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The Influence of Biological, Social and Affective Individual Differences on Iranian EFL Learners' Speaking and Writing Proficiency

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Abstract

The current mixed methods design aimed at exploring the influence of biological, social, and affective individual differences on EFL speaking and writing proficiency via virtual instruction. The research sample included sixty male and female Iranian EFL students. Prior to starting treatment, they took the pretests of IELTS speaking and writing proficiency tests. Next, they were instructed online. At the end of the experiment, posttests of IELTS speaking and writing proficiency tests were administered and the foreign language anxiety questionnaire was distributed. The students also participated in semi-structured interviews. Based on the findings, it can be concluded that EFL productive skills achievement was not better in learners who started English learning at younger ages. Also, gender differences did not prove to be a sufficiently robust variable affecting EFL learners' productive skills via virtual instruction. It can also be concluded that foreign language anxiety affected students' EFL productive skills negatively..

Keywords: *Affective individual difference, Biological individual difference, Productive skills, Social individual difference, Virtual instruction.*

Introduction

The fact that some people accomplish high levels of proficiency in a foreign language and other people never seem to advance much further than a beginner's level might be related to a large extent to individual differences amongst the individuals (Andringa & Dąbrowska, 2019; Dornyei, 2005; Ellis, 2004; Griffiths & Soruç, 2020). However, exactly how these factors act together to impact language learning is not yet known. Indeed, individual differences like gender, age, anxiety, motivation, language aptitude, attitude, cognitive style, learning strategies, and personality each play a vital role in language achievement (Zafar & Meenakshi, 2012). The most important individual differences that have been explored in the literature are age, gender, intelligence, aptitude,

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motivation, attitude, learning styles, learning strategies and language learning anxiety. For a detailed analysis, in the current study three of them were chosen and an in-depth review of the research carried out regarding such individual differences follows:

Regarding age factor as a biological variable, there is still a prevalent belief held by numerous researchers asserting that second language acquisition is easier for young children compared to adolescents or adults (Sharabidinovna et al., 2020). Nevertheless, in the field of second or foreign language acquisition, age-related studies do not enjoy uniformity and methodological accuracy and adequate research has not been conducted up to now (Singleton & Pfenninger, 2018).

As a result, the available findings in the literature are inadequate and speculative. Therefore, the question of age variable in second or foreign language acquisition is critical and has immense significance to the progress of the field. Furthermore, outcomes of research carried out in educational environments suggest that the impact of age on second or foreign learning covaries with learning settings (Lichtman, 2016). Yet, few studies have been carried out investigating online language learning in online environment different age-groups. Thus, as one of its aims, the current research hopes to draw attention to age-related aspect of second language acquisition in online settings which is tremendously an under-researched issue.

Furthermore, gender has been considered a vital element that plays a particular role in second language acquisition. This was agreed by (Prabha & Raja, 2021), based on which gender variable is a critical social factor that plays a particular role in second language achievement. The word “gender” rather than “sex” is used in this study since based on the norms and expectations of social gender roles change while sex depends on the biological, anatomic, and physiological features and is not subject to change (Kayaoglu, 2012).

In the same vein, foreign language anxiety factor as another affective variable can also have a vital role in second language learning (Karimi Baghmalek, 2021). It is not easy to define foreign language anxiety. It is associated with feelings of nervousness, frustration and self-doubt. It is a feeling of stress, fear, nervousness and worry triggered by the stimulation of the autonomic nervous system (Horwitz et al., 1986).

Furthermore, the method used by the teachers in their classes plays a vital role in language learning (Ahmadi, 2017). Likewise, online instruction provides learners with fast information, suitable materials and enthusiasm to learn more (Tomlinson, 2011 ; Gençler, 2015) and enjoys enormous potential to modify the present language teaching methods (Pourhosein, 2013; Bećirović et al., 2021; Khodkarami, 2022). In addition, virtual or online teaching features more equal participation than non-virtual teaching (Zhao, 2013).

Actually, due to the COVID-19 epidemic online instruction have spiked and online classes replaced in-person classes (Cong-Lem, 2018; Martin et al., 2019; Chahkandi, 2021). As such, the present study gains specific significance as virtual instruction has become an unavoidable part of the instructional systems throughout the universe and the key to efficient virtual instruction is taking

students' individual characteristics into account. Before the Covid-19 epidemic, only a few Iranian educational institutions had adopted the virtual mode of teaching. With the advent of such plague, all Iranian educational institutions were mandatorily required to use online education. Therefore, it is essential to know the impact of EFL learners' individual differences on their ultimate achievement of speaking and writing skills using this novel mode of teaching (virtual instruction) to determine its defects and advantages and develop it for future usage.

