Perceptual Learning Style Preferences of EFL Libyan University Learners

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Abstract: This paper investigates Libyan EFL learners' perceptual learning style preferences with the aim to develop English language instruction at university and enhance the Libyan learners' learning of English. The participants were forty female first year university students, studying at Alasmaria University, Zliten, Libya. Their perceptual learning style preferences was identified using Reid's (1995) taxonomy of sinsory modalities (visual, auditory, tactile, and kinesthetic). The quantitative data was gathered via a PLSPQ questionnaire which was analysed using descriptive statistics, while a semi-structured interview provided qualitative data and was categorized into themes. The results revealed that EFL university Libyan students had multiple learning styles with at least auditory and kinesthetic as their dominant learning style preferences, followed by visual and tactile styles. The findings of this study would help language teachers to be aware of their students' percepual learning style as a major factor influence students' achievement and success, and create a meaningful learning environment by combining various methods and activities in order to achieve the objective of teaching and learning process.

Keywords: Learning Styles; Perceptual Learning Style Preferences; EFL Learners; English Language Instruction; Academic Achievement.

I. INTRODUCTION

In most EFL context, particularly in Libya, teaching of English language is still dominated by teacher-centered approach that leads to ignorance of learners' different styles. [1] declares that at most EFL university level "the professor lectures to a large group of student who are expected to absorb and memorize the content" (p.33). Whereas, effective learning requires flexibility and creativity in instruction that respond to the learner's individual needs. Therefore, one of the challenging issues at the tertiary level is related to matching the instructional strategies with the students' learning styles in order to improve the academic performance [2]. In addition, [3] points out that without having awareness of students' style preferences teachers are not likely to provide an effective instruction. [4] has called for "teaching for diversity and equity" (p.29) and provide all students with a variety of learning opportunities adjusted to their needs. To this end, teachers can use different strategies and methods in order to narrow the achievement gap among diverse learners.

Research proved that learners achieved higher scores when their learning style is accommodated and instructional strategies matched their perceptual strengths [5], [6]. Furthermore, [5] reports this matching of instructional strategies to the student's individual learning styles has "consistently evidenced positive results in empirical studies" (p.84). Moreover, [7], [8] point out when a mismatch exists between learning styles of students in a class and the teaching style of the instructor, learners may become bored, do poorly on tests, experience feelings of frustration, anger, anxiety, and alienation. Since the learning style is a main factor which influences the students' success, teachers and educators should not neglect the identification of the students' learning styles. Hence the present study is intended to identify the percepual learning style preferences of Libyan EFL university learners.

II. LEARNING STYLES

Learning style is defined as the different ways that individuals tackle information and learn. If the learners know their own style, they can realize that others may approch the same situation in a different way [9]. [10] emphasized that "learning styles are not dichotomous (black or white, present or absent). Learning styles generally operate on a continuum or on multiple, intersecting continua" (p.3). Furthermore, [11] provides the most comprehensive definition of learning style as he stated that "learning styles are characteristic cognitive, affective, and physiological behaviours that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment" (p.4). [11] categorizes learning styles into three; cognitive styles are preferred ways that learners perceive and retain knowledge which are related to intellectual abilities, and which are innate capacity, affective styles refer to some aspects of personality which deal with attention and emotion, and physiological styles which are biological-based modes of response such as gender differences and age. According to [12], learning styles relate to thinking, problem solving abilities and the ability to organize information. It is defined as "a term that describes the variations among learners in using one or more senses to understand, organize, and retain experience" (p. 89).

In [13] research, learning styles were defined as "individual's natural, habitual and preferred way(s) of absorbing, processing, and retaining new information and skills" (p. viii). She added that " learning styles are the ways of learning that include how learners perceive, interact with and respond to the learning environment while they are dealing with their teachers and their science subject. It is the preference of an individual to perceive and process information through one or more of the sensory modalities: visual, auditory, kinesthetic, and tactile" (p. 17). Furthermore, [13] has developed learning style model based on how students learn best using their perceptions: visual, auditory, kinesthetic and tactile preferences and also two social aspects of learning: group and individual preferences. [12] defines each of the categories of the perceptual learning style preference questionaire (PLSPQ) as follows: 1- Visual learners prefer images and graphics, 2- Auditory learners prefer listening, 3- Kinesthetic learners prefer active participation/ experiences, 4- Tactile learners prefer hands-on work, 5- Group learners prefer studying or working with others and 6- Individual learners prefer studying or working alone. However, the social dimensions of learning styles are not discussed here as it is not related to the purpose of this study.

