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## **A Study on Preferred Learning Styles of Turkish EFL Teacher Trainees**

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*Abstract: Since people have different ways of perception, levels of motivation, and attitudes towards teaching and learning they consistently differ from each other in their preferences of learning and acquiring knowledge. Therefore, the more instructors understand the differences, the better chance they have of understanding and meeting the diverse learning needs of their students. The present study has been conducted to investigate the Turkish ELT students' learning style preferences in relation to gender and age to see if there is any relationship between achievement and learning style preferences. To perform the aim of the study Wintergerst and DeCapua's (1999) learning style indicator (LSI) was administered on 249 English trainees. To find the male and female students' learning style preference differences separately, t-test was utilized. The result indicated that Turkish students are mostly group-oriented learners and learn best through interacting with other students while learning. Gender also varies according to the three orientation areas under investigation. In the current study, no relation between achievement and learning style has been identified.*

### **Introduction**

The topic of learning styles continues to be of interest. Since its inception in the 1970s, the plethora of studies have been conducted on learning styles producing hundreds of pages documentation in the form of articles, book chapters, and books. While the topic is researched immensely, new dimensions unfold. For instance, Nel (2008, cited in Griffiths, 2012) states that learners might employ more than one learning style. Parallel to this idea, Zhou (2011) points out that as students might employ an assortment of learning styles, teachers should be prepared to deal with this situation by changing their own teaching styles in order to ensure a good match. Kawai (2010, cited in Griffiths, 2012), on the other hand, pointing out that teachers, too might have preferred teaching styles, recommends teachers to expand their styles accordingly in order to avoid a mismatch between their preferred teaching styles and students' learning styles which is likely to occur.

The act of learning never occurs in any two learners in exactly the same way. To this end, the learning styles theory suggests that the learners perceive and understand information in different ways. Fielder and Hendriques (1995) state that "students learn in many ways; by

seeing and hearing; reflecting and acting; reasoning logically and intuitively, memorizing and visualizing” (p.21).

Learning styles are generally perceived as innate and stable preferences of individuals, (Ehrman & Oxford, 1988). For instance, Keefe (1979) defines learning styles as characteristic ways of processing information, feeling, and behaving in learning situations. Wintergerst and DeCapua (2001), similarly, define learning styles as inherent preferences of individuals in learning.

The underlying rationale of all the above-mentioned definitions is that individuals show differences in terms of their preferences regarding the acquisition of knowledge (Diaz & Cartnal, 1999; Schell & Rojewski, 1995). It is believed that not all of the elements of learning styles are owned biologically. For example, information processing, and perceptual strengths such as being auditory visual, and auditory etc. are stable whereas motivation, desire for learning, responsibility of learning and social preferences, which are accepted as elements of learning styles, can change as a result of the maturation process of an individual and strong personal efforts, (Dunn, 1998; Griggs, 1991; Milgram, 2000, cited in Tatarinceva, 2014). Further, it is believed that males and females learn differently and have different learning style preferences in acquiring information; in fact they differ even in their choices of particular subjects (Griss 1991; Milgram, 2000; Severiens & Dam, 1997). Studies found a relationship between gender and learning styles: that gender can influence one’s learning styles, (Cavanaugh, 2002; Ebel, 1999; Grebb, 1999, cited in Tatarinceva, 2014; Milgram & Price, 2003; Pizzo, 2000).

Gender and its relationship with achievement and learning styles have a long history and it has been the subject of many studies so far (Abidin et al., 2011; Cavanaugh, 2002; Gencel, 2006; Griss 1991; Milgram, 2000; Severiens & Dam, 1997; Tatarinceva, 2014). This is to provide equal educational opportunities for individuals. Although research studies do not give a clear and consistent picture of gender differences and learning style relationship, there are some studies that found differences between the learning styles preferences of male and female learners. For example, in Kolb’s study, when compared to women, men showed a strong preference for the conceptualization mode of learning. The results show that the fear of failure (Entwistle, 1981) and intrinsic/extrinsic motivation (Severiens & Dam, 1997) differ in women and men. From this aspect, in order to provide an opportunity for equal education, and consider individual differences in education along with many components of education, we also need to understand the notion of how males and females differ in their learning, and what can be promoted to improve their learning. Therefore, there is a need for further research to understand the differences between the sexes in terms of their learning style preferences, as well as how these differences affect learning and especially achievement. The present study takes gender as a biological entity that identifies males and females.

