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Investigating the Problems with Translating Specialized English Texts among Elementary Education Student Teachers

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Abstract
Elementary school teachers should keep pace with the constant changes in educational research, subject knowledge, and teaching strategies. Since Farhangian University plays an essential role in pre-service teacher training, acquainting teacher-students with the specialized language is essential. Therefore, this qualitative cross-sectional study was conducted to investigate translating problems with specialized English texts among elementary education student-teachers. The target population was the elementary education student-teachers of West Azerbaijan Farhangian University. Using random sampling, 30 students were selected and asked to translate an English text of 120 words into Persian. In addition, they were asked to translate a 120-word Persian abstract into English and to calculate how long the translation took. The translation scripts were collected and their content was analyzed and the initial coding was done. Based on the coding, for English to Persian translation, the main identified categories were vocabulary, structure, and comprehension. Moreover, two categories including vocabulary and structure were identified for Persian to English translation. Then, translated scripts were analyzed based on these categories. The results indicated that lack of acquaintance with the necessary grammatical structures and principles of effective writing were major challenges for participants. Furthermore, interviews were conducted to identify the steps taken by participants in the translation process and the problems they faced in this process. The analysis of the conducted interviews indicated that the majority of the participants did not take the proper sequence of steps in the translation process.

1. INTRODUCTION

Education ensures economic growth and development of a country not only by triggering, promoting, and sustaining entrepreneurial and technological developments but also by securing economic and social progress and improving income distribution. The rapid technological change

and advancement in science encourage all countries to use their capacities and unlock the potential of young people, but this can be achieved by transforming the educational system and replacing it with an effective one (Avesta et al., 2019). The production of knowledge and its optimal application in the process of education will increase the knowledge and ability of students and teachers, which in turn makes the education system more successful in its most important goal, training of capable and efficient human resources (Monfaredi et al., 2015). Therefore, one of the main tasks of the educational system is to equip students with new knowledge (Islamian et al., 2013).

Since 24% of the total population is under 14 years old (https://worldpopulationreview. com/countries/iran-population), education plays a vital role in achieving sustainable development in Iran. In a document that was approved in 1998, Supreme Council of Education highlighted that national development is the main goal of education in order to boost productivity, realize social and national integration, and foster social, moral, and spiritual values with putting a strong emphasis on strengthening the faith of Islam. The goals that were approved by this council also highlighted the role of education in human resource development for economic growth (Ministry of Education, 2013); therefore, it can be claimed that education is a priceless investment in the future. It has been argued that primary education is the most important cycle of education. Enabling the students to read and write, improving their numeracy skills, and providing necessary training on appropriate social behaviors are the main objectives of primary education in Iran. It has been proved that qualified teachers are the most crucial factor in any educational system. As teachers should constantly renovate and improve their knowledge and skills, they should remain up-to-date to enhance their expert power (Santelises, et al., 2015).

The Role of English in Today's World and English Language Teaching in Iran's Educational System

English as an international language is accepted as the global business and scientific language in the new commerce-driven world. Nonnative speakers saw it as the new lingua franca that responded to their needs of cross-cultural communication, business doing, and information sharing (Teodorescu, 2010). English is the scientific language of the world and acts as a lingua franca for sharing ideas and discoveries (Mauranen et al., 2016). Today, English has particular importance due to its international nature and its widespread use as a means of communication that can advance other subjects. The beginning of teaching and learning English in Iran dates back to the 1960s and 1970s when the British Cultural Council and the American-Iranian Association were active in offering English language courses (Yarmohammadi, 2005). Iranian Students start learning English in the seventh grade and it continues up to the university levels. But it has been claimed that students are not able to communicate in English in real contexts despite studying English for a long period of time in schools (Mostofi, 2018). Furthermore, since English is a foreign language in Iran, language learners do not have the opportunity to use it in real life. Therefore, English is limited to classrooms and learners have few opportunities to use English outside of the classroom. As Brown (2000) pointed out learning English as a foreign language involves learning it in the context of that language and with the opportunity to use it immediately in that culture.

English for Specific Purposes

During the 1960s, changes in the world's markets resulted in the rising of English for specific purposes as a discipline. It has been argued that English for specific purposes has grown into a trend in English language teaching and research (Bracaj, 2014). Hutchinson and Waters (1987) stated that the early origins of English for Specific Purposes (ESP) date back to the end of the

Second World War. It can be claimed that ESP emerged due to the development of the world's economy, which included the progress of technology, the economic power of oil-rich countries, and the increasing number of overseas students in English-speaking countries (Hutchinson & Waters, 1987). Johns and Dudley-Evans (1991) stated that the international community recognized the importance of learning English not only as a means to achieve the transmission of knowledge and communication but also as a neutral language to be used in international communication. Dudley-Evans (2001) stated that English for specific purposes has three variables: "English for specific purposes has to be related to specific disciplines; use a different methodology from the one used in General English and be aimed at intermediate to advanced adult learners" (p. 131). As a branch of applied linguistics, English for specific purposes focuses on the relationship of the teaching and learning process to the needs of learners and it is based on the fact that we use language to achieve specific goals and to communicate with members of a particular social group (Hyland, 2009).

Farhangian University as the largest and most comprehensive teacher-training center in the country, was established after the approval of the Supreme Cultural Revolution Council and the merging of all teacher-training colleges in 2011. It includes about 100 branches and 78,022 enrolled student-teachers throughout the country. Its curriculum focuses specifically on teacher education. One of the obligatory courses at Farhangian University is English for Specific Purposes which aims to enhance student-teachers' English knowledge to meet their academic and occupational needs. Therefore, this study aimed to investigate the problems with translating specialized English texts among elementary education student-teachers.

Review of Literature

Although translation was recognized as the reason for the Grammar-Translation Method's failure in meeting the needs of language learners, some scholars have turned attention to the role of translation in language teaching in general and in English for Specific Purposes in particular since the last decade of the twentieth century (Mažeikienė, 2019; Ziyaei & Gharaei, 2022). Moreover, Chirobocea (2018) stated that using translation activities as a language-learning device has been gaining ground for many years.

Translation is sometimes referred to as the fifth language skill alongside the other four basic skills of listening, speaking, reading, and writing. Furthermore, translation from L1 to L2 and L2 to L1 is recognized as the most important social skill since it promotes communication and understanding between strangers (Ross, 2000). Kavaliauskienė and Kaminskienė (2009) believed that practicing all language skills (reading, writing, speaking, and listening) and developing communicative competence, accuracy, clarity, and flexibility are the benefits of translation activities. They argued that the ability to translate from L2 into L1 and from L1 into L2 is a skill that is closely related to reading and writing. Furthermore, they stated that individual strengths and weaknesses in the use of the languages may be identified by translating activities. Furthermore, some studies demonstrated that two skills of reading and writing are closely related to translation ability (Kavaliauskienė & Kaminskienė, 2009). Kovács (2018) also pointed out that the reading level influences the ability to translate the texts.

Duff (1989) argued that teachers and students utilize translation to learn. Translation entails two languages and differences in the system and structure of the source language and the target language are the most essential obstacles in the translation process (Wu, 2008). Furthermore, Newmark (1988) stated that translation methods and translation procedures are not the same, since translation procedures are related to sentences and the smaller units of language, whereas translation methods focus on whole texts.

It is noteworthy that learners' determination and interest in language learning may be enhanced by motivation. According to the Oxford Learner's dictionary, motivation means the feeling of wanting to do something, especially something that involves hard work and effort. Oxford and Shearin (1994) believed that motivation plays a significant role in L2 learning. They argued that "Motivation determines the extent of active and personal involvement in L2 learning." (Oxford & Shearin, 1994, p.12). In addition, they pointed out that contributions from many aspects of psychology, including general, industrial, educational, and cognitive-developmental, are beneficial for an extended vision of L2 learning motivation. Furthermore, Gardner and Lambert (1959, 1972) introduced the notions of instrumental and integrative motivation. While instrumental motivation is defined as the learner's desire to learn a language for practical purposes, integrative motivation refers to the desire to learn a language in order to be incorporated into the social structure of the target language community. It can be concluded that instrumental motivation plays a more important role than integrative motivation in teaching English for specific purposes to teacher-students. Furthermore, Liao (2006) believed that translation can help reduce learning anxiety and enhance motivation to learn L2.

Studies have shown that translation may promote foreign language learning. For example, the findings of a study conducted by Soleimani and Heidarikia (2017) showed that the use of literal translation promotes the noticing and learning of the participial phrases and absolute constructions of EFL students. The findings of another study conducted by Ghaiyoomian and Zarei (2015) showed that using translation from Persian to English affects language accuracy in intended grammatical structures. Furthermore, Perkin (1985) pointed out that linguistic awareness of contrast between first and second languages' grammatical structures may be facilitated by the use of translation. Calis and Dikilitaş (2012) also conducted a seven-week classroom-based research on the use of translation as an L2 learning practice and found out that the participants believed that their reading comprehension and target vocabulary memorizing improved by using translation. It should be mentioned that it has been argued that translation may facilitate learning, especially with regard to English for specific purposes. For instance, Kavaliauskienë and Kaminskienë (2007) argued that all learners rely on their mother tongue in learning English for Specific Purposes. Mažeikienė (2019) also analyzed the selected academic publications in order to investigate the use of translation in the teaching as well as learning of English for specific purposes and found out that translation-based activities will be useful for the ESP learners, on condition that the amount of the translation that is used in the teaching-learning process is well-balanced and activities are well-planned.

Needs Analysis

Richards (2012) defines needs analysis as "the procedures used to collect information about learners' needs" (p. 51) whereas according to Tudor (1996) needs analysis refers to the research of the learners' conceptual and expressive agendas. While West (1994) believes that needs analysis is done for practical purposes; in other words, the educators investigate the learners' target situation needs to design their course syllabus. Long (2005) argues that "needs analysis is a precondition for effectual course design" (p. 1).

Needs analysis is one of the indicators of specialized language courses that can have an important role in the development of its curriculum (Sarafini, 2015). It is a process that is done to determine the curriculum planning requirements. Needs analysis is especially important due to its role as a starting point or a guide for lesson planning, curriculum development, and selection of textbooks which is the first step in curriculum design and lesson planning. The results provide evidence on what the learners need to be able to perform effectively and appropriately which in turn leads to improvements in learners' performance and accomplishment. Considering this

evidence in relation to the current state of learners' language knowledge, as well as the practical possibilities and limitations of the field of education can help to determine and improve the content and method of specialized language courses (Basturkmen, 2010).

Brindley (1986) identified three types of needs: "language proficiency needs (the level of language knowledge that the learners need to achieve), psychological-humanistic needs (learners' psychological condition regarding the language learning process), and specific purpose needs (linguistic items that the learners need to master for vocational use)" (p. 66).

Several models are introduced for needs analysis. John Munby's Communicative Syllabus Design (1978) is the most well-known model of needs analysis. He identified a set of procedures for discovering target situation needs. He called this set of procedures the Communication Needs Processor. The Communication Needs Processor entails a group of questions that are related to key communication variables (topic, participants, medium, etc.) and are utilized to identify the target language needs of any group of learners. Tarone and Yule (1996) introduced a model for needs analysis. They believed that there are four levels in which learners would need to use the language: the global level, the rhetorical level, the grammatical-rhetorical level, and the grammatical level.

It should be mentioned that questionnaires, pilot student and staff questionnaires, interviews, tests, case studies, authentic data collection, participatory needs analysis collection, and consultation of qualified informants are the most commonly used techniques that have been proposed for conducting needs analysis (Richards, 2012; Tudor, 1996).

Some studies tried to investigate the needs of general and specialized language. For example, Liu et al. (2011) examined the general and specialized language needs of students in six Taiwanese universities and the results showed that students had different understandings of their perceptions of necessities, wants, and lacks in the different language skills taught in English for General Purposes and English for Specific/Academic Purposes courses. In another study, Evans and Green (2007) investigated the language problems of 152 medical science students and found out that general English courses are not enough to meet the students' English language needs. In Iran, Moslemi et al. (2011) investigated the language needs of graduate students in biology, psychology, physical education, accounting, and western philosophy and their findings showed that students do not have enough contact with English. They believe that teaching English in the Iranian education system needs to be reviewed and that students are not sufficiently exposed to specific English. In another study that is conducted in Iran, Dobakhti and Zohrabi (2018) studied the need for specialized English language teaching for carpet design students of Tabriz University of Arts. The results showed that the hours and number of units allocated to this course were not enough and students did not have enough knowledge.

The study of research literature showed that very few studies have been conducted to assess the need for the specialized language of student-teachers, especially in the field of elementary education at Farhangian University. As Farhangian University plays an essential role in pre-service teacher training, acquainting teacher-students with the specialized language is very important. Elementary education student-teachers, like students of other fields of study, are required to use English texts related to this field and attend international conferences and competitions during and after their studies. Furthermore, student-teachers need to be skillful in the selection and use of reference materials written in English so that they can answer their students' questions accurately in the future and help themselves improve their knowledge and work (Dobakhti & Zohrabi, 2018). Therefore, the present study was conducted to investigate the translation ability of elementary education student-teachers in two parts: elementary education textbooks and Persian academic text. Furthermore, the study aimed to identify the steps taken by students in the translation process

and the problems faced in this process. Hence, it aimed to identify the students' problems in translating specialized texts in education, the following research questions were formulated:

1. What are the common errors made by elementary education student-teachers in the translation of specialized English texts into Persian?

2. What are the common errors made by elementary education student-teachers in the translation of Persian texts into English?

3. What are the steps taken by the elementary education student-teachers in the translation process?

4. What are the major problems faced by the elementary education student-teachers in the translation process?

2. METHODOLOGY

The study aimed to examine translation problems with specialized English texts among elementary education student-teachers. Hutchinson and Waters (1987) emphasize the importance of differentiating target needs from learning needs. While target needs are what the learner needs to do in the target situation, learning needs are what the learner needs to do in order to learn.

The present study was designed to investigate the learning needs of the participants; therefore, the errors made by them were studied. The learners' errors show their underlying knowledge and the nature of the errors will influence the solution; therefore, this study investigated what sort of mistakes the student-teachers would make. Considering the purpose of this research, the content analysis was select to respond to the research questions. The data were collected from the translated texts and the occurrence of the errors was identified by using content analysis. To analyze, the errors of the translated texts were coded; then, the codes were categorized into code categories. Furthermore, the interviews were conducted to identify the major steps taken by the participants in the English into Persian translation process.

Participants

The target population covered all elementary education student-teachers of West Azerbaijan Farhangian University in Iran. The sample size consisted of 30 student-teachers of elementary education in West Azerbaijan province in Iran with an average age of 21 that were selected through simple random sampling. About 36% of the participants (N=11) were male and the rest (N=19, 64%) were female. The criteria that were considered for the participants include: studying at least four semesters at West Azerbaijan Farhangian University in Iran, passing the General English course at the Farhangian University, and not using Google Translator to translate the whole text or sentences. The participants were informed about the objectives of the study and informed consent was obtained.

Instruments

To address the main purpose of the current study which was to analyze the problems with translating specialized texts among student-teachers majoring in elementary education, the instrument included demographic questions and two texts in English and Persian. The first part consisted of the demographic questions (including gender, the experience of attending English language classes outside the university or school), using a dictionary for translation, and the duration of the translation process. The second part consisted of two texts that were provided to students to assess their language and translation ability. English text was a specialized text of 120 words from the book entitled "Curriculum and Instructional Methods for the Elementary and Middle School, 7th Edition" which consisted of 60 general words, 40 specialized words, and 16 complete sentences. Persian text was a piece of an abstract in the education field which contained 120 words.

For improving the construct validity of the study instruments, English text was selected from the approved textbook of this course, and Persian text was the abstract of the article published in a Scopus-indexed journal (Sage Open).

Furthermore, the semi-structured interviews were conducted. The interview contained three open-ended questions. These questions were used to indicate major steps taken by the participants in the English into Persian translation process: "(1) What steps did you take to translate the English text into Persian?" and major steps taken in Persian into English translation process: (2) "What steps did you take to translate Persian text into English"; and major problems faced in this process "What problems did you face in the translating process?". The data were collected qualitatively through cyberspace (web) within 7 working days and analyzed using frequencies, percentages, and averages.

3. RESULTS

Analysis of the demographic data showed that all participants have attended English courses outside the formal education system for at least 2 semesters. English to Persian translations were collected, a table was created, and a number was assigned to each participant in the table. The following steps have been taken for analyzing the translated texts:

- The errors were identified and labeled (Open coding);
- Connection between codes was identified; in other words, the codes were organized (Axial coding); and
- The codes were grouped into categories.
- After the above-mentioned steps, three categories were extracted:
- Vocabulary that consisted of two subcategories: general and specialized terms;
- Sentence structure that consisted of three subcategories: use of appropriate conjunctions, recognizing reduced adjective clauses, and tense recognition; and
- Comprehension included two subcategories: fluent translation and familiarity with academic terms.

Some of the identified errors were:
Example 1:
Source text: The core of the proposed theory
Translation:

- هسته نظریه پیشنهادی

Student's translation:

- هسته نظریه را پیشنهاد کرد

(Structure and comprehension problems)

Example 2:
Source text: The true 'window of opportunity' is fully used and strengthened to ensure long-term benefits
Translation:

- پنجره واقعی فرصت برای تضمین فواید دراز مدت، به طور کامل مورد استفاده قرار گرفته و تقویت
می‌شود

Student's translation:

- واقعیت برای اطمینان از سود بلندمدت استفاده می‌کند

(Vocabulary, structure, and comprehension problems)

Example 3:
Source text: In a recent study, the researchers designed an experiment in which some children were coached in an imaginative play
Translation:

- در یک مطالعه جدید، پژوهشگران آزمایشی را طراحی نمودند که در آن تعدادی از کودکان در یک بازی تخیلی آموزش دیدند.

Student's translation:

- در مطالعه اخیر، محققان یک آزمایش طراحی کردند که تعدادی بچه مربی یک بازی خیالی هستند.

(Structure problem)

Example 4:
Source text: In a recent study, the researchers designed an experiment in which some children were coached in an imaginative play
Translation:

- در یک مطالعه جدید، پژوهشگران آزمایشی را طراحی نمودند که در آن تعدادی از کودکان در یک بازی تخیلی آموزش دیدند.

Student's translation

- در مطالعات اخیر، جستجوگران یک آزمایش طراحی کردند که در آن بعضی از بچه‌ها بازی مصور را مربی‌گری می‌کردند.