Review of the Literature

Age factor has been considered as the major factor in determining language EFL learners' success in foreign language acquisition and is correlated to the assumptions stated by Critical Period Hypothesis and Neurological Hypothesis. Most importantly, these assumptions concluded that that language learning is better at early ages than older ages. In fact, there is still a widespread belief held by many scholars, stating that young children are better at second language acquisition (SLA) than the later starters, such as the adolescents or adults (Sharabidinovna et.al's, 2020).

Indeed, based on previous studies individual's success in becoming skilled at a new language was believed to depend largely on individual's age. Such claim was based on the observation that children appear to learn their first language quickly and easily, while adults often need years of education to achieve a similar proficiency. Likewise, some leading researchers concluded that children are usually more successful language learners in comparison to adults. As young children easily learn a second language, we draw the conclusion that the earlier one learns a second language the more successful it would be. However, experimental studies have refuted such general assumption (Zafar & Meenakshi, 2012). While, it is generally agreed that there are "general age factors" in second language acquisition (Singleton & Ryan, 2004), but there is no general agreement on the presence of cutoff points. For instance, the idea of a "critical" period was rejected by Birdsong (2005) and he argued that the decline in second language proficiency is progressive instead of being decisive and is spread over the age continuum.

Concerning the role of gender variable in EFL, early evidence point out that male learners have less advantage compared to their female counterparts (Bacon & Finnemann, 1992). The term gender was originally used in linguistics and later in other social sciences (Kayaoğlu, 2012). It represents "masculine and feminine categories constructed in society" (Sadiqi, as cited in Kayaoğlu, 2012: 14).

In recent times, differences in support of females have been found in using language learning strategies, positive attitude to second language learning, etc. (Fasold et al., 2014). Compared to male learners, female learners frequently speak more 'correctly' (Baker & Hengeveld, 2012). Additionally, while males' speech involves numerous pronunciations and grammar mistakes, females speak more fluently with less stress and pauses (Nasab & Motlagh, 2017).

In the same vein, foreign language learning anxiety can also play an important role in second

language learning (Karimi Baghmalek, 2021). With rising concern being devoted to foreign language learning, anxiety has been ranked to be a crucial challenge for language learners (Oteir & Al-Otaibi, 2019). In fact, anxiety is another key variable among the numerous elements influencing EFL learning (Gass and Selinker, 2008). It is not easy to define anxiety albeit it is a common feeling. It is related to the feelings of nervousness, frustration, self-doubt, apprehension, or worry which are associated with stimulation of autonomic nervous system (Horwitz et al., 1986). For many students second/foreign language learning can often be a stressful experience. The number of learners who report that they feel anxious while learning a foreign language is bewildering. In the same vein, research has revealed that language anxiety is one of the most powerful predictors of language accomplishment and that it has devastating influences on the EFL learners (Jugo, 2020). In addition, research indicates that when it comes to speaking or communicating, majority of second or foreign language learners experience anxiety (Nande, 2017; Rihardini, 2020).

However, while in general the relationship between anxiety and foreign language learning is reported to be negative (Liu & Chen, 2015; Yashima et al., 2018) other researchers have emphasized the positive dimensions of anxiety for second or foreign language acquisition (Budin, 2014; Azmi & Sham, 2018). Similarly, scholars found that the apparent differences between online learning and face-to-face learning could result in anxiety, which would probably hamper learners' learning (Phanphech et al., 2022)

In addition, research indicated that one of the vital factors for second language acquisition is teachers' method employed in the class (Ahmadi & Reza, 2018). As stated by Gençler, virtual instruction provides infinite resources to language learners (İlter, 2015). Likewise, (Tomlinson, 2011) and (İlter, 2015) pointed out that online instruction provides students with fast information and suitable materials and inspire students to learn further. Indeed, virtual or online courses enjoy a very good potential and can be as good or even better than in-person courses (Westhuis, Ouellette, & Pfahler, 2006). Furthermore, in such courses time is flexible and the content can be reviewed when necessary from virtually every place (Akbari, TABRIZI, & Chalak, 2021; Filimban, 2008).