In teaching contexts, the major premise that the learning style theory suggests is that if teachers are aware of their learners’ preferences, they will be informed about the learners’ needs; and this, in turn, will result in more effective teaching.

According to Ellis (1989), once teachers become aware of their learners’ learning styles, they may help them more efficiently by increasing their amount of learning as a result of identifying their strengths and weaknesses. To Reid (1995), matching learning styles with teaching styles gives all learners an equal opportunity in the classroom and this, in turn, may provide learners with a feeling that their opinions are taken into account. As Ellis further states, if students’ learning styles are in harmony with teachers’ teaching styles, the observed result will possibly be a higher rate of success in learning. Besides, an increase in learners’ level of awareness regarding their learning styles will contribute positively to their knowledge of how to learn (Smith and associates, 1990).

Simply put, learners step into the classroom not alone but with a heavy load of unique predispositions and preferences about learning. Therefore, in order to provide an effective and student-friendly instruction, teachers should avoid one-size-fits-all approaches to language teaching, and instead try to identify and develop their students' awareness about learning styles and their significance in terms of language learning.

Although a great amount of research has been conducted on learning styles, Wintergerst et al. (2003) argue that not as much research has been documented on non-native speakers and second language learners. In this respect, the present article, responding to the call made by Wintergerst et al., reports a study conducted on the preferred learning styles of Turkish EFL teacher trainees. An important aim of the study is to identify the participants' preferred learning styles and explore the possible relationships between their preferred learning styles and such variables as gender, grade and achievement level.

### **Review of the instruments used for determining learning styles**

To date, a number of learning style instruments have been developed to determine the learning styles of English native speakers. Of the most cited ones is 'The Learning Style Inventory' developed by Dunn et al. (1984). The mentioned inventory was conducted on a group of 3-12 graders to analyse their instructional and environmental preferences. The inventory included a total of 23 items varying from physical preferences like light, seating plan, and sound to social preferences such as learning in pairs, small groups versus learning individually.

Other well-known instruments designed for native speakers of English are Gregorc's 'Mind Styles Model' (Gregorc, 1985) and Kolb's (1976; 1985) 'Learning Styles Inventory', which is based on experiential learning theory, and categorizes learners as divergers, assimilators, convergers and accommodators.

With regard to the instruments developed for non-native speakers of English, the most commonly used ones are Reid's (1987) 'Perceptual Learning Style Preference Questionnaire' (henceforth PLSPQ) and O'Brien's (1990) 'Learning Channel Preference Checklist', which consists of 36 statements arranged on a five-point Likert scale, and which focuses on three learning preferences: visual, auditory and haptic. Another instrument designed mainly for non-native English learners is Oxford's (1993) 'Style Analysis Survey'. The instrument contains a total of 110 statements arranged on a four-point scale with an aim of finding out the participants' general approach towards learning in terms of five different activities.

Reid (1987) carried out her study on 1338 students with different language backgrounds. She noticed that native and non-native speakers of English differed in terms of their learning style preferences. Her findings also revealed a significant relationship between learning style preferences and the variables of age and gender. Besides, the major preferred learning style of the ESL learners under investigation was the kinesthetic learning style.

Reid (1987) is one of the most cited names in studies on ESL learners' learning style preferences. Reid's PLSPQ is the earliest and most widely used instrument that was specifically developed for ESL students. This scale grouped learning styles into 6 categories as visual, auditory, tactile, kinesthetic, individual and group learning preferences. Each of these categories consists of 5 items that are specifically worded to assess the learning style preferences of ESL students.