[13] claimed that in the field of foreign language learning three major categories of learning styles are widely recognized: sensory or perceptual learning styles, cognitive learning styles and affective/ temperament learning styles. Sensory or perceptual learning style is related to the physical environment in which we learn, and it entails the use of our senses in order to perceive data. This is echoed by [10], who suggested that " Sensory preferences can be broken down into four main areas: visual, auditory and kinesthetic (movement-oriented), and tactile (touch-oriented). Sensory preferences refer to the physical, perceptual learning channels with which the student is the most comfortable" (p. 3). In the present paper the researcher has adopted Reid's Perceptual Learning Style Preference model to identify Libyan EFL university learners' perceptual learning style preference.

III. PREVIOUS STUDIES

A number of researchers have examined the learning style preferences of ESL/ EFL learners. [12] conducted one of the first works on the learning styles in ESL. She made a study on 1234 ESL students in the United States by administrating the Perceptual Learning Style Preferences Questionnaire. In the finding she reports that 90 Chinese university students studying in the USA favoured kinesthetic and tactile styles, and disfavoured group styles. In relation to that, [14] did a study by using PLSP on 331 Chinese university students, and he found that they favoured kinesthetic, tactile and individual styles, and disfavoured group styles.

In a study by [15] on sixteen first year Bachelor of Arts in English Language Studies (BAELS) students from Universiti Kebangsaan Malaysia who received less satisfactory results in the English Placement Test in order to find out whether low proficient students could "stretch" or adapt to other learning styles. She used a perceptual learning style preferences (PLSP) questionnaire to determine the preferred learning styles of the students, journal writing, projection techniques, and a semi- structured interview. The findings indicate that the majority of the students had multiple learning styles with at least kinesthetic or tactile as their major learning style preference which is parallel to the results of Reid's study in the United States. Findings also show that the students had difficulties expanding their normal cultural learning styles, namely tactile and kinesthetic, to cope and adapt to visual and auditory styles.

Another study conducted in Malaysia by [16] which aimed to investigate perceptual learning style preferences (PLSP) of English as second language (ESL) students. Their study attempted to determine the learning styles of the students, and to analyse the differences in learning styles of the students according to gender and ethnicity. The findings of this study showed that learners favoured kinesthetic learning style. Their minor learning styles were visual, auditory and group learning, while students expressed negative preferences towards individual and tactile learning styles.

More recently, [17] conducted a study on 179 Yemeni university students studying science in order to investigate their preferred learning styles with the aim to improve the learning of science. Results revealed that the tactile and kinesthetic styles were the most prevalent styles among the students, followed by the auditory style.

Using the PLSPQ, [18] investigated the Iranian graduate learners' perceptual learning style preferences and its relationship with their gender, age, discipline, and self-rated proficiency level. The results indicated that the participants favored kinesthetic and tactile and disfavored group learning style.

[19] used Reid's Perceptual Learning Style Preference Questionnaire to identify the learning style preferences of 582 higher secondary school students in India. Findings of the study showed that the predominant learning styles of the students were visual and auditory learning style.

Among other researches on learning style, [5], [20] who have reported that when students' learning styles are matched to appropriate teaching approaches and educational conditions, significant increases in achievement, positive attitude toward school, and high motivation for learning have occurred.

Another study, in Arabic context and classroom environment, was carried out by [21], where the study aimed to investigate cognitive learning style-based reading program on the achievement of 104 Jordanian freshmen English majors. The subjects were divided into two groups according to their learning styles, analytic or global learning styles as identified based on Felder and Soloman (2006). The instructional programs contained 12 reading passages and the reading test was administrated at the beginning and at the end of the program. The two-way ANOVA test was revealed that there were no significant differences in the students' reading achievement test between the two groups due to instructional strategy or the learning style, and the only factor that affected the students' reading achievement was the interaction between the instructional strategy and the cognitive learning style.