(Vocabulary and structure problems)

Example 5:
Source text: The most important theory published in 1916
Translation:

- مهم‌ترین نظریه که در سال ۱۹۱۶ منتشر گردید

Student's translation:

- بیشتر انتشارات مهمی که در ۱۹۱۶ تولید شد

(Vocabulary, structure and comprehension problem)

Then, frequencies and percentages of the items chosen incorrectly or not translated at all were calculated and listed in Table 1. Finally, the period of time that each student had spent on translation was entered in the table. The total number of each subcategory (number of words, sentences, and terms) was calculated separately in order to get the percentage. Table 1 demonstrates the analysis of the English to Persian scripts according to identified categories and subcategories. In each section, the frequency and percentage of mistakes or the items that had not been translated were reported. The mean of mistakes in the specialized vocabulary subcategory was 21 and general vocabulary was 10.44, respectively. The mean of mistakes in the category of the structure was ($\bar{x} = 25.44$), in which sub-category of recognizing reduced adjective clauses was the highest ($\bar{x}=30/15$) and the subcategory of using appropriate conjunctions was the lowest ($\bar{x}=20/60$) mistakes. The mean of mistakes in comprehension category was 46.33. The average time required to translate a 120-word specialized text was 32.13 minutes, with a minimum of 15 minutes and a maximum of 65 minutes.

Table 1: Frequency, Percent, and Mean for the Mistake Categories of English to Persian Translation

Participant	Vocabulary		Structure			Comprehension		Duration min
	Specialized	General	Use of conjunctions	Adjective clause recognition	Tense recognition	Fluent translation	Academic terms	
1	F=3 P=9.09	F=1 P=1.9	F=2 P=12.5	F=1 P=6.2	F=4 P=25	F=0 P=0	F=1 P=100	35
2	F=2 P=6.06	F=3 P=5.7	F=2 P=12.5	F=0 P=0	F=4 P=25	F=3 P=18.7	F=0 P=0	65
3	F=12 P=36	F=12 P=23.07	F=2 P=12.5	F=1 P=6.2	F=4 P=25	F=5 P=31.2	F=0 P=0	35
4	F=2 P=6.06	F=4 P=7.6	F=2 P=12.5	F=4 P=25	F=3 P=18.7	F=1 P=6.2	F=0 P=0	25
5	F=4 P=11.11	F=2 P=3.8	F=1 P=6.2	F=3 P=18.7	F=3 P=18.7	F=10 P=62.5	F=0 P=0	40
6	F=12 P=36.36	F=4 P=7.6	F=5 P=31.2	F=8 P=50	F=10 P=62.5	F=4 P=25	F=0 P=0	25
7	F=3 P=9.09	F=1 P=1.9	F=1 P=6.2	F=1 P=6.2	F=2 P=12.5	F=1 P=6.2	F=1 P=100	35
8	F=2 P=6.06	F=1 P=1.9	F=2 P=12.5	F=4 P=25	F=2 P=12.5	F=1 P=6.2	F=0 P=0	45
9	F=2 P=6.06	F=2 P=3.8	F=2 P=12.5	F=4 P=25	F=1 P=6.2	F=0 P=0	F=0 P=0	35
10	F=4 P=12.12	F=2 P=3.8	F=2 P=12.5	F=7 P=43.7	F=3 P=18.7	F=4 P=25	F=0 P=0	40
11	F=3 P=9.09	F=5 P=9.6	F=3 P=18.7	F=3 P=18.7	F=1 P=6.2	F=8 P=50	F=1 P=100	38
12	F=4 P=12.12	F=2 P=3.8	F=2 P=12.5	F=0 P=0	F=1 P=6.2	F=0 P=0	F=0 P=0	25
13	F=1 P=3.03	F=0 P=0	F=1 P=6.2	F=0 P=0	F=0 P=0	F=0 P=0	F=0 P=0	30
14	F=2 P=6.06	F=1 P=1.9	F=2 P=12.5	F=1 P=6.2	F=2 P=12.5	F=2 P=12.5	F=1 P=100	45
15	F=0 P=0	F=0 P=0	F=5 P=31.2	F=2 P=12.5	F=6 P=37.5	F=1 P=6.2	F=1 P=100	15
16	F=12 P=36.3	F=0 P=0	F=1 P=6.2	F=1 P=6.2	F=1 P=6.2	F=0 P=0	F=1 P=100	40
17	F=12 P=36.3	F=4 P=12.12	F=3 P=18.7	F=4 P=25	F=3 P=18.7	F=1 P=6.2	F=1 P=100	15
18	F=3 P=9.09	F=0 P=0	F=2 P=12.5	F=3 P=18.7	F=3 P=18.7	F=1 P=6.2	F=1 P=100	20
19	F=14 P=42.4	F=9 P=17.3	F=6 P=37.5	F=9 P=56.2	F=4 P=25	F=4 P=25	F=1 P=100	55
20	F=1 P=3.03	F=0 P=0	F=0 P=0	F=0 P=0	F=1 P=6.2	F=0 P=0	F=1 P=100	25
21	F=1 P=3.03	F=1 P=1.9	F=1 P=6.2	F=2 P=12.5	F=1 P=6.2	F=0 P=0	F=1 P=100	50
22	F=0 P=0	F=0 P=0	F=1 P=6.2	F=1 P=6.2	F=1 P=6.2	F=0 P=0	F=1 P=100	40
23	F=1	F=0	F=2	F=3	F=2	F=3	F=1	40

Participant	Vocabulary		Structure			Comprehension		Duration min
	P=3.03	P=0	P=12.5	P=18.7	P=12.5	P=18.7	P=100	
24	F=26 P=78.78	F=27 P=51.9	F=10 P=62.5	F=15 P=93.77	F=15 P=93.7	F=11 P=68.7	F=1 P=100	20
25	F=0 P=0	F=0 P=0	F=0 P=0	F=2 P=12.5	F=1 P=6.2	F=10 P=62.5	F=1 P=100	30
26	F=17 P=51.51	F=20 P=38.4	F=8 P=50	F=11 P=68.7	F=10 P=62.5	F=9 P=56.2	F=1 P=100	15
27	F=26 P=78.78	F=25 P=48.07	F=15 P=93.7	F=15 P=93.7	F=14 P=87.5	F=11 P=68.7	F=1 P=100	18
28	F=17 P=51.51	F=12 P=23.07	F=6 P=37.5	F=12 P=75	F=7 P=43.7	F=9 P=56.2	F=1 P=100	20
29	F=16 P=48.48	F=9 P=17.3	F=5 P=31.2	F=14 P=87	F=7 P=43.7	F=15 P=93.7	F=1 P=100	18
30	F=15 P=45.45	F=14 P=26.9	F=7 P=43.7	F=14 P=87	F=6 P=37.5	F=11 P=68.7	F=1 P=100	25
	x̄=21.87	x̄=10.44	x̄= 20.60	x̄=30.15	x̄= 25.37	x̄= 26.01	x̄= 66.66	x̄= 32.13

The Persian text was part of the abstract of a research article that included 120 words and 10 complete sentences.

Translations were collected and a number was assigned to each participant. Unfortunately, ten participants stated that they were not able to translate the Persian text into English at all. The following categories were identified after taking the steps mentioned earlier:

- Vocabulary
- Structure and grammatical accuracy consisted of three subcategories: use of conjunctions and articles, tense recognition, and using parallel structures

Some of the identified errors were:
Example 1:
Source text:

- نقش‌های بسیاری بر آنها تحمیل شده است تا انتظارات دانش‌آموزان، والدین و اجتماع مدرسه را برآورده سازند

Translation: A lot of roles are imposed on them in order to meet the expectations of the students, parents, and school community.
Student's translation: a lot of <u>role</u> <u>impose</u> them to <u>supply</u> expectations of student, parents, and school <u>society</u>
(Vocabulary and structure problem)

Example 2:
Source text:

- خودکارآمدی و رضایت، دو متغیری هستند که تأثیر مهمی بر عملکرد معلمان دارند

Translation: Self-efficacy and satisfaction are two variables that have a remarkable impact on teachers' performance.
Student's translation: <u>Self-performance</u> and <u>acceptance</u> are two <u>variables</u> that have an important on <u>teacher's</u> performance.
(Vocabulary and structure problem)

Example 3:
Source text:

نتایج نشان دادند بین خودکارآمدی و رضایت شغلی ارتباط مثبت و معنی داری وجود دارد -

Translation: The results showed that there is a positive and significant relationship between self-efficacy and job satisfaction.
Student's translation: The results showed that between <u>shoghli's</u> self-efficacy and satisfaction <u>have</u> a positive.
(Vocabulary and structure problem)

Example 4:
Source text:

مشارکت کنندگان این مطالعه -

Translation: The participants of this study
Student's translation: <u>contributors</u> of this <u>work</u> ….
(Vocabulary and structure problem)

The results are depicted in Table 2. In each section, the frequency and percentage of incorrect or untranslated items were included. Table 2 illustrates that the mean of mistakes in the vocabulary category was approximately eight, probably due to the dictionary use. While in the structure and grammar category, the mean was about 43, in the subcategories of the use of conjunctions and articles ($\bar{x} = 42$), observing parallel structures ($\bar{x} = 44.51$) and tense recognition ($\bar{x} = 42.71$). Furthermore, the percentage of mistakes of each participant in the structure and vocabulary categories was very close to each other, indicating that the abilities in these two categories are related. Also, the average translation time of this text was about 46 minutes, which shows that the participants spent almost a lot of time translating 120 words.

Table 2: Frequency, Percent, and Mean for the Mistake Categories of Persian to English Translation

Participant	Vocabulary	Structure			Duration min
		Tense recognition	**Parallel structures**	**Using conjunctions and articles**	
1	F=5 P=3.8	F=2 P=20	F=3 P=27.27	F=3 P=27.27	50
2	-	-	-	-	-
3	F=16 P=12.3	F=9 P=90	F=10 p=90.9	F=1 P=9.09	30
4	F=3 P=2.3	F=2 P=20	F=1 P=9.09	F=1 P=9.09	30
5	F=5	F=3	F=4	F=4	45

Participant	Vocabulary	Structure			Duration min
	P=3.8	P=30	P=36.36	P=36.36	
6	F=14 P=10.7	F=5 P=50	F=8 P=72.7	F=4 P=36.3	40
7	-	-	-	-	-
8	F=7 P=5.3	F=2 P=20	F=9 P=81.8	F=9 P=81.8	70
9	F=3 P=2.3	F=1 P=10	F=2 P=18.1	F=0 P=0	40
10	F=3 P=2.3	F=1 P=10	F=3 P=27.2	F=3 P=27.2	70
11	-	-	-	-	-
12	F=12 P=9.2	F=5 P=50	F=4 P=36.3	F=3 P=27.27	40
13	F=18 P=13.8	F=7 P=70	F=8 P=72.7	F=5 P=45.4	34
14	F=1 P=0.7	F=2 P=20	F=0 P=0	F=1 P=9.09	50
15	-	-	-	-	-
16	F=8 P=6.1	F=4 P=40	F=4 P=36.3	F=3 P=27.27	100
17	F=4 P=3.07	F=3 P=30	F=2 P=18.1	F=3 P=27.27	35
18	F=8 P=6.1	F=3 P=30	F=5 P=45.4	F=4 P=36.3	-
19	F=40 P=30.7	F=9 P=90	F=11 P=100	F=10 P=90.9	60
20	F=5 P=3.84	F=4 P=40	F=3 P=27.27	F=4 P=36.36	40
21	-	-	-	-	-
22	F=5 P=3.84	F=4 P=40	F=5 P=45.4	F=3 P=27.27	40
23	-	-	-	-	-
24	F=33 P=25.3	F=8 P=80	F=11 P=100	F=11 P=100	50
25	F=7 P=5.3	F=4 P=40	F=5 P=45.4	F=3 P=27.27	55
26	F=19 P=14.6	F=6 P=60	F=10 P=90.9	F=11 P=100	20
27	-	-	-	-	-
28	-	-	-	-	-
29	-	-	-	-	-
30	-	-	-	-	-
	x̄= 8.229	x̄=42	x̄=44.51	x̄=42.71	x̄=45.95

Moreover, the interviews were conducted in order to identify the steps taken and the main problems they faced in the translation process. The participants were asked to list the steps they took in the translation process. 19 participants listed the following steps:

- Finding the definition of unfamiliar words
- Translating the title
- Putting the words together to make the sentences.

And 11 participants mentioned the following steps:

- Reading the whole sentence
- Finding the meaning of unfamiliar words
- Translating the title
- Putting the words together to make the sentences

The results showed that the participants did not read the whole text or whole paragraph to understand the main idea of the text which in turn caused the use of equivalents that were not suitable for the target language. Moreover, since they translated word for word, they were not able to observe the structural consistency of the text.

Second, the participants were asked to mention the problems they faced in the translation process. The most frequent answers were:

- There are no Persian equivalents for some English words.
- There are no English equivalents for some Persian words.
- I knew the meaning of the text, but wording is too difficult.
- I am not familiar with some grammatical structures.

4. DISCUSSION

English for specific purposes has become a viable and vigorous movement within the field of TEFL/TESL over the past three decades (Johns & Dudley-Evans, 1991). As a learner-centered approach, it mainly aims to fulfill the specific needs of target learners in order to satisfy either their professional or vocational demands (Ramírez, 2015). As pointed out by Mohan (1986) in content-based language courses, the target language is a medium of learning across the curriculum.

The present study was conducted to investigate the problems with Persian-English and English-Persian translation among student-teachers majoring in elementary education. The results of the English-to-Persian translation showed that the percentages of mistakes of each participant in the structure, comprehension, and vocabulary categories were very close to each other and this indicates that the ability in these three categories is interrelated. The results showed that the average of mistakes was higher in the specialized vocabulary subcategory. Also, the averages of mistakes in the subcategories of comprehension and structure were high, too. This indicates that the participants in the section of structure and comprehension of English are not capable enough. Similarly, the results of the Persian-to-English translation analysis showed that the percentages of mistakes of each participant in the structure and vocabulary categories were very close to each other and it shows that the abilities in these two categories are related. Moreover, the results showed that the average of mistakes in structure was very high which indicates that the participants are not familiar or are less familiar with the essential structural and grammatical points of English. The average translation time of this text was about 46 minutes which shows that the participants relatively spent a long time on translation.

It should be mentioned that the participants did well in the vocabulary category in comparison to the comprehension and structure categories. Additionally, Persian-to-English translation was very difficult for the students so some of the participants refused to translate it.

The analysis of the interviews indicated that the participants had problems with finding efficient equivalents for the Persian words and structures and the proper sequence of steps was not taken in

the translation process. Therefore, it is a good idea to teach basic reading strategies and translation strategies to the students.

The following steps are recommended to have a more efficient and comprehensible translation:

- Initial reading of the whole section to get the main idea
- Reading paragraph by paragraph to get the main idea
- Reading each paragraph
- Finding the meaning of unfamiliar words
- Translating sentence by sentence
- Reviewing the accuracy of each paragraph translation
- Refine translation wording
- In case of Persian into English translating, back translation is helpful.

It can be concluded that in order to meet the needs of the specialized language of student-teachers, the necessary changes should be made to the content and goals of the specialized language. Indeed, it can be claimed that the weakness of the specialized language course lies in the weakness of the general English.

5. IMPLICATION

Based on the results, the following recommendations are offered to improve student-teacher translation skills: first, writing is the most difficult skill among the four basic language skills because the learners should consider many elements including content, sentence structure, vocabulary, and punctuation. The results of the present study showed that students face more challenges in translating Persian to English; therefore, it is recommended that the basics of writing an article in English and writing each section of the article be taught in a specialized language course. In addition, the principles of writing in English, especially the structures such as describing, comparing, explaining and exemplifying be taught in specialized language courses.

Second, the teaching materials should cover the learning objectives mentioned in the specialized language curriculum and can be selected from texts written by English-speaking authors. These educational materials can be part of textbooks in English-speaking countries, part of authoritative English language resources, lesson plans, part of scientific articles published in prestigious journals, etc. Authenticity should be the main reason for selecting the learning materials. Authentic materials can increase the student's interest and curiosity in learning by considering that they have the real and valuable language input that they need for their current goals of learning and work field after graduation.

Third, grammatical functions, acquisition skills, terminology, and specific functions of discipline content are crucial parts of the ESP course (Jianjing, 2007). The results showed that student-teachers had higher mistakes in grammar, especially in recognizing the tenses, passive structures, and reduced adjective clauses. Therefore, these structures should be included in the general and specialized language courses.

There are some important limitations to this work. It should be mentioned that the sample was too small to make a safe generalization. Furthermore, this research was conducted at the West Azerbaijan Farhangian University; therefore, the results cannot be necessarily generalized to students in other universities. Consequently, future studies need to include samples from various universities to verify the authenticity of these results.

Conflict of Interest:

None.

References

Avesta, H., Imani, F., & Alavian, F. (2019). Content analysis of the tenth grade biology textbook from the perspective of being active and inactive based on Romi William's Method. *Research in Biology Education*, 1(1), 50–61. [In Persian]

Basturkmen, H. (2010). *Developing courses in English for specific purposes*. Palgrave Macmillan.

Bracaj, M. (2014). Teaching English for specific purposes and teacher training. *European Scientific Journal, ESJ,* 10(2), 40–49. https://doi.org/10.19044/esj.2014.v10n2p%p

Brindley, G. (1986). The second language curriculum: The role of needs analysis in adult ESL programme design. Cambridge University Press.

Brown, H. D. (2000). *Principles of language learning and teaching*. Longman.

Calis, E., & Dikilitaş, K. (2012). The use of translation in EFL classes as L2 learning practice. *Procedia - Social and Behavioral Sciences*, 46, 5079-5084. https://doi.org/10.1016/j.sbspro.2012.06.391

Chirobocea, O. (2018). Translation as language learning technique and the use of L1 in ESP classes. Learners' perceptions. *Analele Universitatii Ovidius Constanta*, 18(2), 221–227.

Dobakhti, L., & Zohrabi, M. (2018). ESP needs analysis of carpet students: The case of Tabriz Islamic Art University. *Journal of Foreign Language Research*, 2(8), 529–558. [In Persian]

Dudley-Evans, T. (2001). English for specific purposes. In R. Carter & D. Nunan (Eds.), *Teaching English to speakers of other languages* (pp. 131–136). Cambridge University Press.

Duff, A. (1989). *Translation*. Oxford University Press.

