Identifying Young Learners' Learning Styles among Iranian EFL Learners

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Abstract—The purpose of this study was to identify preferred perceptual learning styles of Iranian young learners. To accomplish this aim, a Perceptual Learning Style Preference Questionnaire (PLSPQ) used to measure the students' preferred learning styles. The participants of the current study were 60 high school students. They were first-year high school male students studying in Tehran, Iran. The analysis of data revealed that the most preferred learning style was visual learning style (30% of the participants), and the less preferred one was group learning style (5%). The second to fifth place belonged to tactile (25%), auditory (20%), individual (15%) and kinesthetic (10%) learning style, respectively.

Index Terms—learning styles, Iranian young learners, PLSPQ, EFL

I. INTRODUCTION

There are many factors that affect students' learning that some of them are specified to individual learners. Different students have different preferred learning styles to perceive, process, take in and understand information. Being aware of students preferred learning style is lucrative for both teachers to decide on their teaching styles and students to decide on the learning strategies more suit their dominant learning style. Soo (1999) emphasized on practices that students prefer to do and corroborate this fact that "differences in learners' learning styles affect the learning environment by either supporting or inhibiting their intentional cognition and active engagement" (p. 289).

Each student has his/her own learning preferences, and as Brooks (1997) explained, all strategies do not work for all student and some of them are strength in a strategy but some may be weak in the same one (cited in Wade, 1990). These weaknesses and strengths are referred to as learning preferences or learning styles. Although learning styles just show their learning preferences, and it does not mean that it categorizes learners into separate categories, but the consideration of learning styles is important in professional teaching.

As different people possess different characteristics, so they learn in different ways that known as learning styles. Learning style defined as "A term that describes the variations among learners in using one or more senses to understand, organize, and retain experience" (Reid, 1987, p. 89). More deeply, Felder and Henriques (1995, p. 21) explained it as "the ways in which an individual characteristically acquires, retains and retrieves information".

Sensory or perceptual learning style depends on the physical environment in which learning occurs by using senses to perceive data and it is defined as a preference for auditory, visual or tactile learning modalities (Dunn, Dunn & Price, 1975; Jhaish, 2010). Sarasin (1998) claimed that perceptual perspective considers aspects of different learning style theories by synthesizing their characteristics into an approach based on behaviors and/or actions of classroom situation.

Some of the fundamental characteristics of different learning styles are proposed by Reid (1995). These fundamentals are stated below:
• Every person possess a learning style
• Learning styles are in wide continuums
• They are value-neutral
• Students must be encouraged to "stretch" their learning styles
• Often, students' strategies are linked to their learning styles;
• Students need to be aware of their learning strengths and weaknesses

Recognizing the learning style of non-native English speakers is also beneficial for a range of stakeholders who involve in EFL or ESL teaching and learning. Reid (1987), as one of the pioneer researchers of preferred learning style stated that "identifying the learning styles preferences of non-native speakers (NNSs) may have wide-ranging implications in the areas of curriculum design, materials development, student orientation, and teacher training" (p. 88).

So, the current paper attempts to identify the preferred perceptual learning styles (visual, auditory, kinesthetic, tactile, individual and group learning styles) of Iranian young learners (first year high school male students).

II. REVIEW OF RELATED LITERATURE

There are many years that scholars search how mind function, how it process new information, and how is affected by any learner's perception. These studies eventuated to form the concept of individuals preferred learning style. Some

studies have already done to explore the learners' learning style preferences worldwide and in the EFL context of Iran. Some of them are mentioned below:

Witkin (1962) was the pioneer of learning style studies proposing that individuals may possess analytic (i.e., field independence) or global predisposition to information processing (i.e., field dependence). After that, many studies conducted to investigate different dimensions of learning style. Eight out of 20 style dimensions distinguished by Oxford and Anderson (1995) as important learning styles. Among these, (sensory or physiological) preferences figure prominently and are primarily related to how we take in information. They include visual, auditory, kinesthetic and tactile dimensions.