In addition to the studies that aimed to identify language learners' learning styles, a number of studies also examined the possible relationship between the participants' identified learning preferences and the variables of gender and achievement. The findings of these studies revealed that males and females differed in terms of their learning style preferences

(Absent & Williams, 1997 cited in Gencel, 2006). In Barmeyer's (2004) study, for instance, significant differences were found between the participants' gender and their preferred learning styles. In her own study, however, Gencel (2006) did not find any significant relationship between the aforementioned two variables in a group of Turkish primary school students.

There are also studies, which have revealed gender differences in terms of verbal ability, social relationship, use of language, and learning styles (i.e., Ehrman & Oxford, 1988; Jackson, 1995; Voelck, 2003). To illustrate, Brown (1994) suggests, "in Western cultures males tend to be more field-independent" (p. 106).

The varying and sometimes conflicting results from previous studies on learning style preferences suggest that there are both room and need for further research to clarify the relationship between language learners' gender and their preferred learning styles as well as other possible variables mentioned earlier, such as the relationship between gender and achievement.

The relationship between learning styles and achievement has also been investigated in the literature. The findings of various studies that take students' learning styles into account have revealed a positive relationship between achievement and learning styles (i.e., Reid, 1987; Gencel, 2006; Tatarinceva, 2014). In an earlier study, Dunn (1984) revealed a significant relationship between learners' learning styles and their academic achievement. Similarly, Brown (1994) reports a positive correlation between achievement and learning styles. Based on his findings, Brown proposes that, "when learning styles are matched with appropriate approaches in teaching, students' motivation, performance, and achievement will increase" (p.47). The results of these two studies support Reid's (1987) claim that learners who employ multiple learning styles learn better.

### **Studies on learning styles of Turkish language learners**

Despite the fact that learning styles have been a popular area of investigation all around the world, relatively few studies have been carried out in Turkey to date (i.e., Akgün, 2002; Arslan, 2003; Baykan & Naçar, 2007; Gencel, 2006; Demirkan & Demirbaş, 2007; Kara, 2009; Mutlu, 2005; Yildirim et al, 2008). A selected review of the studies conducted in the Turkish context is presented in this section of the paper. However, one should note that the majority of these studies did not specifically investigate the learning styles employed by Turkish EFL teacher trainees; they rather focused on the learning styles of language learners in general.

Arslan (2003) investigated the learning style preferences of students majoring in engineering departments. His study was conducted on 400 randomly selected students from engineering domains. The engineering students were found to be active and sensing learners rather than intuitive ones. Furthermore, the results of the study revealed that all of the participating students were visual learners.

Mutlu's (2005) study, on the other hand, included teachers working in 12 different primary schools in Ankara. One important finding of the study was that the majority of the participating teachers had analytical styles; however, they were not following their style preferences in their teaching practices.

Demirkan and Demirbaş (2007), and Gencel (2006), utilized Kolb's Learning Styles Inventory. Gencel's study sample consisted of social science teacher trainees. The findings revealed that the majority of the participants used assimilation, accommodation, diverging and converging modalities respectively while learning. Demirkan & Demirbaş (2007) investigated the possible relationship between gender and the learning styles adopted by a

group of undergraduates majoring in design education. However, the results indicated no significant relationship between the two variables.

In a relatively recent study, Kalaca and Gülpınar (2011) investigated medical students' learning styles. According to their findings, medical students hold an intermediate position on a teacher-regulated to student-regulated learning continuum. Based on this result, the researchers suggest that a gradual transition should be planned towards a more student-centred design of the curriculum in medical schools of Turkey.

An important study about the learning styles of language teachers and learners in the Turkish EFL context comes from Akgün (2002), who reports on the learning styles of 47 language teachers and 350 randomly selected English language learners attending a private language school. According to the results, the most preferred learning styles employed by the participating learners and teachers alike, were the concrete, communicative, authority-oriented, and analytical learning styles. Another similar study was conducted by Kara (2009), who aimed at identifying the learning styles employed by a group of second year ELT trainees ( $N=100$ ) attending a state university in Turkey. The findings of this study revealed the dominance of visual and auditory learning styles among the participants.