Evans, S., & Green, C. (2007). Why EAP is necessary: A survey of Hong Kong tertiary students. *Journal of English for Academic Purposes*, 6, 3–17. https://doi.org/10.1016/j.jeap.2006.11.005

Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second-language acquisition. *Canadian Journal of Psychology / Revue canadienne de psychologie*, 13(4), 266–272. https://doi.org/10.1037/h0083787

Gardner, R. C., & Lambert, W. E. (1972). *Attitudes and motivation in second-language learning*. Newbury House Publishers.

Ghaiyoomian, H., & Zarei, Gh. (2015). The effect of using translation on learning grammatical structures: A case study of Iranian high school students. *Research in English Language Teaching*, 3(1), 32–39.

Hyland, K. (2009). Specific purpose programs. In M. H. Long & C. J. Doughty (Eds.), *Handbook of language teaching* (pp. 201–217). Blackwell.

Hutchinson, T., & Waters, A. (1987). *English for specific purposes: A learning-centered approach*. Cambridge University Press.

Islamian, H., Saeedi Rezvani, M., & Fatehi, Y. (2013). Comparison of the effectiveness of group discussion and lecture teaching methods on students' learning and satisfaction with teaching in theology. *Research in Curriculum Planning*, 38(10), 13–23. [In Persian]

Jiajing, G. (2007). Designing an ESP course for Chinese University Students of Business. *Asian ESP Journal Online*, 3(1), 1–10.

Johns, A., & Dudley-Evans, T. (1991). English for specific purposes: International in scope, specific in purpose. *TESOL Quarterly*, 25(2), 297–314. https://doi.org/10.2307/3587465

Kavaliauskienë, G., & Kaminskienë, L. (2007). Translation as a learning tool in English for specific purposes. *Kalbotyra*, 57(3), 132–139.

Kavaliauskienė, G., & Kaminskienė, L. (2009). Proficiency in reading, writing and translation skills: ESP aspect. *Vertimo studijos*, 2(20), 171–184.

Kovács, G. (2018). The significance of developing reading skills in translator and language teacher training. *Education*, 5(3), 155–164. https://doi.org/10.18844/PROSOC.V5I3.3920

Liao, P. (2006). EFL learners' beliefs about and strategy use of translation in English learning. *RELC Journal*, 37(2), 191–215. https://doi.org/10.1177/0033688206067426

Liu, J., Chang, Y., Yang, F., & Sun, Y. (2011). Is what I need what I want? Reconceptualising college students' needs in English courses for general and specific/academic purposes. *Journal of English for Academic Purposes*, 10, 271–280. https://doi.org/10.1016/j.jeap.2011.09.002

Long, M. H. (2005). *Second language needs analysis*. Cambridge University Press.

Mažeikienė, V. (2019). Translation as a method in teaching ESP: An inductive thematic analysis of literature. *Journal of Teaching English for Specific and Academic Purposes*, 20, 513–523. https://doi.org/10.22190/JTESAP1803513M

Mauranen, A., Hynninen, N., & Ranta, E. (2016). English as the academic lingua franca. In K. Hyland & P. Shaw (Eds.), *The Routledge handbook of English for academic purposes* (pp. 44-55). Routledge.

Ministry of Education. (2013). *Education in the Islamic Republic of Iran*. Tehran.

Mohan, B. A. (1986). *Language and content*. Addison-Wesley.

Monfaredi, B. A., Soleiman Pour Omran, M., Abbasi Joshaghan, E., & Sang Sefidi, R. (2015). The role of Farhangian University in training thoughtful teacher with ICT oriented curriculum approach. *Journal of Training Thoughtful Teacher*, 1(1), 15–36. [In Persian]

Moslemi, F., Moinzadeh, A., & Dabaghi, A. (2011). ESP needs analysis of Iranian MA students: A case study of the University of Isfahan. *English Language Teaching*, 4(4), 121–129. https://doi.org/10.5539/elt.v4n4p121

Mostofi, A. (2018). The main reasons for failure in language learning among Iranian high school students. *Journal of Applied Linguistics and Language Research*, 5(6), 155–174.

Munby, J. (1978). *Communicative syllabus design*. Cambridge University Press.

Newmark, P. (1988). *Approaches to translation*. Prentice Hall.

Oxford, R., & Shearin, J. (1994). Language learning motivation: Expanding the theoretical framework. *Modern Language Journal*, 78(1), 12–28. https://doi.org/10.2307/329249

Perkins, C. (1985). Sensitizing advanced learners to problems of L1-L2 translation. In C. Tiford & A. E. Hieke (Eds.), *Translation in foreign language teaching and testing* (pp. 51-72). Narr.

Ramírez, C. G. (2015). English for specific purposes: Brief history and definitions. *Revista de Lenguas Modernas*, 23, 379–386.

Richards, J. K. (2012). *Curriculum development in language teaching*. Cambridge University Press.

Ross, N. J. (2000). Interference and intervention: Using translation in the EFL classroom. *Modern English Teacher*, 9(3), 61–66.

Santelises, L., Ortega, M. T. C., Margarita, C., Rojas-Fernández, A. G., Santelises, M. A., & del Valle, A. G. (2015). Keeping teachers up-to-date is essential to reach and maintain a high quality university education. *Multidisciplinary Journal for Education, Social and Technological Sciences*, 2(1), 1–14. https://doi.org/10.4995/muse.2015.2204.

Soleimani, H., & Heidarikia, H. (2017). The effect of translation as a noticing strategy on learning complex grammatical structures by EFL learners. *Applied Linguistics Research Journal*, 1(1), 1–13.

Teodorescu, A. (2010). Teaching English for Specific Purposes. *Petroleum - Gas University of Ploiesti Bulletin, Philology Series*, 62(2), 67–74.

Tudor, I. (1996). *Learner-centredness as language education*. Cambridge University Press.

West, R. (1994). Needs analysis in language teaching. *Language Teaching*, 27, 1–19. https://doi.org/10.1017/S0261444800007527

Wu, J. (2008). The analysis of cultural gaps in translation and solutions. *English Language Teaching*, 1(2), 123–127. https://doi.org/10.5539/elt.v1n2p123

Yarmohammadi, L. (2005). ESP in Iran from language planning perspective. In G. R. Kiany & M. Khayyamdar (Eds.), *Proceedings of the First National ESP/EAP Conference* (Vol. 2, pp. 2-20). SAMT.

Ziyaei, P., & Gharaei, Z. (2022). Translation as a learning tool in English for specific purposes: Toward a flexible framework for designing translation activities. *University Textbooks; Research and Writing*, 26(50), 43–65. https://doi.org/10.30487/rwab.2022.546947.1489

Two Peer Review Modes: Examining Students' Commenting Patterns, Revisions, and Attitudes in Developing Academic Writing Skills

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Abstract

This study examines how two different modes of face-to-face and mobile-mediated peer review (FFPR versus MMPR) affect the commenting patterns based on the International English Language Testing System (IELTS) assessment criteria and actual revisions among second language (L2) academic writers. Moreover, the students' attitudes toward peer review will be explored to demonstrate how they mediate between the comments received from their peers and subsequent revisions which might result in writing development. A 16-session IELTS academic writing course was held in a private university in Vancouver, Canada, and 72 English for Academic Purpose (EAP) students participated to exchange peer comments in the classroom and in a mobile application called *Telegram*. In order to conceptualize the peer comments in both groups, the IELTS academic writing assessment criteria were used. The results indicated that the MMPR groups generated significantly more comments with more revision-oriented responses and actual revisions. In addition, the MMPR groups' notes were mainly in terms of lexical resources and grammatical range and accuracy, whereas the FFPR groups centered their topics on task achievement and coherence and cohesion. Finally, based on the results, not only did both FFPR and MMPR students show positive attitudes toward peer review sessions at the end but their negative attitudes decreased. Generally, MMPR students showed more positive attitudes, yet the difference was not significant.

1. INTRODUCTION

Students experience a form of collaboration in peer review sessions. This can happen by providing constructive and positive comments on writing drafts and by exchanging the roles of an assessor and assessee (Jurkowski, 2018; Van den Bos & Tan, 2019). However, teachers might find designing and implementing successful peer feedback sessions challenging, and students might find the procedure less trustworthy (Neumann & Kopcha, 2019). The efficiency and prevalence of exchanging peer review are more demanding in some language proficiency exams such as the IELTS with life-changing results. The candidates might consider their peers' comments less

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efficient; instead, they count on their teachers' comments and incorporate them into their revisions. Nevertheless, there are some variables such as peer review training, quality of peer comments, mode of communication, and attitudes toward peer exchange which might affect the way students either participate in peer review sessions or incorporate such comments. The term *attitudes* refer to how students feel about their writing errors and their mindsets for correcting mistakes and making some revisions in their written works (Vo, 2022). This study considers these variables by running a training workshop, examining the comments the students generate, selecting a specific task in the IELTS academic writing test, grouping the students into two face-to-face and mobile-mediated environments of peer review (FFPR and MMPR), and exploring their attitudes. Although many previous studies have examined and compared the effectiveness of computer-mediated peer review (CMPR) with that of FFPR mode, the research on MMPR mode remains limited. Indeed, only a finite number of studies investigated the effectiveness of using mobile instant messaging (MIM) applications in developing candidates' writing development in the IELTS test.

2. THE THEORETICAL FRAMEWORK

Different theories exist in the literature regarding the use of peer review in second language settings such as process writing theory (Hayes & Flower, 1980), collaborative learning theory (Bruffee, 1984), and interactionist theory (Hyland & Hyland, 2006). These theories and perspectives emphasize the role of learners in creating knowledge and using various skills.

Process Writing Theory

As the name indicates, process-oriented writing contains several related drafting processes in order to come up with a meaningful and acceptable writing piece. Process writing theory considers writing as an ongoing, recursive process in which students engage in peer review to produce multiple drafts in a meaning-making activity (Hayes & Flower, 1980).

Collaborative Learning Theory

Collaborative learning theory emphasizes that learning, and even knowledge itself, is constructed socially through communication with knowledgeable peers in a community. It is through collaboration among peers that some kinds of knowledge can be acquired (Bruffee, 1984; Liu & Hansen, 2005).

Interactionist Theory

Interactionist theory suggests that language learning would be enhanced when we create opportunities for learners to negotiate meaning in group work (Hyland & Hyland, 2006). Negotiation is the key factor in this theory that assists L2 development by creating a more comprehensible input, drawing students' attention to their linguistic problems and errors, and highlighting the negative evidence (Gass, 2003).

3. LITERATURE REVIEW

Three Modes of Peer Review: Different Studies

The mode of peer review interaction can be broadly classified into three categories namely face-to-face, computer-mediated, and mobile-mediated. In FFPR, the process occurs when students give comments on peers' drafts by working in pairs or groups. One of the benefits of this practice is developing cognitive abilities among peers when articulating explanations on each other's draft. Moreover, Pritchard and Morrow (2017) believe that FFPR students build stronger social bonds when dealing with a non-threatening or less strict audience who has similar features as them. Recently, computer tools are being used in language education and particularly writing skills to promote peer review groups. Indeed, they are being used as alternatives to face-to-face peer

review. With the advent of smartphones, mobile learning has received significant attention in education recently by providing MIM services (Aghajani & Zoghipour, 2018; Andujar, 2016; Soria et al., 2020; Tang & Hew, 2017). Unlike CMPR with its asynchronous nature, MMPR provides both synchronous and asynchronous contexts for exchanging comments.

To date, several studies have compared the modes of peer review and reported valuable findings. These studies argue that the difference in the mode of interaction has affected the number and type of peer comments as well as students' attitudes (Ho, 2015; Rouhshad et al., 2016; Soria et al., 2020). For instance, a study by Rouhshad et al. (2016) examined how different collaborative writing modes (e.g., writing face-to-face versus online through the use of Google Docs) affected learners' interactions. Finding revealed that the FFPR students showed more collaborative patterns of interaction and reported more opportunities for negotiation outside the class compared to that of the CMPR group. In MMPR, several studies tried to compare students' performance in synchronous or asynchronous modes of communication. These studies used MIM applications in peer review environments to improve revision skills and writing development among English as a Second Language (ESL) students (Aghajani & Zoghipour, 2018; Andujar, 2016; Miller, 2016). The overall findings showed that students expressed positive attitudes toward both synchronous and asynchronous features of such apps, generated more comments which were revision-oriented, participated and negotiated actively by creating a community of practice, and produced more accurate sentences with fewer mistakes. For example, Andujar (2016) required students to post daily comments on the mobile phone application WhatsApp. The findings revealed that students not only improved their writing by producing fewer grammatical, lexical, and mechanical errors but also showed active collaboration and negotiation. Aghajani and Zoghipour (2018) used the mobile application Telegram for writing practice by conducting three forms of correction (self-correction, peer-correction, and teacher-correction). A prompt was sent to the students on Telegram, and they posted up to 60 words in their group. Better results and more satisfaction were reported in the groups of self and peer correction than in the teacher-correction one.

Attitudes toward Peer Review

Students' attitudes and perceptions toward peer review have been the focus of many research studies. The mode of peer review interaction affects their attitudes and determines their willingness to participate. Students might express positive attitudes towards the use of technology by referring to the importance of reduced stress due to the convenience and user-friendliness of online platforms (Bradley, 2014; Ciftci & Kocoglu, 2012). However, using technologies might have its own challenges that may demotivate students or cause interactional problems while discussing language-related concepts in the classroom (Guardado & Shi, 2007). Arnold et al. (2012) pointed out that students' positive perceptions show their willingness to use peer comments for language learning. Referring to the discussion of technology and attitude, Tang and Hew (2017) admire the use of students' and teachers' attitudes towards mobile applications in writing classes to help us show how such applications are supportive of developing language skills. On the other hand, students might report negative attitudes while using mobile applications which might be due to some technical challenges and their small screens (Winet, 2016). Studying students' perceptions will extend more knowledge on the affective dimensions of language learning.

Previous studies reported both positive and negative attitudes toward peer review. In a study by Li and Zhu (2013), students showed positive attitudes by reporting that their classmates' ideas provided them with some ideas for revision. The length of the essay is another criterion that might affect the attitudes. According to Chen et al. (2020), the length of an assignment is positively correlated to both the students' performance and attitudes toward peer feedback. Students perform better on short essays and welcome their peers' comments. Referring to MIM, Ngaleka, and Uys

(2013) pointed out that mobile learning affects students' attitudes. In their study, students used WhatsApp as a communication platform to exchange information about assignments and meetings. The study's findings demonstrated that students showed positive attitudes by using some interactive features of mobile applications such as audio chat. In contrast, Samaie et al. (2018) reported students' negative attitudes while using mobile applications for peer review. The participants of this study had different reasons for adopting negative attitudes such as the efficiency of face-to-face talk and the demanding features of mobile applications such as time, effort, and technical issues. Other perceptions of challenges related to electronic peer review are namely time management and synthesizing different opinions (Bikowski & Vithanage, 2016), attaining co-ownership agreements and having an unequal chance of participation (Arnold et al., 2012), and different language proficiency levels and writing ability (Lee, 2010).

4. THE STUDY

This study aims at examining students' peer review exchanges in two groups of face-to-face and mobile-mediated by referring to the type of comments generated, the incorporation rate of comments into revision, and students' attitudes toward peer commenting. Unlike the previous study by Liu and Sadler (2003) which classified peer comments based on the type, nature, and area of comments, the analytical scheme used in this study is the standard IELTS academic writing assessment criteria. The reason this study employed the IELTS assessment analytical scheme was to offer a more customized and related design for assessing students' comments. In addition, using these criteria increases students' awareness of the existing marking rubrics in this test. Although many previous studies have examined and compared the effectiveness of CMPR with that of FFPR mode, the research in MMPR mode remains limited. Indeed, only a finite number of studies investigated the effectiveness of using MIM applications in developing candidates' writing development in the IELTS test. To this end, this study attempts to answer the following three research questions:

RQ1: Do the MMPR and FFPR commenting modes result in a different distribution of peer comments based on IELTS assessment criteria?

RQ2: To what extent do students revise their IELTS task 1 samples based on comments made in both groups?

RQ3: What are the students' attitudes toward FFPR versus MMPR used in this study?

5. METHODS

Participants and Setting

The population of this study was limited to English for Academic Purposes (EAP) students studying at upper-intermediate levels in a private university located in Vancouver, (British Columbia, Canada). 113 students volunteered to participate in this study and took an online DIALANG test which was used to determine the homogeneity of the groups in terms of language proficiency level. Those students who obtained level B2 (n=91) were invited to attend the program. Out of 91, only 72 students attended the peer review training workshop. All of these students had submitted their IELTS overall band score of 6.0 as part of their admission. Therefore, the sample of this study comprised 47 female and 25 male students, coming from various nationalities and language groups within the age range of 22 to 34 with an average of 26.

Students were purposefully divided into the MMPR (*n* = 36) and FFPR group (*n* = 36). The participants were divided into three classes of FFPR each with 12 students and three groups of Telegram groups each with 12 members. An attempt was made to set the groups in a way that represents the variety of students in terms of gender and nationality. The sixteen sessions were scheduled for two 90-minute conference sessions per week. The researchers facilitated the peer

review groups by assisting the face-to-face classes at the campus and the mobile ones on Telegram. The same assignments, peer review guidance sheet, and logs were used for the two modes. Meanwhile, pseudonyms were used for the participants to protect their identity when analyzing the data in the MMPR groups.

Instruments

DIALANG Test

In order to measure the participants' level of language proficiency, the DIALANG test, which is an online language assessment test, was administered. This test is designed based on the standards of the Common European Framework of Reference (Alderson & Huhta, 2005) and measures general language proficiency based on a 6-level assessment rate ranging from A1 to C2. Levels A1 and C2 represent the lowest and the highest levels respectively.

Mobile Instant Messaging Platform Telegram

The second instrument was an instant messaging platform called Telegram (Version 1.5.12) for peer review meetings. This application provides the opportunity to create groups of users for collaboration in both asynchronous and synchronous modes.

The Questionnaire

Finally, a Likert scale questionnaire was adapted from previous studies (Ho & Savignon, 2007; Liu & Hansen, 2005; Shang, 2017;) to explore students' attitudes toward peer review. This questionnaire contained six sections with a total number of 33 items. Table 1 shows the outline and themes of the questionnaire.