Karthigeyan and Nirmala (2013) conducted a study on learning style preference of English language learners through identifying the preferred learning style of higher secondary school learners considering some factors as gender, locality, nature of school board and class context. The participants of the study were 582 higher secondary school students composed of boy and girl, rural and urban students from state school board and matriculation school board. The instruments used in this study the PLSPQ developed by Joy Reid. The students' perceptual learning style preferences were categorized based on their demographic variables. Based on the calculated frequencies of the questionnaire, the most dominant preferred learning styles were visual, and auditory and the less dominant ones were kinesthetic and individual learning styles.

Naserieh and Anani Sarab (2013) was explored the frequency of learning style preferences of graduate participants and the role of gender, age, discipline, and proficiency level. The participants were selected randomly through two-stage sampling. The PLSPQ questionnaire was administered and slightly modified. The findings showed that they preferred kinesthetic and tactile learning styles and dispreferred group learning style. Gender, age, and field of study seemed to exert an influence on learning styles.

Pourhossein Gilakjani (2012) purposed to understand the effect of learning styles on the teaching process. The participants were 100 (40 male and 60 female) Iranian EFL university students of English majoring in Language Translation Department. They were aged 23 to 28. The participants were Iranian translation university students. A Lickert questionnaire was used to collect data. The results showed that about 50% preferred visual, 35% auditory, 15% kinaesthetic learning style.

Saylağ (2011) aimed to discover EFL participants' perceptual learning styles (visual, verbal, aural, physical, logical, social and solitary) through an inventory and interview. The results declared that 60% of the participants possess visual learning style as the majority, 20% of them possessaudio learning styles and the rest 20%chose each three learning styles in equal proportion.

Shirani Bidabadi and Yamat (2010) conducted a study to find the students' learning styles preferences. The participants were 62 Iranian university students. The instrument used to collect data was a Learning Style Questionnaire. The results showed that the highest mean value belonged to "communicative learning style" while the lowest belonged to analytical type of learning.

Dunn and Dunn (1977) found that only 20-30% of school-age children appear to be auditory learners, that 40% are visual, and that the remaining 30-40% are tactile/kinesthetic, visual/tactile, or some other combinations (as cited in Saylağ, 2015).

III. METHOD

A. Participants

The participants of the current study were an intact group of students selected based on convenience sampling. The participants were first-year high school male students studying in North Khorasan schools of Iran who enrolled in a required English course, 'English for High School Students'. As for the course schedule, it was a semester-long course meeting four hours per week for 16 weeks. The compulsory textbook for them was 'English Book 1' by Birjandi, Norouzi and Mahmoodi (2014).

The participants prior to data collection were 60 high school EFL learners that all were male. Their ages ranged from 14 to 15. This course was the one that followed the English lessons they already had in guidance school, so they had the sufficient information that was needed to pass this semester, at least in terms of grammar. All of their conditions as their age range, the textbook in use, number of the sessions, and the course instructor were the same for all the participants. Moreover, the level of proficiency of all three groups was the same.

The participants in all three groups were completely aware that they were participating in a research study, and they were informed about the purpose and procedures of the research. They also knew that their tests' scores would neither be disclosed nor affect their course grades.

B. Instrumentation

The instrumentation used in this study included a PLSPQ (Perceptual Learning Style Preference Questionnaire). The mentioned questionnaire included 30 randomly ordered statements and its aim was to divide the students into six learning styles (Five statements on each learning style): Visual, Auditory, Kinesthetic, Tactile, Individual, and Group. The Likert-type questionnaire including five-point questions, ranging from 1 (strongly disagree) to 5 (strongly agree). Reid (1987) reported that the PLSPQ was normalized and the "validation of the questionnaire was done by the split-half

method. Correlation analysis of an original set of 60 statements (ten per learning style) determined which five statements should remain within each subset" (p. 92). The questionnaire was translated into Persian and piloted by Naserieh and Anani Sarab (2013). The validation of the questionnaire was calculated (73%). PLSPQ is presented in Appendix A.

C. Procedures

First, the translated version distributed among the participants of the current study and it took 20 minutes for them to complete the whole items. In analyzing the data of the questionnaire, the frequency and percentage of each item were calculated and then the frequency and the percentage for each item were given. Then, the students were divided into one of the six groups of perceptual learning styles (Visual, Auditory, Kinesthetic, Tactile, Individual, and Group) based on the dominant frequency of answers.