A quick review of the studies reported up to this point shows that the majority of them focused on Turkish students majoring in the fields other than English language teaching (ELT), and that none of them utilized Wintergerst's and DeCapua's (2003) LSI which has been specifically designed for EFL learners. In fact, their LCI has never been tested to identify Turkish EFL learners'/teachers' learning style preference. To the best of our knowledge, there are only two learning styles studies as regards English language learners and teacher trainees of English, and they are given in the previous section briefly.

### **Wintergerst and DeCapua's Learning Style Indicator (LSI)**

In the current study, the Learning Style Indicator (LSI) developed by Wintergerst and DeCapua (1999) was utilized to determine a group of Turkish EFL teacher trainees' learning style preferences. Wintergerst (2011) reported (through e-mail communication) that the instrument was developed from the items included in Reid's (1984) PLSPQ, which was originally designed for non-native speakers of English. In a series of studies, Wintergerst et al. (1999) examined the reliability and validity of Reid's PLSPQ on non-native participants (for a detailed description of all the studies, see Wintergerst et al., 2003). After utilizing exploratory factor analysis to examine the construct validity of the PLSPQ, Wintergerst et al. (2001) reported discrepancies regarding the grouping of the items. Based on the results of a series of statistical analyses on a replication study (Wintergerst et al., 2003), they proposed LSI as an alternative learning style model with three new learning scales. Unlike the 30 items grouped into six different categories as in Reid's PLSPQ, they used a total of 23 items grouped under three modalities as Project Orientation (PO), Individual Activity Orientation (IAO) and Group Activity Orientation (GAO). The scale of PO consists of a total of 11 items that refer to a student's preferences of learning during interaction with other students, or individual hands-on experience (Wintergerst & Verna, 2003). IAO, which includes 7 items, refers to a student's preferences during individual work. Finally, GAO includes the remaining 5 items, and refers to a student's preferences while learning in a group. According to Wintergerst et al (2001), when compared to the PLSPQ, the LSI provides a more realistic learning style model.

The fact that the LSI was developed and tested in a number of studies by Wintergerst et al. (1999; 2000; 2001) indicates that it can be used as a reliable instrument to investigate the learning style preferences of non-native speakers of English.

As mentioned earlier, there is a limited body of research on Turkish ELT students regarding their learning style preferences and the relationship between them and such variables as gender, grade and achievement level. The present study, therefore, aims to fill in this gap by responding to the call made by Wintergerst et al. (2003) that much research is needed from different EFL contexts to further contribute to the relatively limited existing pool of data regarding their scale.

## **Methodology**

### **Research Questions**

The present study was guided by the following questions:

1. What are the learning styles preferred by Turkish EFL teacher trainees?
2. Is there a relationship between the identified learning styles and gender?
3. Do students' learning preferences differ according to grade level?
4. Is there a relationship between the identified learning styles and learners' achievement in reading, writing and speaking skills?

### **Participants**

249 EFL teacher trainees enrolled at the English Language Teaching (ELT) department of a Turkish state university participated in the study. The participants were chosen by the method of opportunity sampling from first, second and third year students. Of the 249 subjects, 171 were female and 78 were male. The total period of the ELT program is four years within the School of Education in Turkey but since 4<sup>th</sup> year students often take private courses to be able to pass the nationwide teacher placement exam and were stressed out during the application, they refused to be involved in the study, therefore, the 4<sup>th</sup> year students were excluded from the study.