This paper aims to identify learners' perceptual learning style preferences that will lead to useful implications for improving students' language learning. Thus, this study addressed the following question:

- What are the perceptual learning style preferences employed by EFL Libyan university learners?

## IV. METHODOLOGY

1. *Participants:*

The sample of this study was 40 female Libyan EFL learners joining first year at the Department of English, Alasmaria University, Zliten. They aged 18-19 years old.

2. *Data Collection and Analysis:*

Two instruments were used in this study: a questionnaire which is quantitative and interview which is qualitative. Firstly, the Perceptual Learning Style Preference Questionnaire (PLSPQ) which was adopted from [13]. It comprised 30 statements covering Reid's six learning style preferences which are four perceptual learning styles: visual, auditory, tactile and kinesthetic preferences and two social aspects of learning: group and individual preferences. Since this questionnaire demonstrated high reliability [22] where the Cronbach alpha was found to be 0.72 and was validated for non-native speakers of English, the researcher felt the reliability of using this questionnaire for the current study. The quantitative data was analyzed using the SPSS program to achieve the descriptive statistics. Secondly, semi structure interviews aim to obtain a deeper understanding of the students' views on learning styles. In this study interviews were conducted with 10 participant individually face-to-face interviews were audio-taped. The qualitative data was transcribed and categorized into themes.

V. RESULT AND DISCUSSION

This section seeks to find out the perceptual learning style preferences of the 40 female Libyan EFL learners at Alasmaria University, Zliten where the data was collected from the results of the Perceptual Learning Style Questionnaire by [13] and the interviews which were analyzed quantitatively and qualitatively. Figure1 shows the overall findings of the data from the PLSP questionnaires of the 40 female Libyan EFL learners.
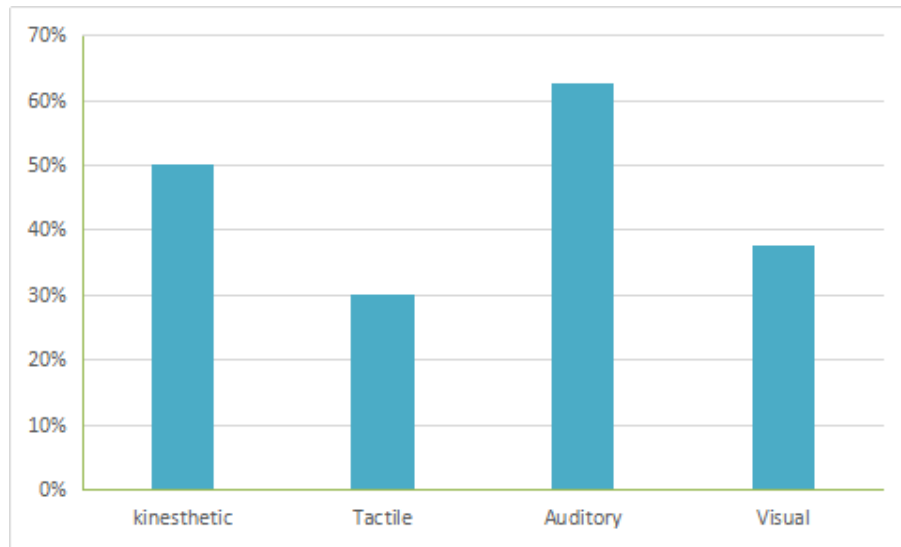
Fig. 1. Libyan students' major preference of learning style

Figure 1 indicates that the results of the PLSP show that the majority of the Libyan students had multiple learning styles with at least auditory (62.5%) and kinesthetic (50%) as their major learning style preferences, followed by visual style (37.5%).Whereas, tactile styles were only (30%). According to Oxford (2003a) percepual learning styles are not "dichotomous". She stressed that learning styles generally function on a continuum or on multiple "intersecting continua". Therefore, a person might use one or a combination of these styles more than some of the other categories.

In order to answer the research question "What are the perceptual learning style preferences employed by EFL Libyan university learners?" deeply, the results of PLSPQ are shown in Tables 1, 2, 3, 4, and 5 in detail. Calculations were carried out to obtain the percentage, the mean (μ) and standard Deviation (σ) for each category of perceptual learning style preferences.