IV. RESULTS

This section aims at providing an in-depth interpretation of the results as to how the collected data can help to answer the problem proposed in this study. It must be mentioned that in the questionnaire, the questions 16, 11, 14, 25, and 26 represent tactile learning style. The items 19, 2, 8, 22, and 15 represent kinesthetic learning style. The items 6, 10, 12, 24, and 29 represent visual learning style. The items 1, 9, 17, 20, and 7 represent auditory learning style. The items 13, 18, 27, 28, and 30 represent individual learning style. And finally, the questions 3, 4, 5, 21, and 23 represent group learning style. The following table (Table 1) shows the dispersion of the questionnaire's questions related to their specific learning style:

TABLE 1.
DISPERSION OF QUESTIONS RELATED TO THEIR SPECIFIC LEARNING STYLE

Learning styles	Questions
Visual	6, 10, 12, 24, 29
Auditory	1, 9, 17, 20, 7
Kinesthetic	19, 2, 8, 22, 15
Tactile	16, 11, 14, 25, 26
Individual	13, 18, 27, 28, 30
Group	3, 4, 5, 21, 23

The data collected from the questionnaire was analyzed in relation to the purpose of the study using SPSS to conduct frequencies and percentages. The results are presented in Table 2. Below:

TABLE 2.
FREQUENCIES AND PERCENTAGES OF PARTICIPANTS' ANSWERS TO PLSPQ (PERCEPTUAL LEARNING STYLE PREFERENCE QUESTIONNAIRE)

Participants' Responses										
Items	1 Never		2 Rarely		3 Sometimes		4 Usually		5 Always	
	f	%	f	%	f	%	f	%	f	%
1	20	%33.3	28	%46.6	1	%1.6	3	%5	8	%13.3
2	19	%31.6	23	%38.3	1	%1.6	2	%3.3	3	%5
3	22	%36.6	35	%58.3	0	0%	1	%1.6	2	%3.3
4	20	%33.3	37	%61.6	0	0%	0	0%	3	%5
5	19	%31.6	38	%63.3	1	%1.6	0	0%	2	%3.3
6	19	%31.6	20	%33.3	4	%6.6	6	%10	11	%18.3
7	18	%30	30	%50	2	%3.3	5	%8.3	5	%8.3
8	15	%25	27	%45	0	0%	3	%5	3	%5
9	15	%25	33	%55	1	%1.6	3	%5	8	%13.3
10	17	%28.3	22	%36.6	2	%3.3	5	%8.3	14	%23.3
11	22	%36.6	23	%38.3	2	%3.3	4	%6.6	9	%15
12	18	%30	21	%35	1	%1.6	4	%6.6	16	%26.6
13	26	%43.3	25	%41.6	2	%3.3	2	%3.3	5	%8.3
14	20	%33.3	25	%41.6	1	%1.6	6	%10	8	%13.3
15	20	%33.3	24	%40	1	%1.6	1	%1.6	4	%6.6
16	19	%31.6	26	%43.3	3	%5	4	%6.6	8	%13.3
17	16	%26.6	32	%53.3	3	%5	2	%3.3	7	%11.6
18	20	%33.3	31	%51.6	0	0%	1	%1.6	8	%13.3
19	19	%31.6	25	%41.6	0	0%	2	%3.3	4	%6.6
20	17	%28.3	31	%51.6	3	%5	3	%5	6	%10
21	28	%46.6	29	%48.3	1	%1.6	0	0%	2	%3.3
22	21	%35	23	%38.3	1	%1.6	1	%1.6	4	%6.6
23	20	%33.3	37	%61.6	1	%1.6	1	%1.6	1	%1.6
24	15	%25	24	%40	4	%6.6	6	%10	11	%18.3
25	21	%35	24	%40	1	%1.6	5	%8.3	9	%15
26	20	%33.3	25	%41.6	3	%5	2	%3.3	10	%16.6
27	22	%36.6	29	%48.3	1	%1.6	1	%1.6	7	%11.6
28	18	%30	33	%55	0	0%	0	0%	9	%15
29	12	%20	27	%45	6	%10	7	%11.6	8	%13.3
30	21	%35	30	%50	0	0%	2	%3.3	7	%11.6