### **Instrument**

After obtaining the required permissions, the LSI developed by Wintergerst & DeCapua (1999) was utilized to collect data. The reliability ranges for the three scales of LSI were as follows:  $r=0.65$  to  $0.77$  for the PO Scale;  $r= 0.75$  to  $0.81$  for the GAO Scale; and  $r=0.69$  to  $0.80$  for the IAO Scale. As all of the participants were ELT majors who had been placed in the department according to their scores from the nationwide English language proficiency exam, the authors saw no need to translate the instrument into Turkish, and thus the original version was used. The rating of the scales was coded for each statement as always=1, very often=2, sometimes=3, and never=4 as specified by Wintergerst et al. (2003, p.95). Thus, the participants were administered a four-point instrument which also included the demographic variables of gender, grade level, as well as the achievement grades for the courses of reading, writing and speaking. These grades were all provided in in the letter format as A, B, C, D, and F. A was the highest grade in the mentioned three skills whereas F was the poorest one. *Each letter grade has got a number equivalent as A: 100-89, B: 88-69, C: 68-55, D: 54-45, F: 43-39.*

Ethical requirements for the study were met by getting an informative consent paper from the students.

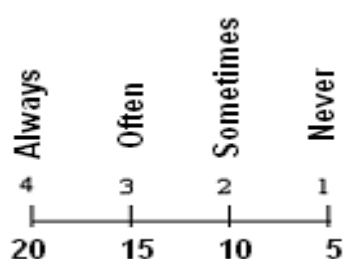
**Data analysis**

The data were analysed on SPSS Version 17 for Windows. T-test and ANOVA were administered on the collected data.

**Findings**

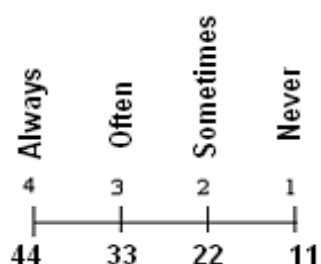
**Learning style preferences**

The current study was guided by four research questions. The first question aimed to determine the learning preferences of the participants through LSI (Wintergerst et al., 1999).



**Figure 1** The highest and lowest values possible from the items regarding group activity orientation (GAO)

Figure 1 above shows the highest and lowest values that could be received from the five items included in GAO scale of the LSI. As can be understood from this figure, the lowest possible value was 5 and the highest was 20. Table 1 below shows the highest points that the participants received from the three orientations. When the points from the items were examined, it was found that the students mostly received points above average and were close to ‘often’ (13.15), (see Table 1 below). As shown in the following figure, the score 13.15 is close to 15 (often). Based on this finding, it can be concluded that Turkish EFL learners are mostly group-oriented. This finding is in parallel with that of Wintergerst’s study, which indicates that Asian language learners are mostly group-oriented.



**Figure 2** The highest and lowest values possible from the items regarding project-orientation (PO)

Figure 2 above includes the highest and lowest points that could be received from the 11 items referring to PO. A reading of the inventory shows that the lowest value that could be received from the items included in the project orientation scale was 11 and the highest was 44. The mean score from this section is 23.7, and it is close to ‘sometimes’. (See Table 1 below.) Therefore, it can be concluded that the Turkish EFL teacher trainees under investigation ‘sometimes’ prefer project-oriented learning.



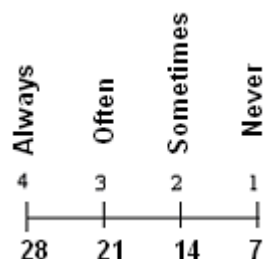


Figure 3 The highest and lowest points possible from the items referring to individual activity orientation scale (IAO)

Figure 3 above refers to the seven items in IAO scale. The highest and lowest possible values in this category were 28 and 7 respectively. Based on the mean score of 15.5, it would not be wrong to claim that Turkish EFL teacher trainees ‘sometimes’ prefer learning individually.

*General learning style preferences and their relation to gender, grade and achievement level*

In addition to the identification of learning styles adopted by Turkish EFL teacher trainees, the present study also examined the relationship between learning styles and such variables as gender, grade and achievement level in three language skills, namely reading, writing, and speaking.

Orientation Areas	N	X	Sd
Group Activity Orientation	249	13.15	2.94
Project Orientation	249	23.7	4.34
Individual Activity Orientation	249	15.5	4.23

Table 1 Mean scores received from the three areas (group, project, individual)

The identified learning styles of the participants were also analysed in comparison with the variable of gender through an independent samples t-test, the results of which are displayed in Table 2 below.