In point of fact, although there is adequate research about age, gender and foreign language learning anxiety variables in traditional in-person classes, there is still a scarcity of accessible studies investigating the impact of these individual differences in Iranian context and to the researcher's best knowledge no prior research even attempt to unravel their influences on Iranian EFL students' speaking and writing skills via virtual instruction and the current research is the newest.

Research questions

Aiming at solving the above-mentioned problem, the current research scrutinized the influences of such individual differences on Iranian EFL students' speaking and writing skills through virtual teaching. Specially, the study attempted to answer the these questions:

1: Is there any statistically significant relationship between the age variable and EFL learners' productive skills taught via virtual instruction?

2: Is there any statistically significant relationship between gender variable and EFL learners' productive skills taught via virtual instruction?

3: Is there any statistically significant relationship between foreign language anxiety variable and EFL learners' productive skills taught via virtual instruction?

The following research hypotheses can be set forth for the above-mentioned research questions:

H1: The age variable does not have any effect on productive skills of Iranian EFL learners taught via virtual instruction.

H2: The gender variable does not have any effect on productive skills of Iranian EFL learners taught via virtual instruction.

H3: The foreign language anxiety variable does not have any effect on productive skills of Iranian EFL learners taught via virtual instruction.

Research methodology

Design

The present research employed a concurrent triangulation mixed method design which consists of collecting, scrutinizing and mixing qualitative and quantitative research concurrently or in parallel. The purpose of such design is to gather different but complementary data on a subject to understand the research problem more profoundly and to increase the research reliability and validity ((Morse, 1991).

Participants

From the accessible population, a sample of 158 Iranian male and female EFL were randomly selected from two language institutes in Isfahan. To ensure the participants' level of proficiency, a placement test was held and 60 B1-level English proficiency EFL students were selected. The learners' age range was 16–40 years and their first language was Farsi. The number of female participants was 30 while that of male participants was 30 as well.

Instruments

To gather the intended required data in a timely manner, a number instruments including Oxford Placement Test (OPT), Foreign Language Anxiety Scale (FLCAS), IELTS Speaking and writing tests and semi-structured interviews were utilized. In what follows, the instruments used along with their accompanied brief description are touched upon.

Oxford Placement Test (OPT)

OPT involves two test pads with 100 questions in the listening part consisting of 100 items and 100 additional questions in the grammar part (Allen, 1992). For the current research, only B1-level English proficiency EFL learners scoring between 130 to 140 were chosen. OPT reliability was examined and turned out to be quite high with Cronbach's alpha of 0.93.

Foreign Language Anxiety Scale (FLCAS)

This instrument measures foreign language learners' level of anxiety. For every item, a score ranging from 5 for strongly agree to 1 for strongly disagree is given. A higher score attained by the instrument would show a higher level of foreign language anxiety. The order of scoring is reversed for items that are worded negatively (items number 2, 5, 8, 11, 14, 18, 22, 28 & 3), consequently, a higher score would be an indicator of higher anxiety (Aida, 1994). Possible scores range from 33 to 165. Many researchers found high reliability for this instrument (Horwitz et al., 1986; Aida, 1994; Matsuda & Gobel, 2004; Elkhafafi, 2005). Considering the validity of the FLCAS, it can be concluded that in general, it is valid (Aida, 1994).

According to Gerencheal (2016), foreign language anxiety scale scores would be an indicator of one of the five anxiety levels: very low anxiety (X=33-82), moderately low anxiety (X=83-89), moderate anxiety (X=90-98), moderately high anxiety (X=99-108) and high anxiety (X=109-165). In addition, the instrument was validated by two Ph.D. holders in TESOL. Also, its internal reliability, using the data from the pilot study through Cronbach's Alpha, was estimated to be (0.963) and proved to be very high.

Pretest and Posttest IELTS Speaking

These tests were given prior to and following the intended experimental treatment in order to determine the learners' proficiency in speaking. IELTS speaking test was in the form of face-to-face interviews containing three sections and continued 11 to 14 minutes. Students were given a band score between 1-9. In general, IELTS speaking test is valid and reliable and covers the full range of proficiencies from non-user to expert users (Li, 2019).

Pretest and Posttest IELTS Writing

These tests were given prior to and following the intended experimental treatment in order to determine the learners' proficiency in composing a piece of writing on broad and general topics requiring a minimum length of 250 words. The researcher demanded the views of two university instructors who held Ph.D. degrees in TEFL to determine the content validity of the test. Also, inter-rater reliability was calculated using the statistical tool of Cronbach's α which turned out to be desirable (0.89). Both IELTS speaking and writing tests were administered to the learners at two points in time, at the beginning and the end of the course.