Table 1: The Questionnaire's Outline and Themes (Total Questions = 33)

Section	Title	Question items	Groups
1	Biographical data		
2	Attitude toward peer review	1-11 (11)	Both FFPR & MMPR
3	Peer review in writing & IELTS academic writing	12-17 (6)	
4	Attitudes toward FFPR	18-21 (4)	Only FFPR
5	Attitudes toward CMPR	22-27 (6)	Only MMPR
6	Attitudes toward MMPR	28-33 (6)	Only MMPR

In order to check any potential gap in the quality of the questionnaire, a pilot study was conducted. As Mackey and Gass (2012) stated, a near-final version of the questionnaire needs to be tried out with 50-100 participants similar to the target population; therefore, the questionnaire was administered to 53 participants with similar characteristics to the target population to examine the reliability of the instruments. Moreover, 17 students (n = 17) with similar characteristics to the participants of the main study took the questionnaire to check the timing, wording, and format of the questionnaire items. The questionnaire was also checked for validity by three EAP instructors who were the colleagues of the researchers. Finally, the internal consistency reliability analysis run on the instrument after revision of the questionnaire in the pilot study yielded a Cronbach Alpha Coefficient of .86, suggesting a highly reliable scale according to Cohen et al.'s (2011) Alpha Coefficient guidelines set at 0.80–0.90 as highly reliable.

Data collection

As illustrated in Table 2, an eight-week (16 sessions) time plan was used for this study which included the peer review training (sessions 1-4) and the intervention (sessions 5-16). Sessions 1 to 4 were the peer review training workshop adapted from previous studies (Lam, 2010; Min, 2006).

Table 2: The time plan of the study

Sampling	Sessions 1-4	Sessions 5-16
Proficiency test N = 72	Peer Review Training Workshop	(Intervention) (Writing 3 samples) -Sample 1 (Sessions 5-8) -Sample 2 (Sessions 9-12) -Sample 3 (Sessions 13 to 16)

During the intervention (sessions 5-16), the students wrote three IELTS task 1 samples based on the Cambridge Academic IELTS series. All participants did brainstorming on the topic. Then, the FFPR group wrote their first drafts in the class and gave them to their instructor; whereas, the MMPR group typed and submitted them using Google Classroom. Students' first drafts were returned to them either in the class or in Telegram. The teacher required them to offer peer comments on the peer drafts by using the guidance sheet and peer review logs.

In Telegram, in order to control the flow of comments and ensure equal participation, each participant was requested to post at least one to three comments only in English with permission to share stickers. The researchers facilitated the activity as a member. Figure 1 shows a sample of peer review sessions among MMPR students. The peer review sessions in FFPR occurred when students presented their first drafts to their classmates and had 10 minutes to read and 10 minutes to fill out the logs. Moreover, the teacher asked the students to work with a different partner each time to encourage the richness of peer comments. Finally, the revision of drafts based on peer review logs was conducted in sessions 8, 12, and 16 of the intervention.

Figure 1: MMPR students' peer review exchange on Telegram

6. DATA ANALYSIS & RESULTS

As shown in Table 3, the comments were counted and categorized based on the four assessment criteria of IELTS academic writing task 1. The frequency of actual revisions made and revisions suggested on all three IELTS task 1 samples was calculated, accordingly. Two official IELTS examiners coded 15% of the comments; the inter-rater reliability was determined as .91.

Table 3: The analytical scheme for classifying peer comments adopted from the IELTS assessment criteria

Part B (IELTS Assessment Criteria)	
Task Achievement	You can highlight the points of highest and lowest proportion to give idea about the whole trend (e.g., "There is no paraphrasing of the title in the introduction")
Coherence & Cohesion	You can link each process with a few connectors, such as, first, second, next… (e.g., "The sentences in paragraph two are not linked properly")
Lexical Resources	You can also use more vocabulary rather than increase and decrease. (e.g., "More vocabulary can be used instead of rented and owned")
Grammatical Range & Accuracy	Don't put (The) before name of countries (e.g., "Start the new sentences with capital letter").

The IELTS assessment criteria and peer review distribution

The first set of results refers to research question 1: *Do the MMPR and FFPR commenting modes result in a different distribution of peer comments based on IELTS assessment criteria?* Students' comments were classified based on task achievement, coherence and cohesion, lexical resource, and grammatical range and accuracy. The findings report that students in FFPR and MMPR groups commented differently based on these criteria.

As demonstrated in Figure 2, task achievement was the most distributed type of comment given by both groups. The percentage of peer comments related to task achievement and coherence and cohesion type was larger in the FFPR group than that in the MMPR group. More specifically, the FFPR group provided 8% more comments related to task achievement, out of which 2% was related to coherence and cohesion. The percentage of comments, on the other hand, pertinent to the grammatical range and accuracy (28% versus 22%) and lexical resources (27% versus 24%) was higher in the MMPR group than that of the FFPR group.

Figure 3 shows that the MMPR group gave 523 comments related to the task achievement according to the IELTS rubric, out of which 393 (66%) were revision-oriented with 168 (43%) comments leading to the actual revisions. The FFPR group provided 372 task achievement comments, where 258 (69%) were revision-oriented with 106 (41%) resulting in actual revisions. The MMPR group produced 2% and 4% larger percentages of global and local actual revisions than the FFPR group, respectively.

As displayed in Figure 4, a larger number of coherence and cohesion comments were globally distributed in both groups. While the FFPR group produced 5% more global revision-oriented feedback and made actual revisions (35% versus 30%), the MMPR group made 22% more local actual revisions (49% versus 27%).

Figure 5 depicts that all lexical resource types of feedback given by the participants were local in nature. The MMPR group made an 8% larger percentage of revision-oriented feedback (87% versus 79%). Moreover, the MMPR group made 11% percentage more actual revisions than the FFPR group (40% versus 29%).
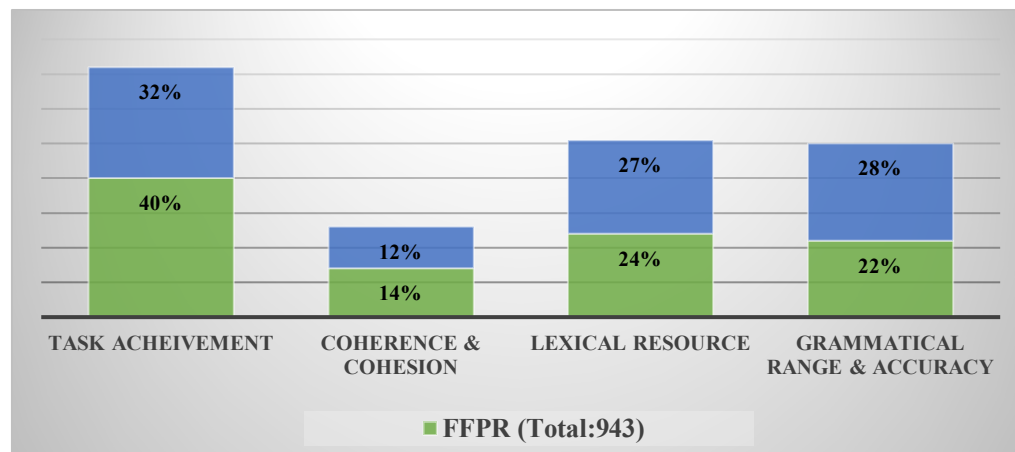
Figure 2: Peer Review Distribution Based on the IELTS Assessment Criteria
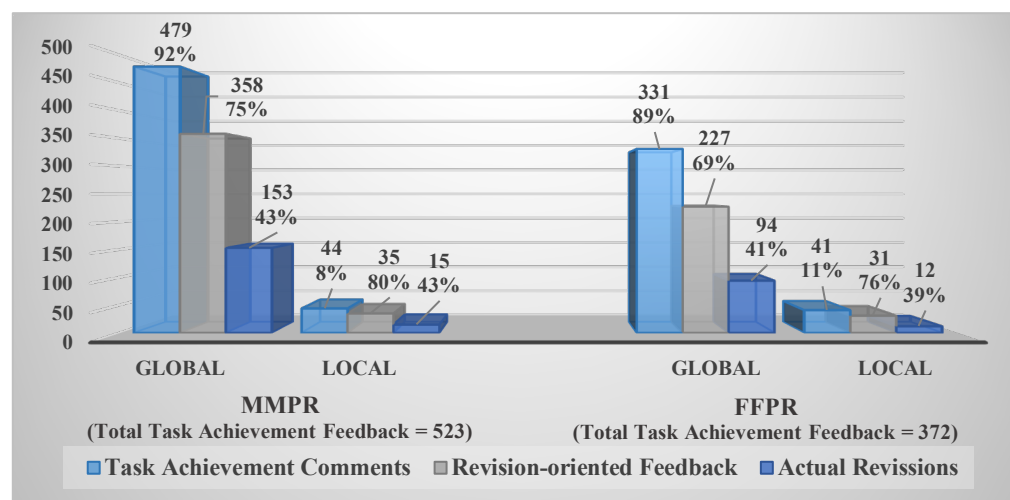
Figure 3: Task Achievement Comments and Actual Revisions by Group and Area
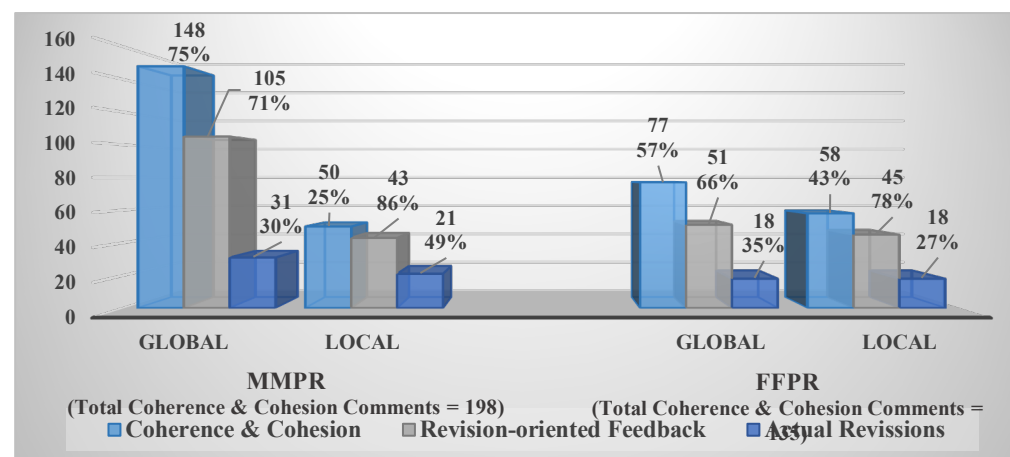
Figure 4: Coherence and Cohesion Comments and Actual Revisions by group and Area
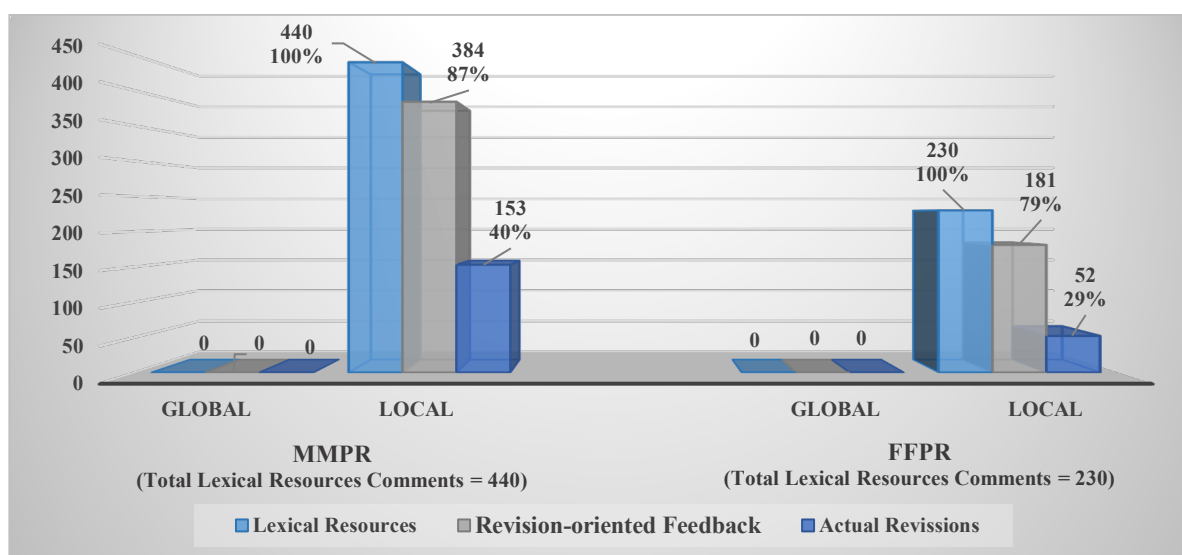
Figure 5: Lexical Resources Comments and Actual Revisions by group and Area

As Figure 6 presents, all comments related to the grammatical range and accuracy were also local in nature. While 90% of the comments given by the MMPR group were revision-oriented, 86% were revision-oriented in the FFPR group. The MMPR group also worked more on the comments in an attempt to revise more and made 43% of revisions while the FFPR group made 25% of actual revisions.
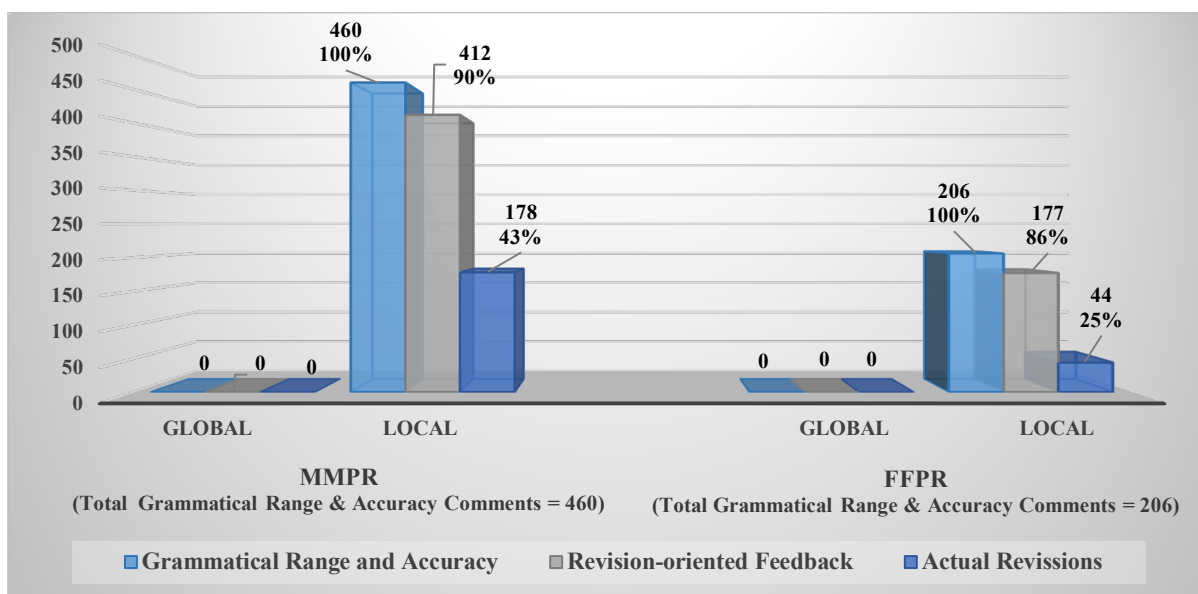
Figure 6: Grammatical Range and Accuracy Comments and Actual Revisions by Group and Area

Peer review adoption rate in FFPR and MMPR

The second phase of findings concerns the extent to which the students revised their writing samples based on the second research question (*To what extent do students revise their IELTS task 1 samples based on comments made in the MMPR and FFPR groups?*). As discussed earlier, most comments provided by both groups were revision-oriented in nature. This question examines these revision-oriented comments which led to the actual revision by considering the nature and type of comments. As revealed in Figure 7, the MMPR group indicated a larger percentage of revision-oriented comments than the FFPR group (82% versus 75%) with a higher percentage of actual revisions compared to the FFPR group (41% versus 33%). This result indicates that the students in Telegram incorporate more comments into their revisions.
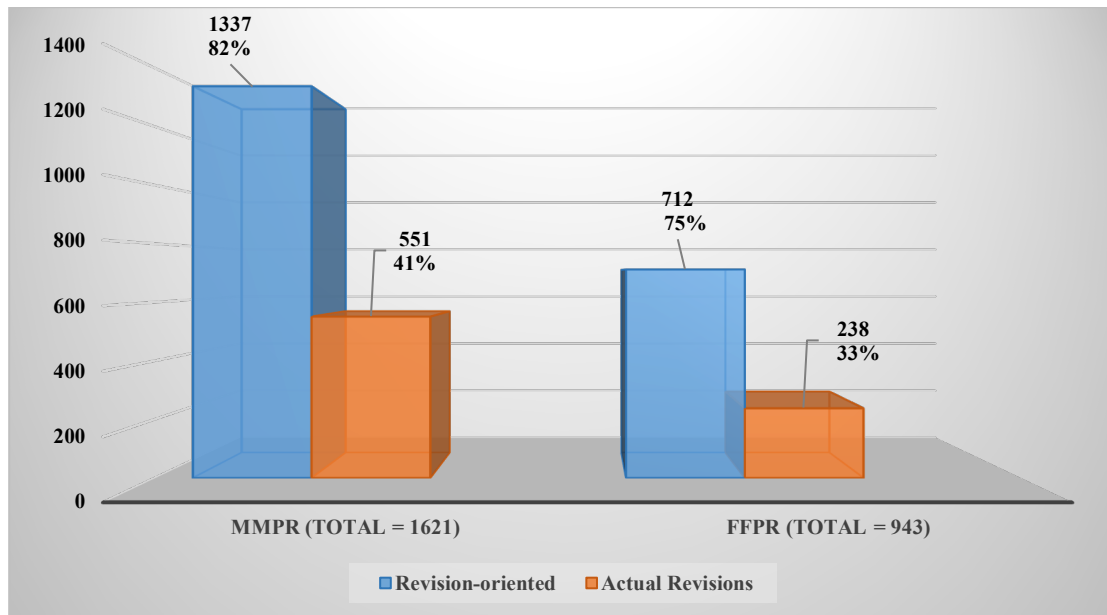
Figure 7: Comparing the total Comments, Revision-oriented Comments, and Actual Revisions

FFPR and MMPR groups attitudes toward Peer Review

This section of findings concerns the third research question: *What are students' attitudes toward FFPR versus MMPR used in this study?* The results are divided into several categories:

Positive attitudes toward peer review

A Mann-Whitney U Test was run on the scores in order to compare participants' positive attitudes in both groups. As shown in Table 5, the participants' positive attitude toward peer review in the MMPR (*Mean Rank* = 38.11) is more than the FFPR group (*Mean Rank* = 34.89). However, the analysis indicated no significant difference between the two groups, $U = 590$, $z = -.66$, $p = .509$, $r = .07$. Table 4 presents the results of the Mann-Whitney U test on participants' positive attitudes toward peer review in the FFPR and MMPR groups.