	N	X	Sd	t	P
<i>Gender/Group Orientation</i>					
FEMALE	171	13.54	3.00	3.33	.001*
MALE	78	12.19	2.82		
<i>Gender/Project Orientation</i>					
FEMALE	171	23.59	4.502	-.419	.675
MALE	78	23.84	4.187		
<i>Gender/ Individual Orientation</i>					
Female	171	15.13	4.40	-.796	.074
Male	78	16.19	4.06		

\* p < 0.01 significant

Table 2 Comparison of learning styles (group, project, individual) and gender

The means showed no significant difference between male and female participants in terms project, individual and group-oriented preferences but the mean scores did show that females are more group-oriented.

CLASSES	N	$X_{group}$	$Sd_{group}$	$X_{project}$	$Sd_{project}$	$X_{individual}$	$Sd_{individual}$
Sophomore	85	13.02	3.17	23.75	3.95	15.04	3.61
Junior	86	13.18	2.82	23.62	4.83	15.12	3.71
Senior	78	13.16	3.03	23.69	4.40	16.25	5.42
Total	249	13.12	3.00	23.69	4.39	15.45	4.31

**Table 3 Comparison of learning styles (group, project, and individual) and grade (class) level**

When the values were compared across grade levels through ANOVA, minor differences appeared between the means. The results revealed that there was no significant difference between grade level and group-orientation ( $F = .073, p = .92$ ); grade level and project orientation ( $F = .21, p = .98$ ), and grade level and Individual orientation ( $F = 1.989, p = .139$ ) at  $p > .05$  level.

A comparison of the reading achievement score with the preferred learning style revealed that the teacher trainees who scored ‘C’s or ‘D’s had higher means in PO and IO categories. In other words, the students who had received ‘C’s or ‘D’s in their reading course attained the highest mean in the PO section. On the other hand, the standard deviation and arithmetic means of students who had scored A from the reading course were lower than the students who had gotten ‘C’s or ‘D’s. These students obtained the lowest grade from the IO section. In order to find out the degree of significance between the means, ANOVA was performed. The results of the analysis did not reveal any significant variance, however, between the reading score and GO ( $F = 1.467, p = .224$ ), PO ( $F = 2.095, p = .101$ ), and IO ( $F = 1.475, p = .222$ ) scores.

When it comes to the comparison of the writing achievement score to the preferred learning style, descriptive comparison of the means indicates that the students who had scored ‘A’ from the writing course got the highest score from the PO, and those who had scored ‘D’ got the lowest means when compared to the other grade groups. The degree of significance was analysed by means of ANOVA. The results showed again no significant difference between the participants’ writing grades and their points regarding GO ( $F = .855, p = .465$ ), PO ( $F = .414, p = .743$ ), and IO ( $F = 1.099, p = .350$ ) at  $p > .05$  level.

Grades	N	$X_{group}$	$Sd_{group}$	$X_{project}$	$Sd_{project}$	$X_{individual}$	$Sd_{individual}$
A	71	13.66	2.88	24.23	4.32	14.63	3.62
B	103	12.85	2.98	23.75	4.46	15.34	3.54
C	63	12.84	2.43	23.42	4.56	16.06	5.70
D	12	13.75	5.54	23.31	3.99	15.51	3.15
Total	249	13.12	3.00	23.69	4.39	15.45	4.31

**Table 4 Comparison of learning style preferences and speaking grades**

Finally, a comparison between the speaking achievement and preferred learning style reveals that the majority of the students who had gotten high grades from the IO category were the ones whose speaking grades were as low as ‘C’. A comparison of the speaking grades of different groups revealed that the students who had scored high (A) in the course were more successful in the project-oriented category. However, ANOVA results showed no significant difference between the students’ speaking grades and their points regarding GO ( $F = 1.403, p = .243$ ), PO ( $F = .968, p = .409$ ), and IO ( $F = .135, p = .930$ ) at  $p > .05$  level.