Semi-structured interviews

The interview data aimed at triangulating the obtained results. In the present study, semi-structured interviews comprising of 7 questions were used. Each learner was interviewed only once, immediately after the end of the course. The interviews were carried out in Farsi and were piloted with 10 female and male EFL students at similar proficiency level.

Procedure

Prior to commencing the instructional intervention, 158 students from two language institutes in Isfahan, Iran were chosen as the research sample by utilizing the convenient sampling procedure. Afterwards, 60 participants were chosen according to the OPT results. After conducting pilot testing to check the validity and reliability and practicality of the instruments, pretests of IELTS speaking and writing proficiency tests was administered to both groups. Pilot testing was conducted to guarantee the validity and reliability of the instruments (Majid, Othman, Mohamad, & Lim, 2016).

Afterwards, their teacher instructed the EFL learners online. The experimental intervention lasted for 12 instructional weeks during which students were instructed three sessions every week. The material of the study was the American English File 2. According to an in-depth analysis, American English File series instructional advantages and positive qualities were far greater than its deficiencies (Haghverdi & Ghasemi, 2013). As participants were at the B1 level of English proficiency, American file 2 was taught to them and in every session, 2 pages of it were taught.

Finally, the posttests of IELTS speaking and writing proficiency tests, were given to the students to realize if they show any change in their speaking and writing proficiency. Moreover, the foreign language anxiety questionnaire was also distributed among the participants and they were given the instructions on how to fill out such questionnaire. Two Ph.D. holders who had been previously consulted with on rating the submitted writing tasks were invited to rate the created sample writing. The four criteria of IELTS writing task 2 was equally weighted on the scale of 1 to 9. The final scores for the IELTS writing task 2 were an average of marks given on the four criteria of Task achievement, Coherence and cohesion, Lexical resource, grammatical range and accuracy. The final scores for the IELTS speaking were an average of marks granted on the four criteria of Fluency & Coherence , Lexical Resource, Grammatical range and accuracy and Pronunciation. These are the scoring criteria commonly used to allocate scores to IELTS speaking and second writing tasks. To ensure that the tests possess a satisfactory reliability coefficient, the internal consistency between ratings was calculated by means of the statistical tool of Cronbach's α (0.89) which indicated a desirable inter-rater reliability.

For data analysis purposes, using SPSS 21 software , descriptive statistics were run for the foreign language anxiety questionnaire data and IELTS speaking and writing tests. A series of inferential statistics including t-test and ANOVA were used to test the Null hypotheses. To scrutinize the relationship between the variables, Pearson Product Moment Correlation was also employed.

Furthermore, the semi-structured interviews were analyzed qualitatively by finding the most frequent themes. Such thematic analysis was carried out based on Braun and Clarke (2006).

Results

The following research questions were addressed in the present study:

The first research question was associated with the effect of age factor (as a biological variable) and EFL learners' productive skills through virtual instruction. To answer this question, firstly, descriptive statistics and then inferential statistics - ANOVA - were employed.

Table 1. Descriptive Analysis of Students' Age and Their EFL Productive Skills Scores

	N	Minimum	Maximum	Mean	Std. Deviation
Age	60	16	40	28.25	7.196
Productive Skills	60	3.50	5.50	4.6000	.63646
Valid N (listwise)	60				

As indicated in Table 1, the mean age of the participants was 28.25 while their attained mean score of productive was 4.60. Meanwhile, the highest score for productive skills was 5.50 while the lowest score for productive skills was 3.50.

Nonetheless, to make a convincing claim as regards to such significant mean differences, ANOVA was used to figure out if there is a need to reject the first null hypothesis or accept the alternate hypothesis.

Table 2. The Results of One-way ANOVA for Productive Skills

Productive Skills	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.932	4	.483	1.209	.317
Within Groups	21.968	55	.399		
Total	23.900	59			

Interestingly, the data analysis, through one-way ANOVA, revealed no significant relationship between the two variables ($p_value = 0.317 > .05$). Therefore the first null hypothesis according to which there is no statistically significant relationship between the age variable and EFL learners' productive skills achievement is not rejected and no major differences were observed in the achievement of EFL productive skills in different age-groups.

The second question was concerned with the possible influence of gender variable on EFL learners' productive skills taught by virtual instruction. Again, first descriptive analysis was conducted.