Table 4: Results of the Mann-Whitney U Test on Participants' Positive Attitude toward Peer Review

Group	n	Mean Rank	Sum of Ranks	Mdn	U	z	p (2-tailed)
MMPR	36	38.11	1372	6.00	590	-.661	.509
FFPR	36	34.89	1256	5.50			

Negative attitude toward peer review

Table 5 represents the means and standard deviations for the MMPR and FFPR groups in the pretest and posttest.

Table 5: Descriptive Statistics for the Participants' Negative Attitude toward Peer Review

Group	Pretest			Posttest			Mean Difference	
	n	M	SD	M	SD		M	SD
MMPR	36	10.25	1.71	9.75	1.42		-.50	1.27
FFPR	36	9.80	2.29	9.50	1.55		-.30	2.21

Table 6 displays equal variances that are not assumed based on the results of Levene's Test, $F(70) = 6.89$, $p < .05$. An independent-sample t-test was run on the data to compare the mean difference of MMPR and FFPR groups in their negative attitude toward peer review. The results revealed that the difference between pretest and posttest scores for the two groups was not significant, $t(70) = -.45$, $p = .650$, with a large effect size, Cohen's $d = .11$. Examining mean scores for both groups indicated that, as displayed in Table 6, the participants' negative attitude toward peer review in both groups has decreased. This decrease for the MMPR group ($M = 9.75$) was slightly more than the FFPR groups ($M = 9.50$) after treatment sessions. Table 3 displays the results of the independent-samples t-test analysis.

Table 6: Results of Independent Samples t-test for the Participants' Negative Attitude toward Peer Review

	Levene's Test for Equality of Variances		T-test for Equality of Means		
	F	p	t	df	P (2-tailed)
Equal variances are assumed	.6.89	.01	-.45	70	.650

Attitudes toward peer review in writing and IELTS academic writing

A Mann-Whitney U Test was performed to compare the participants' attitudes toward the use of peer review in writing and IELTS academic writing in both groups. As displayed in Table 8, the participants in the FFPR groups (*Mean Rank* = 38.72) revealed more gains in attitude than the MMPR groups (*Mean Rank* = 34.28) in the posttest. However, the analysis yielded no significant difference between the two groups, $U = 568$, $z = -.919$, $p = .358$, $r = .10$. Table 7 shows the results of the Mann-Whitney U test.

Table 7 Results of the Mann-Whitney U Test on Participants' Positive Attitude toward Peer Review

Group	n	Mean Rank	Sum of Ranks	Mdn	U	z	p (2-tailed)
MMPR	36	34.28	1234	5.00			
					68	-.919	.358
FFPR	36	38.72	1394	5.50			

Attitudes toward Face-to-Face peer review

FFPR attitude was examined through four items (18-21) solely in the FFPR groups. Table 8 demonstrated that 30.6 percent of 36 participants agreed that face-to-face peer review helped them improve their writing; 19.4 percent of 36 participants preferred to have a peer review on their writing with teacher review as well; 24.6 percent of 36 participants agreed that reviewing their classmates' writing gives them a different insight on the topic of the writing assignment; 29.2 percent of 36 participants agreed that face-to-face peer review should be used in writing classes. To summarize, all participants in the FFPR groups agreed to have face-to-face peer review in their writing.

Table 8: FFPR Attitude in the FFPR Groups (n =36)

Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
18. Face-to-face peer review helps me improve my writing.	0.00	0.00	6.9	30.6	12.5
19. I prefer to have a teacher review my writing, no peer review.	5.6	19.4	18.1	6.9	0
20. Reviewing my classmates' writing gives me a different insight into the topic of the writing assignment.	0.00	0.00	6.9	24.6	16.7
21. I think face-to-face peer review should be used in writing classes.	0.00	0.00	4.2	29.2	16.7

Attitudes toward Computer-Mediated peer review

Six items (22-27) aimed at assessing CMPR attitude in the MMPR groups only. Table 9 shows 27. 8 percent of 36 participants in the group neither agree nor disagree to do computer-mediated (using computers) peer review. In item 23, 22.2 percent of participants disagreed with CMPR being useless for revising writing drafts. Item 24 shows that 23.6 percent of participants neither agreed nor disagreed to give comments on their partner's writing draft in Word document (Microsoft Word). Item 25 shows that 25.0 percent of participants neither agreed nor disagreed to feel relaxed and comfortable when giving comments on the computer. In item 26, 27.8 percent of participants neither agreed nor disagreed to give comments on the Word document is easy. Finally, item 27 depicts that 27.8 percent of participants disagreed that giving comments on the Word document is confusing. Almost all participants' attitudes toward CMPR in the MMPR groups were neutral.

Table 9: CMPR Attitude in the MMPR Groups (n =36)

Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
22. I like to do computer-mediated (using computers) peer review.	0.00	4.2	27.8	13.9	4.2
23. Computer-mediated peer review is not useful for revising writing drafts.	11.1	22.2	16.7	0.00	0.00
24. I like to give comments on my partner's draft in Word document (Microsoft Word).	0.00	0.00	23.6	19.4	6.9
25. I feel relaxed and comfortable when giving comments on the computer.	0.00	4.2	25.0	15.3	5.6
26. Giving comments on the Word document is easy.	0.00	5.6	27.8	13.9	2.8
27. I feel that the comments inserted in the Word document are confusing.	18.1	27.8	4.2	0.00	0.00

Attitudes toward Mobile-Mediated peer review

The MMPR attitude was examined through six items (28-33) in Table 10. In item 28, 23.6 percent of participants agreed that they feel comfortable using their mobile devices to interact with their partners. In item 29, 20.8 percent of participants agreed to do peer review via a smartphone in writing classes. In item 30, 20.8 percent of participants neither agreed nor disagreed with peer review via a mobile application such as WhatsApp or Telegram can be timesaving. Item 31 shows that 23.6 percent of participants agreed that mobile-based peer review activities can increase interaction among classmates. In item 32, 27.8 percent of participants neither agreed nor disagreed that using mobile applications when providing comments on the writing assignment was easy. In item 33, 33.3 percent of participants agreed that peer commenting via a mobile application should be used in writing classes.

A paired-sample t-test was run on the scores to compare the participants' attitudes toward the CMPR and MMPR in the MMPR groups. As shown in Table 11, the analysis indicated that the participants had a more positive attitude toward MMPR ($M = 22.61$) than CMPR ($M = 17.58$). The mean difference (-5.02) was significant, $t(35) = -12.98$, $p < .05$.

Table 10 MMPR Students' Attitudes Toward Using Mobile-Mediated Peer Review (n =36)

Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
28. I feel comfortable using my mobile device or applications to interact with my partner.	0.00	1.4	13.9	23.6	11.1
29. I like to do peer review via a smartphone in writing classes.	0.00	0.00	12.5	20.8	16.7
30. Peer review via a mobile application such as WhatsApp or Telegram can be time-saving.	0.00	15.3	20.8	13.9	0.00
31. Mobile-mediated peer review activities can increase interaction among classmates.	0.00	0.00	13.9	23.6	12.5
32. It is easy to use mobile applications (apps) when providing feedback on the writing assignment.	0.00	1.4	27.8	16.7	4.2
33. I think peer review via a mobile application should be used in writing classes.	0.00	0.00	2.8	33.3	13.9

Table 11: Results of Paired-samples T-test for CMPR and MMPR Attitude

	n	M	SD	t	df	p (2-tailed)
CMPR & MMPR	36	-5.02	2.32	-12.98	35	.000*

7. DISCUSSION

The results related to research question 1 can be discussed in three aspects: the frequency and distribution of comments, the number of revision-oriented comments, and the number of actual revisions. Task achievement and lexical resources were among the commonly used comments the FFPR group shared in the classroom, whereas the MMPR focused more on task achievement and grammatical range and accuracy. Surprisingly, the FFPR group made more comments on task achievement than the MMPR group. The possible reasons might be that the FFPR group shared more global comments due to the face-to-face nature of communication, while the MMPR group tried to be more specific when commenting in a non-verbal situation. Although it is commonly believed that task achievement and coherence and cohesion target the global area of feedback, they might refer to local areas such as requiring the student to support their sentences with appropriate and accurate data or using linking devices and pronouns. In contrast, lexical resources and grammatical range and accuracy deal with local areas of feedback. Finally, the least generated comments based on the IELTS criteria were coherence and cohesion comments for both groups. This lack of interest might be because they focused on local aspects in both groups and neglected some global features such as text organization and sense of progression.

By referring to the percentage of revision-oriented comments in each IELTS assessment criteria, the findings show that most comments in lexical resource and grammatical range and accuracy criteria were revision-oriented. This is not a surprise because these two criteria entirely refer to local aspects of writing. In other words, no comments were made in the global area of

these two criteria. One reason could be that students followed a detailed guidance sheet that addressed numerous aspects of IELTS task 1 writing. Moreover, the IELTS assessment criteria have plenty of sub-categories for each criterion which address non-revision features and positive feedback. Regarding the actual revisions, the rate of revisions made by students based on task achievement and coherence and cohesion comments were almost similar. Nevertheless, the MMPR students made more revisions in lexical resources and grammatical range and accuracy comments compared to FFPR. One likely cause is that more local revision-oriented comments were made in MMPR groups, and that increased the number of revisions.

The findings related to question 2 revealed that the percentage of revision-oriented comments and the percentage of actual revisions made by MMPR students were larger than FFPR students. Indeed, most actual revisions made in MMPR were local. Similarly, Chang (2012) and Ho (2015) found that not only technology-mediated peer review groups made significantly more comments than the traditional groups but their comments were more revision-oriented and led to more actual revisions. Although the number of revisions in MMPR groups was more than in FFPR groups, the adoption rate percentage of 41% is not satisfactory. These findings seem to be consistent with other research which found almost a similar adoption rate of 48% (Liou & Peng, 2009) and 47% (Liu & Sadler, 2003). The reason for poor adoption rate in Liu and Sadler's (2003) study might be that the researchers used the mobile application *MOO* for online chat, yet they required students to exchange their electronic drafts via email first; therefore, they could not see their peers' drafts and their chat dialogues simultaneously. However, the results contradict Min (2006) who reported a high adoption rate of 90%.

Regarding question 3, the findings revealed that not only did both FFPR and MMPR students show positive attitudes toward review sessions at the end but their negative attitudes decreased. Generally, MMPR students showed more positive attitudes, yet the difference was not significant. These results are consistent with those of other studies which suggest that the mode of peer review interaction affects students' attitudes, and students will show more positivity when technology is used due to its convenience (Bradley, 2014; Ciftci & Kocoglu, 2012; Elola & Oskoz, 2010; Liou & Peng 2009). Increased positive attitudes in both groups do not corroborate these earlier findings which reported technologies cause distractions and demotivate students (Choi, 2007; Guardado & Shi, 2007). A possible explanation for this might be that these studies had been conducted several years ago when students still were not introduced to easy-to-use computer software and mobile applications.

The positive results in the MMPR group might be due to the positive perception of team working and community in online groups (Li & Kim, 2016). Finally, the positive attitudes in both groups partly could affect their revision skills mainly in terms of coherence and cohesion, and coherence and grammatical range and accuracy because research shows that positive attitudes improve vocabulary and grammar (Ducate et al., 2011). The students reported gains in attitude toward peer review effect in developing their writing and IELTS writing skills. Surprisingly, FFPR students revealed more gains than MMPR students although the difference was not significant. The results are not in line with some of those previous studies which claimed that there is no relation between positive attitude and writing development (Kaufman & Schunn, 2011; Strijbos et al., 2010). However, the findings are in agreement with other studies that directly associate writing development with students' perception and willingness to participate (Andujar, 2016; Van der Pol, et al., 2008).

The results of this study suggest that almost all FFPR students adopted positive attitudes toward FFPR sessions and their effects on students' writing skills. Referring MMPR students, their attitudes toward CMPR were neutral; however, they showed agreement with the use of mobile

applications. Additionally, comparing CMPR with MMPR, students showed great interest in using mobile applications for future peer review sessions. The results are in accord with recent studies indicating that mobile applications in both synchronous and asynchronous modes are helpful for peer review practice and develop students' writing skills (Aghajani & Zoghipour, 2018; Andujar, 2016; Miller, 2016; Tang & Hew, 2017).

8. CONCLUSION

The use of mobile communication services known as MIM has gained considerable attention in the field of language learning in recent years. Yet, to date, only a few comprehensive studies have investigated how MIM applications can be effective in facilitating peer review and improving students' revision skills. The comparison between face-to-face and mobile-mediated modes of peer review requires some considerations: The findings confirmed that the MMPR groups produced a larger number of comments overall with a higher percentage of revision-oriented which resulted in a larger number of revisions. Therefore, it can be concluded that using mobile applications in peer review sessions could develop academic writing skills and is worthy of further exploration. Nevertheless, FFPR has its own advantages. The peer review will be more influential when combined with either face-to-face or asynchronous modes of communication which encourages students to generate more focused and deliberate comments. In order to increase the effectiveness and efficiency of peer review, writing teachers should incorporate MMPR with face-to-face mode by considering some factors such as students' familiarity with MIM applications, the usability of such applications, the assessment procedures, and impact on students' revision process. This study revealed that students' perception of the importance of peer review affects their participation and engagement in the review sessions. As students' attitudes and perceptions are linked to their classroom participation and their willingness to revise their writing drafts, increasing their awareness, praising their endeavors, and encouraging them will make them perceive the peer review practice more worthwhile. In addition, well-organized training sessions are required to familiarize students with the procedures of peer review, new technologies, and information and communication technology (ICT) skills. Finally, we hope that the findings of this investigation promote further research among other scholars who are interested in using MIM for language teaching and learning, specifically for a second language writing course. Although future studies might use more state-of-the-art technologies to enhance various aspects of language learning, the emphasis should be put on enhancing the quality of education. In other words, pedagogy should drive the technology, not vice versa (Burston, 2015).

9. LIMITATIONS, IMPLICATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

The small size of 72 participants and the limited number of three writing tasks are among the limitations of this study which will influence the reliability; therefore, the results could not be generalized outside the scope of this study. In addition, there was no inter-group and inter-assignment analysis to better understand the differences between the groups and students' performance variation. Moreover, the close-ended nature of the questionnaire could not thoroughly examine students' attitudes and the reasons for expressing their reluctance or negative attitudes. Implementing other qualitative measurements such as interviews could enhance the quality of the data.

The pedagogical implications of this study could be useful for language teachers, students, and education professionals. First, MMPR may assist both teachers and students to experience a collaborative writing environment through both the synchronous and asynchronous nature of such applications. For example, writing teachers can begin encouraging students to produce short pieces

of writing and extend the length as the course proceeds. Second, L2 writing teachers are suggested to combine FFPR with MMPR. Students might be more motivated and less anxious when these two modes are combined. In order to achieve this aim, sufficient training is needed to get writing teachers familiar with the features and demands of both environments. Finally, curriculum designers can benefit from the chain of practices conducted in this study such as training workshops, assigning writing tasks, managing the mobile groups, collecting their drafts, and assessing their samples.

More future studies can be conducted as an improvement or continuation of this study. First, in order to enhance the generalizability of the findings, more participants and extensive writing assignments are needed for analysis. Also, more efforts are needed to measure the use of MIM applications for writing development on a long-term basis. Longitudinal and case studies might reveal different learning processes and revision patterns in writing classes. Second, future research can examine the use of MMPR in various educational contexts, language exams, language skills, and subjects. We know little about other educational contexts such as school settings as well as university levels such as master's and doctoral students' academic writing contexts. Meanwhile, the use of mobile applications can be used in other international exams such as TOEFL, SAT, or GRE. Third, future research could explore teachers' perceptions of the usefulness and value of MMPR by measuring some factors such as their readiness, attitudes, beliefs, and competence.

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References

Aghajani, M., & Zoghipour, M. (2018). The comparative effect of online self-correction, peer-correction, and teacher correction in descriptive writing tasks on intermediate EFL learners' grammar knowledge. *International Journal of Applied Linguistics & English Literature*, 7(3), 14–22. https://doi.org/10.7575/aiac.ijalel.v.7n.3p.14.

Alderson, J. C., & Huhta, A. (2005). The development of a suite of computer-based diagnostic tests based on the Common European Framework. *Language Testing*, 22, 301–320. https://doi.org/10.1191/0265532205lt310oa

Andujar, A. (2016). Benefits of mobile instant messaging to develop ESL writing. *System*, 62, 63–76. https://doi.org/10.1016/j.system.2016.07.004

Arnold, N., Ducate, L., & Kost, C. (2012). Collaboration or cooperation? Analyzing group dynamics and revision process in wikis. *CALICO Journal*, 29(3), 431–448. https://doi.org/10.11139/cj.29.3.431-448

Bikowski, D., & Vithanage, R. (2016). Effects of web-based collaborative writing on individual L2 writing development. *Language Learning & Technology*, 20, 79–99. http://dx.doi.org/10125/44457

Bradley, L. (2014). Peer-reviewing in an intercultural wiki environment: Student interaction and reflections. *Computers and Composition*, 34, 80–95. https://doi.org/10.1016/j.compcom.2014.09.008

Bruffee, K. A. (1984). Collaborative learning and the conversation of 'mankind'. *College English*, 46, 635–652. https://doi.org/10.2307/376924

Burston, J. (2015). Twenty years of MALL project implementation: A meta-analysis of learning outcomes. *ReCALL*, 27, 4–20. https://doi.org/10.1017/S0958344014000159

Chang, C. F. (2012). Peer review via three modes in an EFL writing course. *Computers and Composition*, 29, 63–78. https://doi.org/10.1016/j.compcom.2012.01.001

Chen, H. C., Pisoni, G., & Gijlers, H. (2020). An exploratory study into graduate students' attitudes towards peer assessment. In *International Conference on Interactive Collaborative Learning* (pp. 310-325). Springer, Cham. https://doi.org/10.1007/978-3-030-68198-2_30.