## Discussion

### Learning styles

A main finding of the study is that Turkish teacher trainees of English are mainly group-oriented, that is, they learn best when they interact or work with other students. The means of the points they got from the PO and IO sections are close to the frequency level '*sometimes*' while their points in the GO section is much closer to the frequency level '*often*'.

This study also reveals that females show more inclination towards PO than males do. However, males get better scores from the IO category when compared to females. This finding implies that males mostly prefer to study individually whereas females are mainly inclined to study collectively and in cooperation with others. The same results were found in Dorval (2000)'s study; he thereby concluded that females learn better through collaboration with small groups.

An important finding of Wintergerst et al.'s (2003) study is that Asian students (Japanese, Chinese and Korean) are mostly project and group-oriented. It is worth mentioning here that although the present study did not aim to investigate the impact of culture on learning style and the relationship between them, the results imply that Turkish students are more group and project oriented and this finding makes the present study consistent with that of Wintergerst et al.'s in this respect.

The group-oriented style of the Turkish learners also reflects the common practice of cooperation in the Turkish society and culture as shown in Hofstede's (1980) culture studies, which place Turkey under the category of those countries where collectivism rather than individualism prevails. As Brown (1994) suggests, the degree of cooperation in the participants' cultures might play a role in their preferred learning styles. In other words, learning styles can be shaped by the influence of a particular culture. This view is also supported by some scholar such as Ebel (1999), Cavanaugh (2002), and Grebb, (1999), because to them, culture can have impact on learning style preferences of individuals. Another important finding of the present study is that Turkish EFL teacher trainees are also individually oriented, because they got the second highest score from the IO category. It is possible to interpret this seemingly contradictory finding in the following ways. Firstly, thanks to mass communication media and fast growing networking across countries, people all around the world interact with each other very easily, which results in constant transfers of cultural elements and change even in long-rooted traditions. Given the fact that the participants of the present study are young adults who are mostly exposed to mass media, this finding is meaningful. Secondly, the present study included Turkish college students pursuing a bachelor's degree in English language. It is assumed that these students are exposed to and immersed in English-speaking western cultures throughout their education, which might account for their tendency toward individual orientation. However, we, as the researchers of the current study, are aware that in order to prove this assumption, the same study needs to be replicated on various larger sample groups, that is, any discipline other than English.

### Learning styles and the variables of gender, grade level and academic achievement

In the previous studies conducted on Turkish learners, it was found that learning style preferences of students did not significantly differ by gender (Baykan & Naçar, 2007; Demirkan & Demirbaş, 2007; Gencel, 2006). However, in the present study, male students were found to show an inclination toward IO. In line with this finding, we recommend that teachers give male students enrolled in ELT department tasks requiring individual efforts

such as projects or activities that can be completed individually to address their learning style preferences.

This study revealed no significant relationship between grade level and learning styles. That is, there is no difference between the first, second, third and four year Turkish students in terms of their learning style preferences. This finding might have originated from the close ranges between the ages of the subjects because the majority of Turkish students attend university between the ages 17-22.

Another unveiled dimension to the concept of learning styles is that they may change over time and through various teaching contexts. Pointing out the context-sensitive nature of learning styles, Griffiths (2012) argues that 'learners' styles may vary according to the context in which learning occurs, since what works for a particular individual in one environment or for one particular task may not work for others elsewhere engaged in different activities' (p.153). Since learning process is affected by psychological and biological factors (Pask, 1988) it is believed that the results may change over time due to the fact that some psychological components of learning style such as motivation, learning responsibility, willingness are subject to change over time and depend on maturity of an individual. As individual grows, the non-stable features of learning styles change, (Abidin & et. al., 2011; Tatarinceva, 2014). On the other hand, since, learning styles are personal features, they do not change within a short term. Therefore, it would be unusual to observe any difference from this aspect. However, this study needs to be replicated with students from similar age groups in order to clarify and provide adequate evidence for further discussion.