Table 3. Descriptive Statistics of Male and Female EFL Productive Skill Scores

	Sex	N	Mean	Std. Deviation	Std. Error Mean
Productive Skills	Female	30	4.5167	.60861	.11112
	Male	30	4.6833	.66285	.12102

Table 3 manifests that male and female students' mean scores are relatively similar. The results of descriptive statistics revealed a disparity between the two group's mean scores as females' mean scores reached 4.516 while that of male students reached 4.683 indicating a mean difference of 0.167. To check if the resultant figures confirm the existence of a statistically significant difference, an Independent Samples t-test was administered and the results are presented in Table 4.

Table 4. The Results of Independent Samples t-test for Male and Female Achievement of EFL Productive Skills

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Scores of Productive Skill	Equal variance assumed	0.438	0.511	-1.014	58	0.315	-0.1667	0.1643	-0.4955	0.1622
	Equal variance not assumed			-1.014	57.5	0.315	-0.1667	0.1643	-0.4955	0.1622

According to Table 4, and also the sig value (0.511 > 0.05), it can be seen that the amount of t observed (-1.014) is not significant at the probability level of (P_value = 0.315 > 0.05) which doesn't stand for a statistically significant difference meaning that the alternative hypothesis (Ha) is rejected and the second null hypothesis (Ho) is accepted. Thus, it was found that there is no significant difference between male and female participants in the final attainment of EFL productive skills.

Concerning the third research hypothesis that there is no statistically significant relationship between the foreign language anxiety and EFL speaking and writing skills achievement via virtual instruction first means, standard deviation, frequency and percentage were calculated to describe language anxiety level. Then, the relationship between foreign language anxiety and the productive skills achievement of the EFL learners was also conducted.

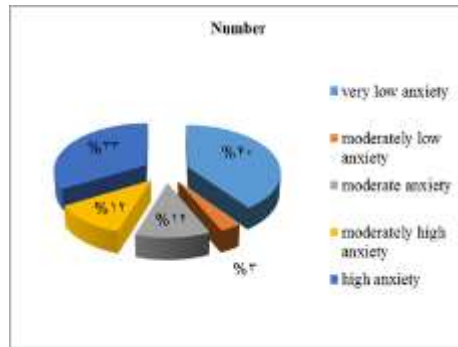


Figure 1. The Percentages of Participants' Foreign Language Anxiety

As can be seen in Figure1, 40% (24 learners) of the participants experienced very low level of foreign language anxiety, 3% (2 learners) moderately low anxiety, 12% (7 learners) moderate anxiety, 12% (7 learners) moderately high anxiety and 33% (20 learners) high anxiety. Furthermore, to find out the average foreign language anxiety level of the participants' descriptive statistics were also conducted.

Table 5. The Results of the Descriptive Statistics for the Foreign Language Anxiety Questionnaire

	N	Minimum	Maximum	Mean	Std. Deviation
Anxiety Scores	60	40.00	159.00	94.4000	28.16609
Productive Skills	60	3.50	5.50	4.6000	.63646
Valid N (listwise)	60				

According to Table 5, the mean score of FLCAS scores is 94 suggesting moderate anxiety ($X=90-98$) among the participants. In addition, to find out if there is any statistically significant relationship between foreign language anxiety and EFL learners' speaking and writing skills, Pearson correlation between FLCAS questionnaire scores and productive skills scores was also calculated.

Table 6. Pearson Correlation Between Foreign Language Anxiety Questionnaire Scores and EFL Productive Skill Scores

		Anxiety Scores	Productive Skills
Anxiety Scores	Pearson Correlation	1	-.772**
	Sig. (2-tailed)		.000
	N	60	60
Productive Skills	Pearson Correlation	-.772**	1
	Sig. (2-tailed)	.000	
	N	60	60

****.** Correlation is significant at the 0.01 level (2-tailed).

According to the results, it can be inferred that there was a significant relationship between EFL learners' foreign language anxiety and their EFL productive proficiency ($r = -0.772$) ($p < .05$). Hence, it can be concluded that the two variables are strongly related to each other. Therefore, the

research third null hypothesis stating that there is no significant relationship between EFL learners' foreign language anxiety in the online class and their EFL productive skills achievement is rejected. Moreover, because the correlation is negative, in the negative direction, any increase in the scores on the foreign language anxiety questionnaire (the higher the level of anxiety becomes), would lead to a decrease in the scores of EFL productive skills.