Choi, J. W. C. (2007). *The role of online collaboration in promoting ESL writing* (Unpublished doctoral dissertation). University of Leicester, United Kingdom.

Ciftci, H., & Kocoglu, Z. (2012). Effects of peer e-feedback on Turkish EFL students' writing performance. *Journal of Educational Computing Research*, 46(1), 61–84. https://doi.org/10.2190/EC.46.1.c

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). Routledge Falmer.

Ducate, L., Anderson, L., & Moreno, N. (2011). Wading through the world of wikis: An analysis of three wiki projects. *Foreign Language Annals*, 44(3), 495–524. https://doi.org/10.1111/j.1944-9720.2011.01144.x.

Elola, I., & Oskoz, A. (2010). Collaborative writing: Fostering foreign language and writing conventions development. *Language Learning and Technology*, 14(3), 51–71. http://dx.doi.org/10125/44226

Gass, S. (2003). Input and interaction. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 224–255). Blackwell.

Guardado, M., & Shi, L. (2007). ESL students' experiences of online peer feedback. *Computers and Composition*, 24(4), 443–461. https://doi.org/10.1016/j.compcom.2007.03.002

Hayes, J. R., & Flower, L. S. (1980). Identifying the organization of writing processes. In L. Gregg & E. Steinberg (Eds.), *Cognitive processes in writing: An interdisciplinary approach* (pp. 3–30). Erlbaum.

Ho, M. C. (2015). The effects of face-to-face and computer-mediated peer review on EFL writers' comments and revisions. *Australasian Journal of Educational Technology*, 31(1), 1–15. https://doi.org/10.14742/ajet.495

Ho, M. C., & Savignon, S. J. (2007). Face-to-face and computer-mediated peer review in EFL writing. *CALICO Journal*, 24(2), 269–290. https://doi.org/10.1558/cj.v24i2.269-290

Hyland, K., & Hyland, F. (2006). *Feedback in second language writing: Contexts and issues*. Cambridge University Press.

Jurkowski, S. (2018). Do question prompts support students in working with peer feedback? *International Journal of Educational Research*, 92, 1–9. https://doi.org/10.1016/j.ijer.2018.09.004

Kaufman, J. H., & Schunn, V. (2011). Students' perceptions about peer assessment for writing: their origin and impact on revision work. *Instructional Science*, 39(3), 387–406. https://doi.org/10.1007/s11251-010-9133-6

Lam, R. (2010). A peer review training workshop: Coaching students to give and evaluate peer feedback. *TESL Canada Journal*, 27(2), 114–127. https://doi.org/10.18806/tesl.v27i2.1052.

Lee, L. (2010). Exploring wiki-mediated collaborative writing: A case study in an elementary Spanish course. *CALICO Journal*, 27(2), 260–276. https://doi.org/10.11139/cj.27.2.260-276

Li, M., & Kim, D. (2016). One wiki, two groups: Dynamic interactions across ESL collaborative writing tasks. *Journal of Second Language Writing*, 31, 25–42. https://doi.org/10.1016/j.jslw.2016.01.002.

Li, M., & Zhu, W. (2013). Patterns of computer-mediated interaction in small writing groups using wikis. *Computer Assisted Language Learning*, 26(1), 62–81. https://doi.org/10.1080/09588221.2011.631142

Liou, H. C., & Peng, Z. Y. (2009). Training effects on computer-mediated peer review. *System*, 37, 514–525. https://doi.org/10.1016/j.system.2009.01.005

Liu, J., & Hansen, J. (2005). *Peer response in second language writing classrooms*. University of Michigan Press.

Liu, J., & Sadler, R.W. (2003). The effect and affect of peer review in electronic versus traditional modes on L2 writing. *Journal of English for Academic Purposes*, 2, 193–227. https://doi.org/10.1016/S1475-1585(03)00025-0(03

Mackey, A., & Gass, S. M. (Eds.). (2012). *Research methods in second language acquisition: A practical guide*. Wiley Blackwell Publication.

Miller, L. (2016). Collaborative script writing for a digital media project. *Writing and Pedagogy*, 8(1), 215–228. https://doi.org/10.1558/wap.v8i1.27593.

Min, H. T. (2006). The effects of trained peer review on EFL students' revision types and writing quality. *Journal of Second Language Writing*, 15(2), 118–141. https://doi.org/10.1016/j.jslw.2006.01.003

Neumann, K. L., & Kopcha, T. J. (2019). Using Google Docs for peer-then-teacher review on middle school students' writing. *Computers and Composition*, 54, 102524. https://doi.org/10.1016/j.compcom.2019.102524

Ngaleka, A., & Uys, W. (2013). M-learning with WhatsApp: A conversation analysis. In *Proceedings of the International Conference on e-Learning*. Academic Conferences International Limited. http://search.proquest.com/openview/d5bebb577d879e5cfeec5c635e0a8924/1?pq-origsite=gscholar

Pritchard, R. J., & Morrow, D. (2017). Comparison of online and face-to-face peer review of writing. *Computers and Composition*, 46, 87–103. https://doi.org/10.1016/j.compcom.2017.09.006.

Rouhshad, A., Wigglesworth, G., & Storch, N. (2016). The nature of negotiations in face-to-face versus computer-mediated communication in pair interactions. *Language Teaching Research*, 20(4), 514–534. https://doi.org/10.1177/1362168815584455

Samaie, M., Mansouri Nejad, A., & Qaracholloo, M. (2018). An inquiry into the efficiency of WhatsApp for self- and peer-assessments of oral language proficiency. *British Journal of Educational Technology*, 49(1), 111–126. https://doi.org/10.1111/bjet.12519

Shang, H. (2017). An exploration of asynchronous and synchronous feedback modes in EFL writing. *Journal of Computing in Higher Education*, 29(3), 496–513. https://doi.org/10.1007/s12528-017-9154-0

Soria, S., Gutiérrez-Colón, M., & Frumuselu, A. D. (2020). Feedback and mobile instant messaging: Using WhatsApp as a feedback tool in EFL. *International Journal of Instruction*, 13(1), 797-812. https://doi.org/10.29333/iji.2020.13151a

Strijbos, J. W., Narciss, S., & Dünnebier, K. (2010). Peer feedback content and sender's competence level in academic writing revision tasks: Are they critical for feedback perceptions and efficiency? *Learning and Instruction*, 20(4), 291–303. https://doi.org/10.1016/j.learninstruc.2009.08.008.

Tang, Y., & Hew, K. F. (2017). Is mobile instant messaging (MIM) useful in education? Examining its technological, pedagogical, and social affordances. *Educational Research Review*, 21, 85–104. https://doi.org/10.1016/j.edurev.2017.05.001.

van den Bos, A. H., & Tan, E. (2019). Effects of anonymity on online peer review in second-language writing. *Computers and Education*, 142, 103638. https://doi.org/10.1016/j.compedu.2019.103638

Van der Pol, J., Van den Berg, B. A. M., Admiraal, W. F., & Simons, P. R. J. (2008). The nature, reception, and use of online peer feedback in higher education. *Computers and Education*, 51(4), 1804–1817. https://doi.org/10.1016/j.compedu.2008.06.001

Vo, T. T. M. (2022). EFL students' attitudes towards teacher correction and peer correction in writing skills. *International Journal of Language Instruction*, 1(1), 155-173. https://doi.org/10.54855/ijli.221113

Winet, D. (2016). Mobile instant messaging in the ESL writing class. *The Electronic Journal for English as a Second Language*, 20(3), 1–6.

Language Selection in Bilingual Speakers: A Multidisciplinary Approach

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Abstract

Language selection in bilinguals is a multidimensional phenomenon. This paper aimed to adopt a multidisciplinary approach to investigate language selection in bilingual speech production. The present paper first reviews the sociolinguistic aspects of bilingual language choice, moves on to investigate the notion of language choice presented in the models of bilingual language production and comprehension, views different factors through a single window into the bilingual language selection, and finally examines language choice in dialogue. In this study, I examined neurolinguistics, psycholinguistic, and sociolinguistic models of bilingual language production in order to provide a better understanding of bilingual language selection. When language choice is formulated, information about language is included in the preverbal message at the conceptual level in order to channel the preverbal message into the intended language. This study suggests that as bilingual language selection is highly affected by the context, language tag specification is formulated outside the language system and the output is sent to the conceptualizer level where it is included in the preverbal message. Language cues may have various values depending on the linguistic context. In a bilingual mode or a dense (heavy) switch context, the value of language cues is not very high. I propose that information about language choice at the higher level of processing, language membership information, and language nodes at the lower level of processing construct a language information network that regulates bilingual language processing. Language selection in dialogue settings is also discussed. The present study suggests that bilinguals may not formulate a language choice for every utterance they produce during a course of dialogue or when there is a language history between the two participants.

1. INTRODUCTION

Both bilinguals and monolinguals map the intentions to speak onto language at the conceptual level (Carota et al., 2009). While both groups of speakers consider the same choices (e.g., dialectical or stylistic choices), only bilingual speakers decide whether the utterance will be in language A or unilingual in language B (see La Heij, 2005). De Houwer (2006) assumes that for

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every utterance a bilingual speaker produces, he or she decides whether it will be unilingual in language A, unilingual in language B, or mixed, in which elements from the two languages are combined. Thus, as Kroll et al. (2006) state, at least one critical respect that differentiates bilingual planning for speaking from monolingual planning is that a bilingual speaker must select the language of production. In fact, only a bilingual speaker needs to determine which language is most appropriate for the conversation (Paradis, 2004).

Bilingual speakers make language choices based on several factors such as *with whom*, *about what*, and *where* and *when* a speech act occurs (Bhatia & Ritchie, 2004). A huge body of research (e.g., Giles & Johnson, 1981; Gumperz & Hymes, 1972) demonstrates that language choice in bilingual speakers is not a neutral means of communication (Sachdev et al., 2013) and has an important role in bilingual verbal behaviour. According to Wei (2013) through language choice speakers "maintain and change ethnic-group boundaries and personal relationships, and construct and define self and other" (p. 43). For Walters (2005) language choice is a significant determinant of social identity. The researcher assumes that bilingual language production consists of various choices among different social identity options, participants, settings, topics, and discourse patterns, all of which highly depend on language choice. For many bilinguals, intimate settings such as home, neighbourhood, or familiar people like close friends most probably activate the dominant or the primary language, while less familiar contacts activate the other language (Walters, 2005).

Children as young as one year and three months old who grow up based on the one person one language input strategy, have been reported to use language A exclusively with monolinguals of language A, and language B with monolinguals of language B (Sinka & Schelleter, 1998). As De Houwer (2006) puts it, this linguistic behaviour indicates children's high sensitivity to the addressees' language choice. Children's ability to accommodate such language choices indicates a level of sociolinguistic and pragmatic development that is usually not observed in their monolingual peers until at least a year later. The researcher assumes that bilingual children learn which type of utterances they can use or they should use in what situation "through language socialization practice in the family" (p. 784).

The present paper first reviews the sociolinguistic aspects of bilingual language choice, moves on to investigate the notion of language choice presented in the models of bilingual language production (e.g., Green, 1986; Hartsuiker & Pickering, 2008; de Bot, 1992, 2004; Walters, 2005) and comprehension (e.g., Dijkstra & Van Heuven, 2002), views different factors as a single window into the bilingual language selection, and finally examines language choice in dialogue. Bilingual language choice in a dialogue setting has hardly been discussed. Moreover, the present study, to my knowledge, is the first to investigate language choice in bilinguals from different disciplines.

2. LITERATURE REVIEW

Bilingual language selection as a social issue

Bilingual language choice has been discussed in several sociolinguistic studies. Fishman (1965) identifies three factors as the determinants of bilingual language choice. The first controlling factor is "group membership". By using appropriate language, a bilingual speaker identifies herself/himself with a different group to which he/she belongs, is willing to belong, and from which he/she seeks acceptance. It is not surprising to find that a bilingual selects different languages in different situations. For example, a government functionary in Brussels generally prefers to speak standard French in the office, standard Dutch at the club near his home, and a "distinctly local variant of Flemish" (p. 95) when he is at home. He might use a mix of French and

Dutch when addressing a French-Dutch speaker. This situation might "be replaced by any one of some others such as Romansch, Standard German, and Schwyzertüsch in some parts of Switzerland. Thus, the main aim of adopting such a convergence strategy is the speakers' desire to achieve approval from another, namely, the social networks to which she/he is believed to belong (Sachdev et al., 2013).

Social category memberships are sometimes negotiated during bilingual interaction through the accommodation process (Sachdev et al., 2013). Bourhis (1994) reports an example of this in bilingual Montreal in a Canadian community where Anglophones (English speakers in countries where other languages are also spoken) perceive Francophone much more favorably when the Francophone converges toward English rather than in French, and also vice versa. Both interlocutors use each other's weaker language to communicate. Their linguistic behaviour demonstrates that speakers might use mutual language convergence as a strategy to improve ethnic harmony. It is not even uncommon to find, for instance, that speakers of High German (German) might choose to speak Swiss German rather than High German in German-speaking states (cantons) in Switzerland, however, they may be understood very well when they speak High German. Selecting Swiss German helps the speaker be more integrated into the Swiss community. As Sachdev and Giles (2004) put it, the more similar speakers are to their interlocutors, the more they will like or respect each other and the more social rewards they can expect.

A second regulating factor that affects bilinguals' language choice is the "situation" (Fishman, 1965). Speakers' linguistic behaviour may be affected by the immediate context and the presence of participants. Situational factor refers to the fact that one of the languages of a bilingual speaker is more suited to certain participants, and social groups than the other language (Bhatia & Ritchie, 2004). "Situation" might impose certain regularities in bilinguals' language choice on certain social occasions. One of the situations that affects language choices is where a monolingual speaker is among the participants. In this situation, a bilingual speaker selects the language that the monolingual knows. Selecting a language that the monolingual participant cannot speak might be an indicator of disrespect for the monolingual speaker. Such linguistic behaviour of bilinguals shows "a mutual understanding of the obligations and rights of participants" (Bhatia & Ritchie, 2004, p. 339).

Sometimes, including or excluding an individual among the participants from a conversation affects a bilingual's language choices. This kind of situation arises when a monolingual speaker is among the addressees. In order to exclude an addressee among the addressees from the conversation, bilinguals might choose the unshared language. For example, when Mazandarani-Persian bilinguals (Mazandarani is a local language spoken across the Caspian Sea in northern Iran) have guests who do not know Mazandarani, they might select to speak Mazandarani to talk about the shortage of items (e.g., food). In such a situation, language choice strategy serves to exclude an individual addressee from a conversation.

Some other non-linguistic factors have also been recognized to play roles in bilingual language choices. Among them are religion, occupation, the content of discourse, gender, and ethnicity (see Grosjean & Li, 2013 for a discussion about factors that determine choice). Walters (2005) classifies them into the intrapersonal factors that determine language choices. For example, according to Backus (2004), there is a firm link between religion and language choices among Turkish bilingual speakers. Turkish bilinguals have been reported to use Turkish exclusively in mosques.

I assume that for many situations bilingual speakers decide among four language choice options, unilingual in language A, unilingual in language B, using both languages for communication but each typically with different speakers (see Green & Abutalebi, 2013 for dual

language context), or a mix of the two languages. Their choices are affected by external sociocultural factors such as the addressee, (the addresses' language proficiency, the addresses' attitude toward language mixing), and the conversational situation. This is because sociopragmatic knowledge affects language production at different levels from intention to speak to articulation. Fishman (1965) speculates that "proper usage, or common usage, or both" (p. 67) determine that only one of the co-available languages will be chosen by particular interlocutors in a particular situation. I assume that based on such variables (i.e., the proper usage, common usage, or both) a bilingual speaker might also recognize that a mixing of the two languages might be appropriate for a given occasion. When a speaker recognizes that her/his addressee does not have a negative attitude toward language mixing or code-switching, she/he is encouraged to use a mix of the two languages. In contrast, when a bilingual speaker finds that even one of the addressees does have a negative attitude toward language mixing, she/he might not use language mixing. The idea that sometimes mixing of languages is preferred in some contexts is in line with Green's (2011) assumption that in some situations where a speaker is permitted, he uses the mixing of languages because of "the behavioural ecology of bilingual speakers" (p. 1) does affect the processes of language control. The interactional context determines whether there must be a stronger control over the language-not-in-use or a weaker control suffices. A weaker language control (open control mode) permits language mixing (see Green & Abutalebi, 2013; Green & Wei, 2014).

Language Selection in Models of Bilingual Language Production and Perception

As language choice is one of the most important characteristics of bilingual speech production, the way how it is achieved needs to be determined in a model of bilingual language production. Several models of bilinguals' speech production discussed language choice in bilinguals. Green's (1986, 1998) inhibitory control (IC) model posits a language tag for each lemma. The model holds that producing a word in a particular language requires the intention to do so to be included in the conceptual representation (Green, 1998). The model suggests that each lemma in the mental lexicon has an associated tag for L1 or L2. All other lemmas in the language share the same associated tag. The selection mechanism, thus, operates on language tags that are associated with lemmas (Green, 1998). According to the IC model, the activation of the language tag together with the conceptual information about the intended language leads to the selection of a relevant lemma. Moreover, language task schema targets the language tags to suppress competitors. In Persian-German bilinguals, for instance, when Persian is selected as the base language, the language tag corresponding to the other language (here, German) is inhibited. Green (1998) assumes that language tag is just one cue that allows speakers to control output. The model suggests that output is controlled by suppressing (inhibiting) lemmas with inappropriate tags. Thus, according to the model, the availability of language tag together with suppressing (inhibiting) lemmas with inappropriate tags allows speakers to control language output.

Concerning the conceptualizer operation in the case of language differences (e.g., the distance difference in English and Spanish) de Bot (1992) makes some assumptions: the preverbal message includes "all the possible relevant information for all possible languages" (p. 8). Accordingly, one way to include information about language selection "is to label parts of the message according to the language" (de Bot & Schreuder, 1993, p. 201). The Vbl (verbalizer) receives language information from the preverbal message. In order for the preverbal messages to be lexicalized, they are required to be divided into chunks. Each of the chunks is labelled depending on the value of the language cue (de Bot & Schreuder, 1993). There are, however, some arguments with respect to the suggestion. As the researchers state, in some settings the mixing of the two languages can be done almost at random; or sometimes when bilinguals encounter a lexical problem, they may use words from their L1 as a compensatory strategy (de Bot & Schreuder, 1993). In this situation,

they use words from their L1, however, they are aware that the interlocutor is monolingual. Accordingly, a bilingual's language processing may not always follow from the initial language selection. Moreover, de Bot (1992) suggests that one possibility about which part of the language system is responsible for selecting the base language is to assume that "the knowledge component is involved in this choice: it contains a discourse model, a list of limiting conditions for the speech which is to be generated, however, the role of the knowledge component is not very clear" (p. 7).