Investigating the relationship between the academic achievement of students in three language skills (reading, writing, and speaking) and their adopted learning styles was another research goal of the present study. In relation to this, the grades of the participants in reading, writing and speaking courses were used in the study as academic achievement indicators. However, the study revealed no results supporting a significant relationship between achievement scores and learning styles. In this respect, the findings of this study are similar to those of Yildirim et al.'s (2008) that their study investigated the relationship between achievements and preferred learning styles of a group of Turkish learners, but found no significant relationship. On the other hand, there are studies (i.e., Tatarinceva, 20014), which report a significant relationship between achievement and learning style.

## Conclusion

Each learner is unique in terms of processing new information. Put simply, 'every learner does have a learning style' (Nel, 2008 cited in Griffiths, 2012). As the one-size-fits-all tendencies in teaching, regardless of the subject matter, lost its credibility. The underlying rationale of learning styles is that without having any awareness of students' style preferences teachers are not likely to provide an effective instruction. Furthermore, it is obvious that without sufficient knowledge teachers will not be able to provide the students with instructional variety to respond to the diversity among students. Needless to say, awareness regarding the students' learning styles can also help teachers adjust their teaching methods accordingly. Therefore, we, as teachers, should internalize the potential benefits of learning styles. In this vein, language planners beside language teachers should develop an awareness of learners' preferences. In other words, it is imperative to identify learning styles when preparing effective lessons and designing sound language teaching programs.

The present study did not aim to show the superiority or inferiority of any learning style but to unveil any possible relationship between EFL teacher trainees' learning styles and such variables as grade, gender and achievement. Although the current study failed to show a

significant relationship between learning style preference and academic achievement, these two variables need to be studied in large-scale studies with various samples. More specifically, the three learning modalities developed by Wintergerst et al. (1999), namely group, project and individual orientation, need to be applied to larger groups of participants and need to be illustrated with matching classroom activities.

This study has also revealed a learning style model that is consistent with the characteristics of the Turkish culture (i.e., the participants mainly reported a group oriented learning style). Therefore, the present study can be a starting point for a deeper investigation into the relationship between learning styles and culture too.

As Guild and Garger (1985) suggest, effective teaching should take the ways that individuals learn into consideration. It seems that the concept of learning styles will maintain its all-time popularity with further studies which investigate different aspects embedded in the concept. Therefore, data from different cultures and teaching contexts are needed. It is deemed that the results of such empirical and descriptive studies will shed light on how to best prepare education programs and to organize the learning and teaching practices.

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**Appendix :Learning styles indicator, (Wintergerst et al., 1999)**

Circle your answer for each statement based on how you learn or learned English

		<b>ALWAYS</b>	<b>VERY OFTEN</b>	<b>SOME TIMES</b>	<b>NEVER</b>
<b>1</b>	I enjoy working on assignment with two or three classmates.				
<b>2</b>	I learn best in class when I can participate in related activities.				
<b>3</b>	I understand things better in class when I participate in role playing.				
<b>4</b>	I learn more when I can make a model of something				
<b>5</b>	When I study alone I remember things better.				
<b>6</b>	I get more work done when I work with others.				
<b>7</b>	I enjoy learning in class by doing experiments.				
<b>8</b>	When I work alone, I learn better.				
<b>9</b>	I understand better when I read instructions.				
<b>10</b>	When I build something, I remember what I have learned better.				
<b>11</b>	In class, I learn best when I work with others.				
<b>12</b>	I learn more by reading textbook than by listening to lectures.				
<b>13</b>	When I do things in class, I learn better.				
<b>14</b>	I prefer to work by myself				
<b>15</b>	When someone tells me how to do I learn better.				
<b>16</b>	I enjoy making something for a class project.				
<b>17</b>	When I read instructions, I remember them better.				
<b>18</b>	I prefer to study with others.				
<b>19</b>	When the teacher tells me the instructions, I understand better.				
<b>20</b>	I learn more when I can make something for a class project.				
<b>21</b>	I learn more when I study with a				



	group.				
<b>22</b>	I learn better by reading than by listening to someone.				
<b>23</b>	I prefer to learn by doing something in class.				

Statements drawn from Reid (1984).