TABLE I: Perceptual Learning Style Preference of Students (N=40)

Learning Style	No. Students	Percentage
Auditory	25	62.5%
Kinesthetic	20	50%
Visual	15	37.5%
Tactile	12	30%

Table I shows the result of students' preference of perceptual learning styles. Based on the percentage analysis score for each learning style, 25 students in this study favored Auditory learning style (62.5%) which is the predominant style of EFL Libyan students followed by 20 students preferred Kinesthetic learning style (50%). Next to Kinesthetic learning style 15 students preferred Visual learning style (37.5%). Students' least preferred learning style was Tactile learning style (30%) where 12 students preferred this style. In accordance with the present results, previous studies by [16], [17] have demonstrated that ESL/EFL students have favoured kinesthetic followed by auditory learning styles.

TABLE II: Auditory learning style (N=40)

N0.	Item	Mean	Std. Deviation
	Auditory learning style preferences	**4.22**	**0.60**
1	When the teacher tells me the instructions, I understand better.	4.38	0.63
7	When someone tells me how to do something in class, I learn it better.	4.30	0.88
9	I remember things I have heard in class better than things I have read.	4.18	0.98
17	I learn better in class when the teacher gives a lecture.	4.28	0.82
20	I learn better in class when I listen to someone.	3.95	1.20

Table II shows that the auditory learning style with five items (1, 7, 9, 17, 20) has overall mean score of M=4.22 with a standard deviation of 0.60 which is the highest mean value among the four perceptual learning style categories. This learning style is also ranked first (62.5%) in the overall list of the Libyan students' preferred learning styles as shown in Fig. 1. This means that students liked to listen to their teacher and classmates speak. The extracts from the interview data provided clear understanding of the Libyan learners' preference for auditory learning. One of the students said that "I would better understand when I concentrate on what the teacher says in class"; another student mentioned that "When I focus on the teacher oral explanation I would understand better". Also, another student emphasized that "it is preferable to listen to the teacher, and not just read from the book".

The interpretation of the Libyan students tend to preferred auditory way of studying, may be because they are more dependent on the teacher and their need to hear explanations from him was rely on the education system in Libya as the teacher was considered as the dominant of the learning process in the classroom. This type of learning is frequent and reflects the teacher-centered approach to learning that favours auditory style. This finding was in line with the study of [19] as they confirmed that the secondary predominant learning style of the students in their study was auditory learning style.

TABLE III: Kinesthetic learning style (N=40)

N0.	Item	Mean	Std. Deviation
	Kinesthetic learning style preferences	**4.01**	**0.62**
2	I prefer to learn by doing something in class.	4.05	0.99
8	When I do things in class, I learn better.	4.00	1.04
15	I enjoy learning in class by doing experiments.	3.95	1.11
19	I understand things better in class when I participate in role-playing.	3.80	0.97
26	I learn best in class when I can participate in related activities.	4.23	0.80

As presented in Table III, the overall mean of Kinesthetic learning style M=4.01 with a standard deviation of 0.62. The mean for the items of the kinesthetic category are as follows: no. 2 (4.05), no. 8 (4.00), no.15 (3.95), no. 19 (3.80) and no. 26 (4.23) respectively. Figure 1 shows that the kinesthetic learning style is ranked second (50%) in the overall list of the Libyan students' preferred perceptual learning styles categories. This indicates that the majority of students liked activities related to movement, role-plays, and guessing games. During the interview participants explained why they preferred the kinesthetic learning style: one of them explained "I prefer the kinesthetic learning because I feel that active participation would reinforce the learning of new information".

Libyan learners are more kinesthetic in nature as they prefer to learn with hands-on experience and that is because of the requirement of the school syllabus where in the primary school and secondary school the demands of action-oriented activities and hands-on experiments especially in science which enhanced this style. Based on the previous studies these results seemed to be relatively relevant to other studies conducted on ESL/EFL students for example the study made by [12], [14], [15], [16], [17], [18].