In his study, de Bot (2004) proposed that the intention of speaking in a specific language originates from the conceptual level, however, it is relayed to both the information in the preverbal message and the language node. In other words, information on the language to be used comes from two different sources: from the lexical concepts and the language node. de Bot (2004) suggests that the problem with the earlier proposal (de Bot & Schreude, 1993) is that "all information about language choice has to be included in some form in the preverbal message" (de Bot & Schreuder, 1993, p. 201) is that some aspects of production such as "deliberately speaking with a foreign accent" appears to be difficult to control in such a way. The language node system can control language choice at the lower level of production. The language node will inform the relevant components including the syntax, lemma, and word form (de Bot, 2004). Thus, language membership information might be available at multiple levels: conceptual, syntactic, lemma, and word form. "The language node conveys information about language selection both from the conceptual level to lower-level components and between components at these lower levels" (de Bot, 2004, p. 29).

In some models of bilingual language production (e.g., Hartsuiker & Pickering, 2008) and comprehension (e.g., Dijkstra & Van Heuven, 2002) language nodes are the main determinants of language selection. As far as I am aware, the greatest role to the language nodes was given by Dijkstra and Van Heuven (1998, 2002). In Dijkstra and Van Heuven's (2002) Bilingual Interactive Activation (BIA) model, all the word nodes are connected to language nodes. According to the model, in German-English bilinguals, for instance, activated word nodes (e.g., Zug meaning dog) send activation on to the relevant language node (here, German language node). Activated language nodes also "send inhibitory feedback to all word nodes" (Dijkstra & Van Heuven, 2002, p. 177) in the other language (here, English). The language nodes, thus, collect activation from lexical items in the language they represent and suppress active words in the other language. In BIA model (Dijkstra & Van Heuven, 1998) language nodes have four primary functions: a) they function as language tag for each individual item in order to identify to which language an item belong; b) collect activation from words within a language. Based on the model, language nodes function as linguistic representations in the first two functions; c) they function as a "language filter (rather than an all-or-none language switch)" that modulates language activation; d) language nodes collect information from outside the language system (the linguistic context) for example information about participants' expectations with respect to the appropriate language. The researchers assume that in the last two functions language nodes serve as non-linguistic functional mechanisms.

Based on the model, language nodes have both linguistic and non-linguistic functions (Dijkstra & Van Heuven, 1998). However, Dijkstra and Van Heuven (2002) indicate that combining all these aspects (linguistic and non-linguistic) in one mechanism is too ambitious. This led the researchers to restrict the functions of language nodes to "language membership representations, …. Being just representations, the language nodes can no longer function as language filters … nor as collectors of non-linguistic contextual pre-activation" (p. 186).

The same account holds for Hartsuiker and Pickering's (2008) integrated model of syntactic representation. The model that is an extension of Roelofs (1992) and Hartsuiker et al. (2004)

models postulates a language node for any lexical items. Accordingly, each lemma node (e.g., eat) is linked to one language node (e.g., English) (Purmohammad, 2009; 2015a). Remember that in Green's (1998) IC model, the language nodes are equivalent to language tags. In Hartsuiker and Pickering's (2008) integrated model of syntactic representation, items are tagged for the languages (e.g., Persian, German) by linking, for instance, to ''Persian'' or ''German'' language nodes respectively. In this model, some nodes are inherently activated. Whereas the verb node is inherently activated whenever a verb such as "think" is activated, some nodes are not. For example, *Sleep* is linked to both the past tense and the present tense nodes. Whenever "*slept*" is used, the past tense node is activated along with the lemma *sleep* (Pickering & Branigan, 1998). Accordingly, the language node must be inherently activated when a word (e.g., Zimmer) is activated. Whereas Hartsuiker and Pickering's (2008) model is explicit about the functions of the combinatorial node, featural node, and category node (see Pickering & Branigan, 1998 for discussion), it is not explicit about the function of language nodes. In a personal communication (p.c.) with Hartsuiker, he referred me to the notion of language node proposed in Dijkstra and Van Heuven (2002). It seems that the model applies the same language node account as proposed in Dijkstra and Van Heuven (2002).

Walters (2005) proposed the Socio- Pragmatic Psycholinguistic Processing (SPPL) model. The SPPL model has socio- pragmatic roots. The researcher states that the main aim of proposing the SPPL modal was to account for various source of socio-pragmatic information in bilingual language production and integrate it with psycholinguistic aspects of bilingualism. In the SPPL model, there are seven sources of information. Two modules (language choice and affective) are assumed to run vertically because they have interactions with other sources of information. This indicates that language choice and affective information are available at every level of speech production. The central foci of the SPPL model are the language choice module and its interaction with the other sources of information (Walters, 2005). In Figure 1, the left-to-right direction of the two-headed arrows shows that the language choice module provides the following LI and L2 information to bilinguals "(1) in the construction of identity, (2) in the choice of where to speak, and in preferences for interlocutors and genres, (3) in the formulation of an intention, (4) in the retrieval of concepts and words, and, finally, (5) in the articulation of an utterance" (p. 11).

The language choice module selects, regulates, and retrieves information from the internal components and integrates them with the speaker's language choices. In the SPPL model, a language choice component makes language tags available at a different level of speech production including the conceptual, lemma, and lexemic levels of representation. Walters (2005) assumes that while the language choice module selects and retrieves elements from the two languages including features of identity, genre, morphosyntax, phonology, lexis, and discourse, in other accounts of language choice (e.g. Albert & Obler, 1978; Poulisse, 1997) especially in Green's (1986) account in which language tag is responsible for language choice, the function of language choice is limited to the lexicon only. Thus, concerning the function of language choice, the principal difference between the SPPL model and other approaches (e.g. Albert & Obler, 1978; de Bot, 1992; de Bot & Schreuder 1993; Green, 1986, 1998; Poulisse, 1997) is that whereas in SPPL model the language choice module runs vertically, hence is functioning at every stage of bilingual language production and supplies that information to the identity, pragmatic, morphosyntactic, phonological, lexical, contextual, and discourse information components, in the other approaches the verbalizer at conceptualizer level is responsible to assign information about the language (Walters, 2005). As stated above, in their earlier account of language choice information, de Bot and Schreuder (1993) assumed that "all information about language choice has to be included in -
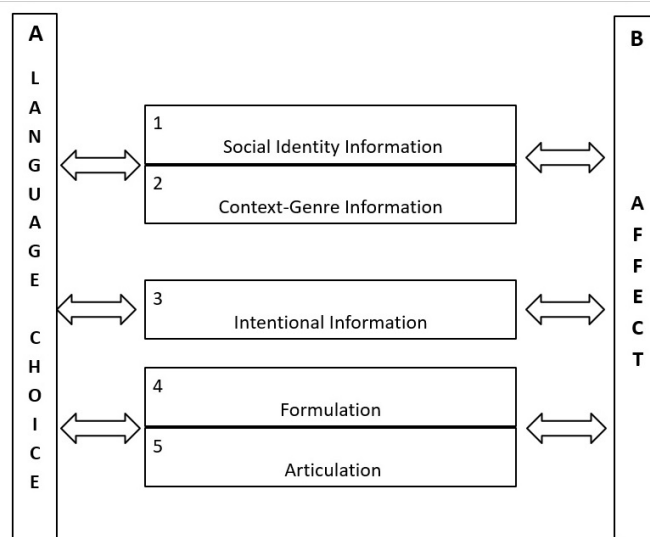
Fig.1: The Sociopragmatic Psycholinguistic Processing Model (SPP)

Adapted from Walters (2005:93). Bilingualism: The Sociopragmatic Psycholinguistic Interface. Lawrence Erlbaum Associates, Inc., Publishers.

some forms in the preverbal message" (p. 201). Walters (2005) argues that in de Bot and Schreuder's (1993) account, even data at the phoneme and syllable levels of processing require the verbalizer to determine the language to phonemes and syllables. Thus, the researcher assumes that "there is no resolution to this problem in a framework where all the work for language specification is carried out by the verbalizer" (p. 85).

3. DISCUSSION

The present paper first reviewed the sociolinguistic aspects of bilingual language choice, moved on to investigate the notion of language choice presented in the models of bilingual language production (e.g., de Bot, 2004; Green, 1986; Hartsuiker & Pickering, 2008, 1992; Walters, 2005) and comprehension (e.g., Dijkstra & Van Heuven, 2002), viewed different factors through a single window into the bilingual language selection, and finally examined language choice in dialogue. Bilingual language choice in a dialogue setting has hardly been discussed. Moreover, the present study, to my knowledge, is the first to investigate language choice in bilinguals from different disciplines. Bilingual language choice has been discussed from different disciplines including sociolinguistics (e.g., Fishman, 1965; Walters, 2005),

neurolinguistics (e.g., Green, 1986, 1998), and psycholinguistics (e.g., de Bot, 2004, 1992; Dijkstra & Van Heuven, 2002; Hartsuiker & Pickering, 2008). The results from the studies reviewed above suggest that one of the two languages needs to be selected as the base language for any linguistic context. Including language choice information in the preverbal message (de Bot, 1992; Green, 1986) provides an elegant solution for how the intended concept is channelled to a specific language of a bilingual speaker. According to Treffers-Daller (2009), most bilingual researchers agree that the decision to select one language as the base language of dialogue increases the likelihood that lemmas belonging to that language receive more activation (see Kootstra et al., 2020). As discussed, findings from sociolinguistic studies of bilingualism demonstrated that factors of different natures affect bilingual language choice. Language selection is, thus, something more than a mere selection of one of the two languages. As Paradis (2004) puts

it, language selection is an awareness of membership, an outcome of metalinguistic knowledge rather than an unconscious process.

As noted above, some models (e.g., Hartsuiker & Pickering, 2008; Dijkstra & Van Heuven, 2002) postulate that language nodes are responsible for language selection. There might be two problems with respect to the "language node" account especially if it is considered the main determinant of bilingual language choice. The first problem is that it does not explain the language-mixing phenomenon as the most frequent phenomenon in bilingual speech production (Paradis, 2004). As stated above, I assume that bilingual language choice includes four options, unilingual in language A, unilingual in language B, using both languages for communication but each typically with different speakers (see Green & Abutalebi, 2013 for dual language context), or a mix of the two languages. Because in some linguistic contexts, especially in a dense code-switching context (Green 2018; Green & Abutalebi, 2013) where the partners know the two languages and the speaker is aware that his or her partner does not have a negative attitude toward language mixing, he or she decides to use the mixing of the two languages (see Beatty-Martínez et al., 2020). As Green (2018) states, bilinguals use their two languages in different ways due to the interactional context. Therefore, any language control mechanism must be able to enable different patterns of language use. The assumption that language choice information also includes language mixing permits us to provide an account for a wider range of bilingual linguistic behaviour such as code-switching and translation. However, language nodes may not account for language mixing (see Purmohammad et al., 2022; Purmohammad, 2015a, 2015b).

A second problem that concerns the language node may be that the language information is available very late for language processing (see Dijkstra & Van Heuven, 2002), especially too late to direct the preverbal message to the intended language. As Dijkstra and Van Heuven (2002) put it, language nodes are not able to "enforce language selective lexical access from the very beginning of word recognition" (p. 177). The same problem holds for the word production process because in order to decide which language must be selected as the language of conversation, language processing is required to reach the lemma level. It should be noted that although language nodes, to which all the lemma nodes of a given language are linked, are not responsible for language choice formulation; they have a facilitatory role for an intended message to be channelled to a certain language of a bilingual speaker.

In this model, language nodes are responsible for inhibiting active non- target language words. For example, in the case of a German-Persian bilingual, at the lemma level, a German word activates the German language node, and this language node feeds activation back to all German words and suppresses all words from the Persian lexicon. Thus, it is unclear what mechanism directs language processing from the conceptualizer level to the intended lemma level in which lexical items of individual language are to be accessed. This account speculates that the language of a given utterance and inhibiting words from the other language is determined only after the first item is selected, because the language nodes collect activation from their respective lexicon, and inhibit words in the other lexicon. Moreover, no top-down inhibitory mechanism is postulated in BIA.

In BAI+ the function of language nodes is limited to membership representations. It should be mentioned that whereas important modifications have been made with respect to the functions of language nodes in BIA+ model, one existing problem is that language information is available very late for language processing, usually too late to direct the preverbal message to the intended language. Language cues cannot be assigned at the very late stage of language processing.

Green (1986, 1998) proposed that tag specification is "part of the conceptual representation" (p. 71). The IC model holds that producing a word in a particular language requires the intention

to do so to be included in the conceptual representation. The model also suggests that each lemma in the mental lexicon has an associated tag for both L1 and L2. The activation of language tag together with the conceptual information about the intended language leads to the selection of a relevant lemma (Green, 1998).

As discussed above, for many situations bilingual speakers decide among four language choice options, unilingual in language A, unilingual in language B, using both languages for communication but each typically with different speakers (see Green & Abutalebi, 2013 for dual language context), or a mix of the two languages. Grosjean (1982, 1985, 2008) also introduces language mode which is "the state of activation of bilinguals' languages and language mechanism and language processing mechanism at a given point in time" (Grosjean, 2008, p. 39). On this account, bilingual speakers' linguistic behaviour is presented in two separate contexts: when they are speaking to monolingual speakers and when they are speaking to bilingual speakers. In the monolingual mode, bilinguals activate one language to much greater degree and suppress the other language (but never totally) and in bilingual speech mode, they select one of the languages as the base language, activate the other language, and "calls on it from time to time in the form of code-switches and borrowings" (p. 38). Thus, a bilingual speaker may select the bilingual mode for a given situation. It seems that Green's (1986) notion of "language tag" (that will be discussed in detail in this section) is not explicit about the language mixing choice. Accordingly, if language specification determines which language to be selected, in the case where a bilingual speaker selects to use a mix of the two languages, there must be a "switch tag" rather than a "language tag" available in the preverbal message.

Paradis (2004) assumes that the means of selection needs not be different from that used by a unilingual speaker to select formal-register words rather than baby- talk words. According to the researcher, if speaking one language rather than another requires that a bilingual speaker provides a language tag at the preverbal message as proposed in Green (1998), then a similar tag seems to be necessary for unilingual speakers to select lexical "items from among their various registers" (p. 112) from among within-language synonyms. Paradis suggests that the selection mechanism between the two languages needs not be different from that operates within each language. He proposed a direct-access hypothesis in Paradis (2004). According to the hypothesis, the intended language is accessed without the need for a language tag in the preverbal message to first identify which language is to be selected. The same process as used by unilingual speakers suffices to account for a bilingual's selection of lexical items, structures, or pronunciation, allowing them to select to speak in unilingual mode (Grosjean, 1985) or to freely mix the two languages. There is a strong link between Paradis activation threshold hypothesis and the direct-access hypothesis. The activation threshold mechanism leads bilingual lexical access not to need a language tag. The activation threshold hypothesis supports the idea that the intended language is accessed directly without the need for a language tag. Accordingly, when one language is selected rather than another, automatically the activation threshold of the non-selected language is raised. In other words, the activation threshold of its competitor (the other language) is raised. This leads the preverbal message to direct to the intended language without the need for a language tag (Paradis, 2004, 2009).

In personal communication, (p.c.) David Green presented more details about the notions of "tag specification". According to the researcher, there are different ways in which the notion of a tag might be specified and implemented and what its actual sense might be. Language tag might not reflect formally defined languages such as "German" or "Farsi" but other aspects of language use: the language speakers use to their relatives or on this occasion: what is key is that there is a

functional way to distinguish the languages where those languages are distinguished within a given language community (the behavioural ecology of the speaker).

I assume that the major problems proposed by some researchers (e.g., Paradis, 2004) with respect to the notion of tag specifications may be resolved by the above explanation. For example, Paradis (2004) assumes that if speaking one language rather than another requires that a bilingual speaker provides a language tag at the preverbal message as proposed in Green (1998), then the same tag seems to be necessary for unilingual speakers to select "lexical items from among their various registers" (p. 112), from among within-language synonyms. According to Green (p.c.), as the function of tag specification is broader than selecting formally defined languages "German" or "Farsi", even speaking one language demands tag specifications which include information about which register or style is appropriate concerning a given context. "Some form of tagging may also be used to label vocabulary or structures associated with particular "registers" or styles of speech within a language" (Green, 1986, p. 217).

In the SPPL model proposed by Walters (2005) the language choice module runs vertically, hence functions at every stage of bilingual language production including the conceptual, lemma, and lexemic levels of representations, and supplies that information to the identity, pragmatic, morphosyntactic, phonological, and lexical information components. As stated above, in SPPL model the problem that the language choice module might have is that it is too big to be included in bilingual language processing. Moreover, combining all these aspects in one single module is probably too ambitious, because the language choice module needs to interact with several sources of information that are different in nature including a) formulation, for the retrieval of concepts and words and access to the morphosyntactic information, b) articulation for phonology, c) intentional information for speakers' intention to speak, and d) social identity information for features of identity, style, and genre. The language choice module in the SPPL model selects, regulates, and retrieves information from the internal components and integrates them with the speaker's language choices. More importantly, in this model, the way the language choice module interacts with such a different source of information is unclear.

Regarding the language choice mechanism, there are still some points that need to be clarified. First, since language choice is mainly a function of speakers' metalinguistic knowledge, and is highly affected by several non-linguistic factors (topic, interlocutor, situation, group membership, etc.), I assume that language choice is preliminarily formulated outside the bilingual language system; while distinct, there is a close interaction between the language system and the metalinguistic, and sociopragmatic knowledge (Paradis, 2004; Rickheit et al., 2008). Green (p.c.) assumes that there is debate about where the intention to speak in a particular language is formulated because it must make use of the linguistic context. I suggest that language choice is not formulated in the conceptualizer (i.e., in the language system) because selecting a specific language to speak is not an inherent function of the conceptualizer at the conceptual level. While language choice is formulated outside the language system, the output of tag specification formulation is sent to the conceptualizer where it is included in the preverbal message. As Costa (2005) states, the decision of which language to use to convey the intended message is based on different types of information that have little to do with the lexical system.