The above table showed the frequencies and percentages of participants' answers in terms of Lickert answers (never, rarely, sometimes, usually, and always). Analyzing the results showed that higher number of participants answered the questions related to visual learning style (6, 10, 12, 24, and 29) positively. It means that about 30% of them answered: sometimes, usually, and always to these questions. The answers' to the questions related to tactile learning style (11, 14, 16, 25, and 26) showed that this kind of learning style is in favor of 25% of the participants. In the third place, the answers' to the questions related to auditory learning style (1, 7, 9, 17, and 20) showed that this kind of learning style is in favor of 20% of the participants. In the fourth place, the answers' to the questions related to individual learning style (13, 18, 27, 28, and 30) showed that this kind of learning style is in favor of 15% of the participants. In the fifth place, the answers' to the questions related to kinesthetic learning style (2, 8, 15, 19, and 22) showed that this kind of learning style is in favor of 10% of the participants. Finally, the lowest frequencies and percentages to the answers' to the questions related to group learning style (3, 4, 5, 21, and 23) showed that this kind of learning style is in favor of 5% of the participants. The data also analyzed through calculating means and standard deviations for each kind of learning style. The results are presented in following.

The means and standard deviations for each kind of learning style presented in the following table (Table 3):

TABLE 3.
PERCEPTUAL LEARNING STYLE PREFERENCE OF STUDENTS

Learning styles	Mean	Standard deviation
Visual	22.15	5.2
Auditory	20.13	6.1
Kinesthetic	18.13	3.5
Tactile	20.53	3.2
Individual	19.89	3.6
Group	16.67	6.6

When the responses that the participants gave to the questionnaire were analyzed, comparing the means (in the above table) showed that the most preferred learning style was visual learning style, and the less preferred one was group learning style. The second place belonged to tactile learning style, the third place to auditory learning style, the fourth learning style to individual learning style and the fifth place to kinesthetic learning style.

V. DISCUSSION AND CONCLUSION

As mentioned earlier, the current research was to identify preferred perceptual learning styles of Iranian young learners. Based on the results of the current study, some conclusions can be presented for each research question:

According to the findings of the current study, the frequency analysis, it was discovered that the most preferred learning style was visual one which is the followed by tactile learning style and then auditory, individual and kinesthetic learning styles. the participants' least preferred learning style is group learning style. Theoretically, the findings of the present study generally provide positive support for the significant role of perceptual learning styles in teaching and learning process. Being compatible with students' learning styles helps to create purpose in the classroom situation that will heighten motivation and enhance students' and teachers' interest and performance.

In practice, it means by increasing students' and teachers' motivation and interest through providing stimulating and appealing tasks and materials that suit more to the way they percept input, it can push students toward better, autonomous and self-regulated learning. It other words, knowing the learning style can also be very supportive in the individualized instruction of the students to plan and make better use of their study time and learning strategies.

The findings of the present research are in line with the results of the study conducted by Carbo (1983) and found visual and auditory as the most preferred learning styles. It is in line with Naserieh and Anani Sarab's (2013) study which found group learning style as the most disfavored one. It is also compatible with the findings of Karthigeyan and Nirmala (2013) that also used PLSPQ and found that the most dominant preferred learning style of their participants was visual. Saylağ (2011) also found that 60% of participants preferred visual learning style that is similar our results. Pourhossein Gilakjani (2012) also reached 50% of participants prefer visual learning style and 15% prefer kinesthetic learning style that are similar to our findings. Our results are in contrast to the results of the study carried out by Shirani Bidabadi and Yamat (2010) and found communicative learning style as the dominant preferred learning style of their participants.

the findings of the current study will be helpful for teachers to fit their teaching styles to their students' learning styles; students to be aware of the role of their preferred learning style on their language learning; curriculum designers to consider changes of learning environments and its impact on teaching and learning pedagogy.

As already stated, this study was carried out among the male first-grade high school students. Further studies can be done among high school students studying in other grades, university students or foreign language institutes learners. Indeed, conducting a similar study with a greater number of students and containing both male and female participants is suggested.