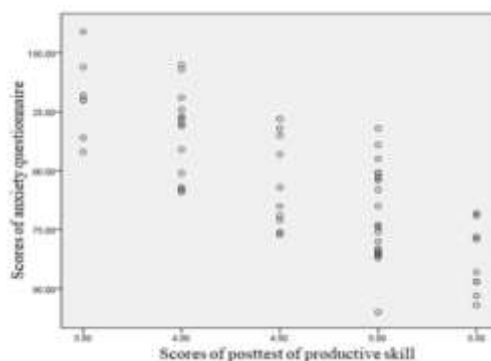


Figure 2. EFL Learners' Foreign Language Anxiety Correlation With Their EFL Productive Skills.

Based on Figure 2, as the score of the foreign language anxiety questionnaire rises (the more the level of anxiety becomes), the score of productive skills decreases.

Semi-structured Interviews Results

To expand and validate the findings of the study and foreign language anxiety questionnaire, detailed semi-structured face-to-face interviews were also conducted. The learners' interview responses with detailed examination of each sentence and phrase led to finding the themes which were representative of the students' opinions about the examined issue. In other words, the researcher went through the EFL learners' transcribed replies and selected the most typical themes that could be extracted.

Table 7. The Frequencies and Percentages of the Interview Responses

Proficiency	Theme	F	%
Pre-Intermediate	More self-confidence because of more control and comfort in the online class	35	58.3
	less anxiety and less stress	23	38.3
	Problem with doing online assignments	16	26.67
	Fear of negative evaluation by the professor and other classmates	11	18.33
	Low internet speed	21	35
	Lack of preparation	13	21.67

According to Table 7, the students identified a sense of confidence and lower anxiety resulting from many factors of the online learning environment such as the control they have (58.33%).

Moreover, the findings showed that several factors caused anxiety among the students, such as assignments (26.67 %). According to the opinions of most of the participants, one of the causes of anxiety is the fear of being addressed by the professor and not being able to answer the professor's questions properly, which caused them to be ridiculed by their classmates (18.33%). Also, because they were not prepared enough they were worried and anxious about not being able to understand their professor's speech (21.67%). Likewise, (35 %) of the participants said they feel anxious because of low internet speed and problems with uploading and downloading the files. However, in their opinions, online classes are less stressful in comparison to traditional in-person classes and they experience less anxiety due to less face-to-face contact with their professor and classmates, as well as getting help from the books.

Discussion

The current study attempted to investigate the impact of biological, social and affective individual differences on EFL learners' productive skills via virtual instruction. Regarding the first research question, this study's upshots are compatible with those proliferated in other international and pertinent local studies, such as Sharabidinovna et al., (2020) based on which foreign language achievement was not better in learners who started learning English at younger ages and language learning at younger ages does not guarantee successful language learners. Indeed, such finding cast doubt on the overreliance on strictly biological dimensions of second language acquisition in formal educational settings. The results illustrates that the age concept might be a micro-variable that cannot be separated from other individual differences and that failure in language mastery reported for adult learners has to be accredited with a variety of factors.

Besides, the findings are in line with the claim that there was a negative correlation between age and second language achievement and no advantage was found for younger ages regarding second language acquisition (Singleton & Leśniewska, 2021). Moreover, such important discovery might run counter to the findings unraveled by Gawi (2012) since his experimental study revealed that age factor affects EFL learning and claimed that language learning at younger ages results in better performance. Clearly, according to the findings of the present research, age factor didn't have an important effect on the EFL learner's language acquisition. The results didn't confirm that learning a second or foreign language at younger ages accelerates the process of developing learners' language proficiency (Kusić, 2022).

Moreover, the findings obtained in the current study are not in line with the propositions put forward by Ellis and Sagarra (2010) who argued that there is limited attainment among adult language learners. Nevertheless, the findings were not in harmony with another research according to which older ages are more appropriate for language learning (Herwiana, 2017). To obtain a full-fledged understanding of the meditating role of age factor as a biological individual difference in EFL productive skill proficiency, more research is needed especially in online classes.

Concerning the second research question, the finding is not consistent with some earlier studies

which suggested that, on average, female learners will perform better than males on EFL speaking and writing skills (Van Der Slik et al., 2015). Such finding can be very insightful since there is a lack of studies inspecting gender differences in multiple second language skills and online educational systems simultaneously which makes it difficult for EFL teachers and relevant stakeholders to decide about the best teaching approach and whether any interventions are essential. In fact, gender-differences can endanger learners' equivalent chances for education and employment which makes it a concern to teachers, researchers and policy makers, alike.

