and the mean of FI group in cognitive strategy ($X=3.38$) is more than FD ($X= 2.50$) group. The mean of metacognitive strategy in FI ($X=3.48$) is also more than FD ($X=2.84$) ones. It can be concluded that FI participants used cognitive and metacognitive strategies more than FD individuals.

Social strategy variable has P value less than 0.005 ($P= 0.000$) and the mean of FD group in social strategy variable ($X= 2.64$) is more than FI ($X=1.92$) that can be concluded that FD participants used social strategy more than FI ones.

Sig	Df	T	Sig	F-leven	Std. Deviation	Mean	N	Cognitive Style	
0.512	88	0.66	0.134	2.29	0.46	3.17	61	FD	determination strategy
					0.39	3.23	29	FI	
0.000	88	6.67	0.631	0.23	0.46	2.64	61	FD	Social
					0.52	1.92	29	FI	
0.102	88	1.65	0.938	0.01	0.46	3.15	61	FD	Memory
					0.45	3.11	29	FI	
0.000	88	8.42	0.612	0.26	0.46	2.50	61	FD	Cognitive
					0.47	3.38	29	FI	
0.000	88	8.03	0.179	1.84	0.36	2.84	61	FD	meta cognitive
					0.34	3.48	29	FI	

Table.2. the test of homogeneity of variance

IX. Discussion

The present study attempted to investigate the causal correlation between field-dependent/independent cognitive style and types of vocabulary learning strategies are more used by each group. One of findings of the present study was that cognitive style (FD/FI) had casual correlation with vocabulary learning strategies. This result is in line with Riding and Sadler-Smith (1997), who argue that individuals' cognitive style has relationship with learning strategies and they further state that the lackness of cognitive style (FD/FI) in training design process has the very important role in development of the efficiency and effectiveness of learners learning and may also help them in recognizing their learning difficulties.

This finding also supports Shi's (2011) finding that cognitive style (FD/FI) has significant influence on learners' choice of learning strategies. In addition, this finding supports that of Alipanahi and Mohajeri who showed that there is significant relationship between FD/FI cognitive style and vocabulary learning strategies. It is also lends support to that of Tinajero, Castedo, Guisande, and Paramo (2011) who revealed that field dependence/independence is one of the most heuristic cognitive style constructs and has been shown consistently to effect academic results of students and their educational level through using learning strategies.

This finding is also consistent with Naimie, Abuzaid, Siraj, Shagholi, and Hejailie's (2010) finding that cognitive style (FD/FI) can be considered as an important factor in which affect on language learning strategies. The finding of the study also lends support to Blanton's (2004) findings, who studied the influence of cognitive style on students' reading test. He found that cognitive style (FD/I) had a significant correlation with learners' success in reading performance.

The finding of present study is also compatible with finding of Elliott (1995) that revealed that cognitive style (FD/FI) enhanced learners' accuracy of pronunciation. Meanwhile, it corroborates the findings of Behnam and Fathi (2009) that showed that Field-dependent/independent cognitive construct can be considered as one crucial factor in reading performance.

Another result of the present study was more frequent vocabulary learning strategies for FI were cognitive and metacognitive strategies and for FD group, social strategy was the most frequent strategy. This finding collaborate the findings of Ahmady and Yamini (2013), that FI individuals used cognitive and metacognitive strategies more frequently than their FD counterparts, but FD learners made more use of social strategies than FI ones. The finding of present study is also in accordance with Jemieson and Chapelle (2006) finding, which revealed that there are certain differences between FD and FI group in using learning strategies. They also showed that FI students tend to use cognitive and metacognitive strategies more frequently than their FD counterpart but it is inconsistent in this part of the result that FI participants used memory strategies such as elaboration, grouping, retention, etc. while the present study revealed that

FD participants used more social strategy than FI counterparts.

This finding is also in line with Brown (2000) and Ellis (1994) who argued that there is one strategy type that is used more frequently by FD learners, and it is social strategy such as native interaction. They further state that FD learners inherently tend to be more active in face-to-face interactions and it is the reason that why they make use of social strategy more frequently than FI ones.

The observed discrepancy between the findings of the present study of above-mentioned studies could be partially attributed to the following factors. It is worth noting that the proficiency level of learners might affect vocabulary learning strategy use. Sex differences may be considered as another factor contributing such differences in the finding. Sex differences were not taken into consideration in the present study although they might have affected the vocabulary learning strategy use and choice.

Another factor which might affect on using vocabulary learning strategy is cultural differences. The participants of the present study were Iranian learners. According to Varnum, Grossmann, Kitayama, and Nibett (2009), Easterns have different pattern of thinking and perception. They continue that Easterns tend to be more holistic.

One of the possible reasons that may justify why FD learners used social strategy more frequently is that FD individuals tend to be group-oriented, gregarious, they are sensitive to social interaction, and they are externally referential (Hall, 2000) while FI individuals tend to show greater skills in cognitive restructuring over a wide range of procedure and they tend to be more global and analytic (Saracho, 1997).

X. CONCLUSION

The purpose of the present study was to investigate if field-dependence/independence cognitive style has a causal correlation with vocabulary learning strategies among Iranian EFL learners. Some students are more successful in learning foreign language vocabulary by used vocabulary learning strategies. In general, it can be claimed that inclusion of vocabulary learning strategies in the learning of foreign language vocabulary can have benefits such as increasing learners' awareness of their own strategies, increasing learners' responsibility and autonomy in learning vocabulary, and so on. Specifically, several studies have shown that there is significant relationship between FD/FI cognitive style and vocabulary learning strategies. In order to reach a better understanding of the causal correlation between FD/FI cognitive style and vocabulary learning strategies, other factors related to vocabulary learning such as sex, age, culture, learning strategies, learners' proficiency level and so on need to be considered. Inclusion of the result of this study in teaching vocabulary can provide teachers with appropriate pedagogical and useful guideline. Overall, the study presented in this paper seems to provide considerable evidence to support the assumption that FD/FI cognitive style is a determinant of success in foreign language vocabulary learning.

In conclusion, it has to be emphasized that FD/FI cognitive style should be regarded as an important factor in

vocabulary teaching. Undoubtedly, the question of the correlation between FD/FI cognitive style and vocabulary learning strategies leaves much room for further research.

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