APPENDIX

Translated Perceptual Learning Style Preference Questionnaire (PLSPQ)

پرسشنامه‌ی سبک‌های یادگیری زبان انگلیسی
1=هرگز
2=بندرت
3=گاهی
4=معمولاً
5=همیشه

1- وقتي معلم دستورالعمل فعاليتي را توضيح مي‌دهد، بهتر مي‌فهمم.

2- ترجيح مي‌دهم با انجام فعاليت‌هاي عملي در کلاس مطالب را ياد بگيرم.

3- در کلاس وقتي به صورت گروهي کار مي‌کنم، کار بيشتري انجام مي‌دهم.

4- وقتي به صورت گروهي درس مي‌خوانم، بيشتر ياد مي‌گيرم.

5- در کلاس وقتي به صورت گروهي کار مي‌کنم، مطالب را بهتر از هميشه ياد مي‌گيرم.

6- وقتي معلم مطلبي را روي تخته مي‌نويسد و من آن را مي‌خوانم، آن مطلب را بهتر ياد مي‌گيرم.

7- وقتي کسي (مثلاً معلم) به من مي‌گويد که چگونه فعاليتي درسي را انجام بدهم، آن فعاليت را بهتر ياد مي‌گيرم.

8- وقتي تدريس با کار عملي همراه باشد، بهتر ياد مي‌گيرم.

9- آنچه را که در کلاس شنيده‌ام بهتر به خاطر مي‌سپارم تا آنچه را که خوانده‌ام.

10- وقتي دستورالعمل فعاليت‌ها را مي‌خوانم، آن‌ها را بهتر به خاطر مي‌سپارم.

11- وقتي نکات آموزشي را به مدلي عملي تبديل مي‌کنم، آن‌ها را بيشتر ياد مي‌گيرم.

12- وقتي دستورالعمل فعاليتي را مي‌خوانم، آن فعاليت را بهتر مي‌فهمم.

13- وقتي به تنهايي مطالعه مي‌کنم، مطالب را بهتر به خاطر مي‌سپارم.

14- وقتي پروژه‌اي کلاسي را انجام مي‌دهم، بيشتر ياد مي‌گيرم.

15- با انجام کارهاي عملي در کلاس، از يادگيري لذت مي‌برم.

16- هنگام مطالعه، وقتي مطالب را به صورت تصويري (مثلاً نمودار و جدول) منعکس مي‌کنم، آن‌ها را بهتر ياد مي‌گيرم.

17- وقتي معلم مطلبي را توضيح مي‌دهد، بهتر ياد مي‌گيرم.

18- وقتي فعاليتي را به تنهايي انجام مي‌دهم، بهتر ياد مي‌گيرم.

19- وقتي در يک مکالمه نقشي را بازي مي‌کنم، مطالب را بهتر مي‌فهم.

20- وقتي در کلاس درس به کسي (مثلاً معلم) گوش مي‌دهم، بهتر ياد مي‌گيرم.

21- وقتي تکليفي را با دو يا سه همکلاسي انجام مي‌دهم، بيشتر از آن لذت مي‌برم.

22- وقتي موارد کاربرد مطالب آموزشي را عملاً انجام مي‌دهم، آنچه را که ياد گرفته‌ام بهتر به خاطر مي‌سپارم.

23- ترجيح مي‌دهم با ديگران درس بخوانم.

24- با خواندن مطالب، آن‌ها را بهتر ياد مي‌گيرم تا با شنيدن آن‌ها.

25- از انجام پروژه‌هاي کلاسي لذت مي‌برم.

26- وقتي در فعاليت‌هاي مرتبط با درس شرکت مي‌کنم، بهتر از هميشه ياد مي‌گيرم.

27- فعاليت‌هاي کلاسي را به تنهايي بهتر انجام مي‌دهم.

28- ترجيح مي‌دهم به تنهايي روي پروژه‌ها کار کنم.

29- با خواندن کتاب‌هاي درسي بيشتر ياد مي‌گيرم تا اينکه به توضيحات معلم گوش دهم.

30- ترجيح مي‌دهم به‌تنهايي کار کنم.

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