Such finding is also in disagreement with another study based on which female learners obtain higher scores in all aspects of speaking (Erdiana et al., 2019). In addition, the results are not in harmony with some earlier studies which revealed that males performed significantly better than females in foreign Language learning (Musa et al., 2016). Furthermore, although it is generally believed that gender influences EFL writing skills (Cheng, 2002; Jafari & Ansari, 2012; Noroozi et al., 2022) but the results of the current study didn't support such finding. Likewise, although there is a plethora of research (Rudzinska, 2013) emphasizing the existence of gender differences by claiming females to be better language learners compared to men, the findings of the present study didn't support this.

Moreover, the results are inconsistent with several other studies on the impact of gender on language acquisition in general and writing in particular (Shang, 2013; Sajadi & Maghsoudi, 2016; Noroozi et al., 2022). Similarly, while other studies (Bacon & Finnemann, 1992; Benattabou et al., 2021), inspected gender differences in EFL speaking and writing skills and reported that females were better language learners than males, the current study didn't support such finding. Nonetheless, the findings are in harmony with Sajadi and Maghsoudi's (2016) study that reported no gender impact on Iranian EFL learners' achievement, since both women and men performed equally on the test.

Also, with reference to the third research question the findings support the results of other studies (Liu & Chen, 2015; Teimouri et al., 2019) according to which the relationship between foreign language learning and anxiety is generally reported to be negative. Also, the results are consistent with other researchers who confirmed that language learning anxiety is one of the most devastating factors in the process of language learning (Wang & Chang, 2010; Dörnyei, 2014; Yashima et al., 2018). In support of the findings as to the negative relation between EFL class anxiety and English productive skill performance, MacIntyre and Gardner (1991) stated that anxiety declines in a consistent way as experience and proficiency increase, and weak language performance in turn strengthens foreign language anxiety level.

Additionally, in line with the current study which demonstrated that foreign language anxiety can impact EFL learning negatively, the investigation conducted by Na (2007), and Spielmann and Radnofsky (2001) also supported the view that in general foreign language anxiety can impact EFL learners' accomplishments negatively. However, the findings are not compatible with another study

(McMillan, 2021) which revealed no significant relationship between EFL student anxiety in the class and their level of achievement. In fact, considering the new learning environment which was predominantly introduced by the epidemic, such feelings of anxiety are not likely to decrease rapidly and more research are needed in this field(Iida, 2016).

In the same vein, if teachers cannot recognize highly anxious learners by simply looking at them they may run a FLCAS for diagnostic purpose. Besides, they should aid students in adopting an attitude that mistakes are an inevitable part of language learning and no one is perfect. Additionally, overcorrection should also be avoided by EFL teachers meaning that they should not correct every single students' error and instead develop error correction techniques and strategies which would build students' low self-esteem and consequently decrease anxiety and negative affect. Teachers are also recommended to avoid sarcasm and intimidation and threatening style and instead encourage students and give them more positive feedback. If underachievers are found to suffer from anxiety, teachers should equip them with strategies to properly deal with distressing circumstances.

Conclusion

The current mixed method investigation, conducted amid Covid 19 crisis, was a bid to probe into the effect of biological, social and affective individual differences on EFL speaking and writing competency in online classes among EFL B1 level students in Iran. The findings revealed that there was a significant relationship between EFL learners' level of foreign language anxiety (as an affective individual difference) and speaking and writing skills in online class and high levels of anxiety hindered EFL learners to have successful speaking and writing skills accomplishment. Yet, according to the findings, no significant relationship was found between age (as a biological individual difference) and gender (as a social individual difference) variables and EFL productive skills.

Regarding age variable, discussions and studies about the effects of age on foreign languages have been widely conducted until today but yet the real answer remains unclear. Age is vital but may not be a dominant factor. It may not be completely the age factor that impacts foreign language acquisition, but several individual differences factors at work, and as the findings of this study showed the general assumption that young learners are more skillful than older ones may be refuted. Nevertheless, according to the results, although foreign language anxiety was the most important variable in EFL productive skills, but age and gender variables may also be at least to some degree important. Furthermore, regarding age as a biological variable the findings of the current research didn't support previous studies and it concluded that foreign language achievement was not better in learners who started English learning at younger ages.