TABLE IV: Visual learning style (N=40)

N0.	Item	Mean	Std. Deviation
	Visual learning style preferences	**3.73**	**0.53**
6	I learn better by reading what the teacher writes on the board.	3.83	0.90
10	When I read instructions, I remember them better.	3.88	0.97
12	I understand better when I read instructions.	3.85	1.08
24	I learn better by reading than by listening to someone.	3.53	1.11
29	I learn more by reading textbooks than by listening to lectures.	3.55	0.90

Table IV shows that the visual learning style with five items (6, 10, 12, 24, 29) has overall mean score of 3.73 with a standard deviation of 0.53. As indicated in Fig. 1, visual learning style is ranked third (37.5%) in the overall list of students' preferred perceptual learning style categories. This explained that students want to see everything the teacher says written on the board. The extracts from the students' interview data clarify why they preferred this learning style: One of the students states that "When the teacher writes on the board, we remember better", and another one says "I prefer to learn when seeing pictures or drawing in books". This result was supported by many researchers [16], [17] as they confirmed that visual as a minor learning style among the participants in their studies.

TABLE V: Tactile learning style (N=40)

N0.	Item	Mean	Std. Deviation
	Tactile learning style preferences	**3.54**	**0.70**
11	I learn more when I can make a model of something.	3.63	1.03
14	I learn more when I make something for a class project.	3.53	1.20
16	I learn better when I make drawings as I study.	3.50	1.09
22	When I build something, I remember what I have learned better.	3.58	1.01
25	I enjoy making something for a class project.	3.45	1.13

The results for tactile learning style are presented in Table V where its overall mean is 3.54 with a standard deviation of 0.70. The mean for the items of the tactile category are as follows: no. 11 (3.63), no. 14 (3.53), no.16 (3.50), no. 22 (3.58) and no. 25 (3.45) respectively. This learning style is ranked fourth (30%) in the overall list of Libyan learners' preferred learning style categories (Fig. 1). This result was in line with the study of [16] which highlighted that students in their study expressed low preferences towards tactile learning styles. The extracts from the students' interview provided an expanded understanding of their preference for the tactile learning style: one student explained that she likes to study by highlighting the main points in her book and taking notes while another said that she learns more when she makes something for a class project. This means that they learnt best by constructing things, and taking notes, doing projects.

Moreover, the analysis and the explanations of the findings revealed that perceptual learning style preferences change according to their situation and the context. At the same time, learning sensory preferences are also related to the required task. According to [23], " The media tools are effective for different learners because they are tools that can be wielded to complement different learning styles. Verbal learners like the sound files. Visual learners like the digital movies and graphics" (p. 35). Therefore, it is imperative to note that every individual does not have just one preferred learning style. One's style changes according to the learning environment and the purpose of learning. This research supports the view of [12] which demonstrated that adult learning sensory modalities can be modified.

Considering different learning preferences of the students is a crucial factor in providing different tools to accommodate different learners. This idea is emphasized by [24] who believes that although it is difficult to cater to all preferences, being aware of the learners preferences and providing some flexibility will possibly accommodate most of the learners. It is also recommended by some scholars that the instructional designers help students stretch and extend beyond their comfort zone of their preferred learning styles. This is called style flex which can be achieved by providing learners with a variety of tasks requiring a learning style different from the students favoured styles [25], [26].

VI. CONCLUSION

The main objective of this study was to investigate the Libyan EFL learners' preferred learning styles at Alasmaria University, Zliten, Libya. The results revealed that the students favoured the auditory and kinesthetic learning styles, followed by visual and tactile styles. The results also suggested that it is important to determine students' learning styles as major factor influence students' achievement and success. Since students have their own learning style, teachers should be aware of their students' diversity.

These findings have important implication for teaching pedagogies, emphasizing the importance of accommodating learners' different learning style preferences in EFL classes. In addition, Curriculum designers should implement the use of various learning styles in their instructional curriculum for students to become more empowered in their learning. This study is hoped to improve the standard of the teaching and learning of English as a foreign language. Therefore, the teachers have to go beyond the traditional form of teaching and move toward integrating instruction that serve different kinds of learning style preferences in their classes and make the educational setting more facilitative and motivating. Thus, this study support the idea by [12], who proposed that the task and the situation makes learners adapt themselves to new environment. Future research should be conducted, as the area is very broad and the research can be taken from different perspectives, with a larger sample and consider both males and females in order to achieve more generalization of the findings.

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