Furthermore, although based on the researcher's observations there were imbalances in boys' and girls' rate of participation during interaction manifested by their verbal and nonverbal communications, gender differences did not prove to be a sufficiently robust variable affecting EFL learners' productive achievement via virtual instruction. Indeed, regarding the role of gender

as a social variable in the achievement of EFL productive skills, the findings deviate from the findings of available studies, and no significant difference was observed in the achievement of productive skills by EFL male and female participants.

With regard to the effect of foreign language anxiety on EFL learners' productive skills, it is important to remember that such factor actually does exist and the only way for helping EFL learners to overcome such anxiety is to be aware of it. In fact, one of the major findings in this study is that foreign language anxiety is present in online EFL students, at least among the students that took part in the current study. Therefore, online EFL teachers have to be creative and innovative to make an attractive and effective teaching and learning process leading to the formation of a less threatening learning environment for the students.

Actually, teaching foreign languages online is a new and demanding occupation that requires a lot of energy, creativity, and imagination. Likewise, many researchers agree that foreign language acquisition is emotionally charged for learners (Khajavy et al., 2018; Mierzwa-Kamińska, 2021). As such, this study may serve as a guide for EFL teachers by improving their understanding of foreign language anxiety from the viewpoint of the EFL learners, especially in online classes. Studies like this can also provide valuable visions into how EFL teachers can devise suitable interventions for reducing foreign language anxiety among online EFL learners.

Drawing upon the findings offered, online EFL educators should take all such biological, social and affective individual differences into consideration which in turn can dramatically improve EFL students' productive skills in particular and their EFL learning in general. Indeed, under ideal learning situations, by taking care of individual differences, everybody can reach an excellent EFL level. The current research results can be precious for educators, material designers, parents, and learners in finding the most effective approach to learning and teaching English online.

The final conclusion that can be drawn, implicitly, from this study is that although in recent years research on individual differences in language learning has increased, still much remains to be done and the majority of individual differences stay under-researched, especially in online EFL classes. The current study's findings can be employed as a starting point for offering some pedagogical implications, by helping EFL syllabus designers to advance programs, design syllabi and inspiring textbooks that take into account EFL learners' biological, social and affective individual differences.

As a matter of fact, the study's quantitative and qualitative findings imply a variety of instructionally supportive implications for various English language teaching stakeholders, including EFL learners, EFL teachers and ELT curriculum planners since it focuses on the crucial and often neglected role that individual differences may play in the process of syllabus design and improving EFL learners' writing and speaking proficiency. As an illustration, in developing new English textbooks materials developers may be convinced and encouraged to pay more attention to the critical role of individual differences in acquiring a foreign language.

In fact, EFL educators are expected to pay attention to individualize their instruction in order to

meet the requirements of each particular student. It should take the form of programmed teaching phenomenon, which allows the educators to adapt individual learner differences and in which students are able to work at their own pace and use the materials they find comprehensible. Also, identification of learners' differences will provide guidelines to EFL teachers to tailor their teaching methods to avoid mismatches between classroom practices and learners differences. As one of the practical implication of the study, it is of paramount importance that the individual differences are discussed with the foreign language teachers so that adequate measures can be taken to for example lessen EFL learners anxiety that affects student's EFL learning because anxiety seriously impedes performance and if students are always in anxious situation, they will suffer from many failures (Gregersen, 2006). Lessening students' anxiety and motivating them can create a natural context that helps them communicate actively in a less stressful environment for achieving higher levels of EFL proficiency. According to Krashen (1982), language anxiety is one of the major elements that determine the level of comprehensible input received, hence, as the implication of the present research, online EFL learning environments should be improved and become less stressful.

Furthermore, according to Oxford (2003), there is an urgent need for awareness amongst EFL teachers regarding the individual differences among students in class as she believes that it is foolhardy to think that a single L2 methodology could possibly fit an entire class filled with students who have a range of individual differences. In fact, the analysis of these individual differences reiterates the commonly held belief that a language teacher, apart from imparting knowledge must also be a psychologist who can modify his/ her teaching methodology according to the factors related to the individual differences of his/ her students. It is not enough to just know that all students are different from each other. The teacher should also be skilled and willing enough to help the students use these differences to their advantage in the process of second language acquisition. In the same way, as virtual instruction is evolving it is of paramount importance that ELT online curriculum planners pay attention to individual differences and learners' preferences. Thus, it is hoped that the pedagogical implications of the findings will further lead to the kind of teaching practices that increase the success ratio at EFL acquisition especially in online classes.

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