Second, language cue (tag specification) has various values depending on several linguistic and non-linguistic factors (de Bot, 1992; de Bot & Schreuder, 1993). The relative value of such language cue depends on which language mode the bilingual is expecting to experience (Grosjean, 1985, 2008). In bilingual settings, the value of such language cue is not very high. This permits bilinguals to switch between the two languages. One question that arises is why while sometimes the value of the language cue is high, bilinguals use words from the other language. This may be

because some words from the other language have lower activation threshold levels (Paradis, 1993, 2004). Moreover, when the topic of conversation changes (e.g., a bilingual speaks about a topic that relates to the other language) or when a new addressee enters the conversation, people may use words from the other language regardless of what language cue was included in the preverbal message, because such a situation might increase the activation level of the words in the other language

Third, recent studies revealed that language membership information at the lower level of processing from both the lexical and the sub-lexical level facilitates language processing (Kesteren et al., 2012). This suggests that language information is also available at the lower levels of production. For example, Lemhöfer et al. (2011) report that both native and non-native speakers used bigram (e.g., English bigram wh) at the morpheme boundary as a cue during reading Dutch compound words. Participants were faster to respond in compound words that included such orthotactic cues. In other words, participants used the orthographic parsing cues in order to direct higher-level processes. According to Kesteren, et al. (2012), sub-lexical and lexical information sources could potentially codetermine the language membership of a specific word. Studies (e.g., Dijkstra & van Heuven, 2002; Poulisse & Bongaerts, 1994) showed that lexically orthographic or lexically phonological representations are connected to particular "language membership" representations or tags that indicate the language to which a lexical item belongs. The results from Kesteren, et al. (2012) study indicate that sub-lexical language membership information (e.g., the words' orthographic representations in the two languages of bilinguals) "could be used to speed up bilingual identification processes or decision making" (p. 2131). Interestingly, Vaid and Frenck-Mestre (2002) report that French-English bilinguals were more sensitive to the orthographic cues for their second language than their first language. The idea that language membership information is also available at the lower level of processing is consistent with de Bot and Schreuder's (1993) account that it is unlikely that "Vbl specifies the language for each individual phoneme or sound which clearly cannot be the case" (p. 205). The account that some information about language exists at the lower levels through language membership information and language nodes provides an elegant solution to the problem proposed by Walters (2005). As stated above, Walters (2005) argues that in de Bot and Schreuder's (1993) account, even data at the phoneme and syllable levels of processing require the verbalizer to determine the language to phonemes and syllables. Thus, the researcher assumes that "there is no resolution to this problem in a framework where all the work for language specification is carried out by the verbalizer" (p. 85). Thus, a distinction is made between language membership information and language node at the lower level of the processing; however, both facilitate bilingual language processing.

Finally, I assume that a language cue does not need to be included in the preverbal message for every sentence that bilinguals produce during a course of the dialogue. The automaticity existing in dialogue affects bilingual speech production to a great extent. Language choice mechanism may be formulated at the very early stage of language production in dialogue settings, but there is no need for interlocutors to select a language for any dialogue turn. Considering the fact that in most exchanges "inter-turn intervals are extremely close to 0 ms" (Garrod & Pickering, 2009, p. 300), speakers may not decide to speak in one language rather than the other language for every dialogue turn. In other words, like other aspects of language production (e.g., word selection) language choice mechanism also undergoes automaticity in dialogue. As Code (1994) states "much of our speech activity is not under ongoing, moment-to-moment control, with each segment being individually planned and sequentially executed. It would be physiologically impossible for us to produce speech with the rapidity and the proficiency that we can if we had to plan and perform each segment individually" (p. 137). Speakers' linguistic behaviour is affected by interlocutors

during the course of the dialogue. (see Broersma et al., 2020; Garrod & Pickering, 2007, 2009; Pickering & Garrod, 2004, 2006, for the priming effect, and interactive alignment). de Bot (p.c.) agrees that in conversation there is no language choice needed at a high level. The researcher goes on further and states that "a deeper question is whether bilinguals need to choose between languages at all". De Bot (p.c.) states that "I now believe that we have a repertoire of situation-specific utterances that may include words from different languages but is extracted in this form. When I am in an English-speaking environment I use English words or utterances because that is what I have learned is appropriate. The selection is not at the utterance level; it is the setting that leads to specific utterances". Thus, de Bot no longer endorses his statements on language choice which were presented in his influential papers (1992, 2004). In line with de Bot, I assume that bilinguals do not have to decide which language to use for every communication. In cases where they need to formulate language selection, it follows from the processing discussed above.

Thus, since the bilingual speech production system is indeed dynamic (Hermans et al., 2011) and is affected by several linguistic and non-linguistic factors, "bilingual language selection" should not also be viewed as an all-or- nothing phenomenon. The linguistic context determines whether "language selection" needs to be formulated at a higher level. During the course of the dialogue, the interlocutors do not need to determine a choice for every utterance they produce as a function of the alignment processes and automaticity. When there is a language history between the participants (see Grosjean & Li, 2013), bilinguals use their "repertoire of the situation" to communicate with each other. I know a couple, M and N, in Switzerland. M is a Mazandarani-Persian bilingual and his wife is an Azeri Turkish- Persian bilingual. As I am a Mazandarani-Persian bilingual, and given that in our first meeting in 2013, we both had a positive attitude toward speaking in Mazandarani, M and I decided to communicate in the Mazandarani language. We still keep on communicating in the Mazandarani language. Thus, based on the language history, I do not need to formulate language choice for every communication with M. However, whenever his wife is present, I use Persian in order to include her in the conversation. As speaking with M in Persian is not what I normally do, language choice may be needed to be formulated at a high level.

4. CONCLUSION

I assume that language choice is formulated outside the bilingual language system but the output of tag specification formulation is sent to the conceptualizer where the information about language is included in the preverbal message. Language information including information about language choice (at the higher level of processing), language membership information, and language nodes (at the lower level of processing) construct a language information network during bilingual language processing. The intention to use a particular language is, thus, relayed to both the system at the higher level of processing which produces lexical concepts, and the language node (de Bot, 2004). The idea that some information about language exists at the lower levels through language membership information and language nodes provides an elegant solution to the problem proposed by Walters (2005) that in de Bot and Schreuder's (1993) account, even data at the phoneme and syllable levels of processing require the verbalizer to determine the language to phonemes and syllables. When a specific language is selected, the language node at the lower level will inform all corresponding components in which syntactic or form information is required to be selected. Thus, a link is made between the information on language at the higher level and the language nodes and language membership information at the lower level of language processing (lemma and lexeme levels). In other words, the language choice information included in the preverbal message (de Bot, 1992; Green, 1986, 1998) together with language nodes and language membership information from the sub-lexical structure of lexical items (e.g., English bigram wh) (Kesteren et al., 2012) and phonological representations regulate bilingual language processing.

Lastly, I proposed that there is no need to include information on language choice for every utterance during a course of dialogue or when there is a language history between the two participants.

References

Albert, M., & Obler, L. K. (1978). *The bilingual brain: Neuropsychological and neurolinguistics aspects of bilingualism*. Academic Press.

Backus, A. (2004). Turkish as an immigrant language in Europe. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism and multilingualism* (pp. 689-724). Blackwell.

Beatty-Martínez, A. L., Navarro-Torres, C. A., & Dussias, P. E. (2020). Codeswitching: A bilingual toolkit for opportunistic speech planning. *Frontiers in Psychology*, 11, 1699. https://doi.org/10.3389/fpsyg.2020.01699.

Bhatia, T. K., & Ritchie, W. C. (2004). Bilingualism in south Asia. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism and multilingualism* (2nd ed., pp. 780-807). Blackwell.

Bourhis, R. Y. (1994). Bilingualism and the language of work: The linguistic work environment survey. *International Journal of the Sociology of Language*, 105-106, 217-266. https://doi.org/10.1515/ijsl.1994.105-106.217.

Broersma, M., Carter, D., Donnelly, K., & Konopka, A. (2020). Triggered codeswitching: Lexical processing and conversational dynamics. *Bilingualism: Language and Cognition*, 23, 295-308. https://doi.org/10.1017/S1366728919000014

Carota, F., Posada, A., Harquel, S., Delpuech, C., Bertrand, O., & Sirigu, A. (2009). Neural dynamics of the intention to speak. *Cerebral Cortex*, 20(8), 1891-1897. https://doi.org/10.1093/cercor/bhp255

Code, C. (1994). Speech automatism production in aphasia. *Journal of Neurolinguistics*, 8, 135-148. https://doi.org/10.1016/0911-6044(94)90020-5

Costa, A. (2005). Lexical access in bilingual production. In J. F. Kroll & A. M. B. De Groot (Eds.), *The handbook of bilingualism: Psycholinguistic approaches* (pp. 309-325). Oxford University Press.

de Bot, K. (1992). A bilingual production model: Levelt's 'speaking' model adapted. *Applied Linguistics*, 13, 1-24. https://doi.org/10.1093/applin/13.1.1

de Bot, K. (2004). The multilingual lexicon: Modelling selection and control. *International Journal of Multilingualism*, 1, 17-32. https://doi.org/10.1080/14790710408668176

de Bot, K., & Schreuder, R. (1993). Word production and the bilingual lexicon. In R. Schreuder & B. Weltens (Eds.), *The bilingual lexicon* (pp. 191-214). Benjamins.

De Houwer, A. (2006). Bilingual language development: Early years. In K. Brown (Ed.), *Encyclopedia of language and linguistics* (2nd ed., pp. 781-787). Elsevier.

Dijkstra, T., & Van Heuven, W. J. B. (1998). The BIA model and bilingual word recognition. In J. Grainger & A. M. Jacobs (Eds.), *Localist connectionist approaches to human cognition* (pp. 189-225). Lawrence Erlbaum Associates.

Dijkstra, T., & Van Heuven, W. J. B. (2002). The architecture of the bilingual word recognition system: From identification to decision. *Bilingualism: Language and Cognition*, 5, 175-197. https://doi.org/10.1017/S1366728902003012

Fishman, J. A. (1965). Who speaks what language to whom and when? *La Linguistique*, 2, 67-87.

Garrod, S., & Pickering, M. J. (2007). Automaticity in language production in monologue and dialogue. In A. S. Meyer, L. R. Wheeldon, & A. Krott (Eds.), *Automaticity and control in language processing* (pp. 1-21). Psychology Press.

Garrod, S., & Pickering, M. J. (2009). Joint action, interactive alignment, and dialogue. *Topics in Cognitive Science*, 1, 292-304. https://doi.org/10.1111/j.1756-8765.2009.01020.x

Giles, H., & Johnson, P. (1981). The role of language in ethnic group relations. In J. C. Turner & H. Giles (Eds.), *Intergroup behaviour* (pp. 199-243). Blackwell.

Green, D. W. (1986). Control, activation and resource. *Brain and Language*, 27, 210-223. https://doi.org/10.1016/0093-934X(86)90016-7

Green, D. W. (1998). Mental control of the bilingual lexico-semantic system. *Bilingualism: Language and Cognition*, 1, 67-81. https://doi.org/10.1017/S1366728998000133

Green, D. W. (2011). Language control in different contexts: The behavioural ecology of bilingual speakers. *Frontiers in Psychology*, 2(103), 1-4. https://doi.org/10.3389/fpsyg.2011.00103

Green, D. W. (2018). Language control and code-switching. *Languages*, 3(2), 8. http://doi.org/10.3390/languages3020008

Green, D. W., & Abutalebi, J. (2013). Language control in bilinguals: The adaptive control hypothesis. *Journal of Cognitive Psychology*, 25(5), 515-530. https://doi.org/10.1080/20445911.2013.796377

Green, D. W., & Wei, L. (2014). A control process model of code-switching. *Language, Cognition and Neuroscience*, 29(4), 499-511. https://doi.org/10.1080/23273798.2014.882515

Grosjean, F. (1982). *Life with two languages: An introduction to bilingualism*. Harvard University Press.

Grosjean, F. (1985). The bilingual as a competent but specific speaker-hearer. *Journal of Multilingual and Multicultural Development*, 6, 467-477. https://doi.org/10.1080/01434632.1985.9994221

Grosjean, F. (2008). *Studying bilinguals*. Oxford University Press.

Grosjean, F., & Li, P. (2013). *The psycholinguistics of bilingualism*. Wiley-Blackwell.

Gumperz, J., & Hymes, D. (1972). *Directions in sociolinguistics*. Holt, Reinhart, Winston.

Hartsuiker, R. J., & Pickering, M. J. (2008). Language integration in bilingual sentence production. *Journal of Experimental Psychology*, 128(3), 479-489. https://doi.org/10.1037/0096-3445.137.3.479

Hartsuiker, R. J., Pickering, M. J., & Veltkamp, E. (2004). Is syntax separate or shared between languages? Cross-linguistic syntactic priming in Spanish-English bilinguals. *Psychological Science*, 15, 409-414. https://doi.org/10.1111/j.0956-7976.2004.00693.x

Hermans, D., Ormel, E., Van den Besselaar, R., & Van Hell, J. G. (2011). Lexical activation in bilinguals' speech production is dynamic: How language ambiguous words can affect cross-language activation. *Language and Cognitive Processes*, 26(10), 1687-1709. https://doi.org/10.1080/01690965.2010.530411

Kesteren, R. V., Dijkstra, T., & De Smedt, K. (2012). Markedness effects in Norwegian–English bilinguals: Task-dependent use of language-specific letters and bigrams. *The Quarterly Journal of Experimental Psychology*, 65(11), 2129-2154. https://doi.org/10.1080/17470218.2012.679946

Kootstra, G. J., Dijkstra, T., & van Hell, J. G. (2020). Interactive alignment and lexical triggering of code-switching in bilingual dialogue. *Frontiers in Psychology*, 11, 1747. https://doi.org/10.3389/fpsyg.2020.01747

Kroll, J. F., Bobb, S. C., & Wodnecka, Z. (2006). Language selectivity is the exception, not the role: Arguments against a fixed locus of language selection in bilingual speech. *Bilingualism: Language and Cognition*, 9(2), 119-135. https://doi.org/10.1017/S1366728906002483

La Heij, W. (2005). Selection processes in monolingual and bilingual lexical access. In J. F. Kroll & A. M. de Groot (Eds.), *Handbook of bilingualism: Psycholinguistic approaches* (pp. 289-307). Oxford University Press.

Lemhöfer, K., Koester, D., & Schreuder, R. (2011). When bicycle pump is harder to read than bicycle bell: Effects of parsing cues in first and second language compound reading. *Psychonomic Bulletin and Review*, 18, 364-370. https://doi.org/10.3758/s13423-010-0044-y

Levelt, W. J. M. (1989). *Speaking: From intention to articulation*. MIT Press.

Mazzone, M., & Campisi, E. (2013). Distributed intentionality: A model of intentional behaviour in humans. *Philosophical Psychology*, 26(2), 267-290. https://doi.org/10.1080/09515089.2011.645843

Paradis, M. (1993). Linguistic, psycholinguistic, and neurolinguistic aspects of interference in bilingual speakers: The activation threshold hypothesis. *International Journal of Psycholinguistics*, 9, 133-145.

Paradis, M. (2004). *A neurolinguistic theory of bilingualism*. John Benjamins.

Paradis, M. (2009). *Declarative and procedural determinants of second languages*. John Benjamins.

Pickering, M. J., & Branigan, H. P. (1998). The representation of verbs: Evidence from syntactic priming in language production. *Journal of Memory and Language*, 39, 633-651. https://doi.org/10.1006/jmla.1998.2592

Pickering, M. J., & Garrod, S. (2004). Toward a mechanistic psychology of dialogue. *Behavioral and Brain Sciences*, 27, 169-225. https://doi.org/10.1017/S0140525X04000056

Pickering, M. J., & Garrod, S. (2006). Alignment as the basis for successful communication. *Research on Language and Computation*, 4, 203-228. https://doi.org/10.1007/s11168-006-9004-0

Poulisse, N. (1997). Language production in bilinguals. In A. M. B. de Groot & J. F. Kroll (Eds.), *Tutorials in bilingualism: Psycholinguistic perspectives* (pp. 201-224). Lawrence Erlbaum Associates.

Poulisse, N., & Bongaerts, T. (1994). First language use in second language production. *Applied Linguistics*, 15, 36-57. https://doi.org/10.1093/applin/15.1.36

Purmohammad, M. (2009). *Lexico-semantic errors and code switching in the speech of Mazandarani (Baboli) speakers of Persian* [Master's thesis]. Allameh Tabataba'i University.

Purmohammad, M. (2015a). Grammatical encoding in bilingual language production: A focus on code switching. *Frontiers in Psychology*, 6, 1797. https://doi.org/10.3389/fpsyg.2015.01797

Purmohammad, M. (2015b). Linguistic alignment in L1-L2 dialogue. *Language and Dialogue*, 5(2), 312-333. https://doi.org/10.1075/ld.5.2.07pur

Purmohammad, M., Vorwerg, C., & Abutalebi, J. (2022). The processing of bilingual (switched) compound verbs: Competition of words from different categories for lexical

selection. *Bilingualism: Language and Cognition*, 25(5), 755-767. https://doi.org/10.1017/S1366728921001103

Rickheit, G., Strohner, H., & Vorwerg, V. (2008). The concept of communicative competence. In G. Rickheit & H. Strohner (Eds.), *Handbook of communication competence* (pp. 15-62). De Gruyter.

Ritchie, W. C., & Bhatia, T. K. (2004). Social and psychological factors in language mixing. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism and multilingualism* (pp. 336-352). Blackwell.

Roelofs, A. (1992). A spreading-activation theory of lemma retrieval in speaking. *Cognition*, 42, 107-142. https://doi.org/10.1016/0010-0277(92)90041-F

Sachdev, I., & Giles, H. (2004). Bilingual accommodation. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism and multilingualism* (pp. 353-378). Blackwell.

Sachdev, I., Giles, H., & Pauwels, A. (2013). Accommodating multilinguality. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism and multilingualism* (pp. 391-416). Blackwell.

Sinka, I., & Schelleter, C. (1998). Morphosyntactic development in bilingual children. *International Journal of Bilingualism*, 2(3), 301-326. https://doi.org/10.1177/136700699800200304

Treffers-Daller, J. (2009). Code-switching and transfer: An exploration of similarities and differences. In B. E. Bullock & A. J. Toribio (Eds.), *The Cambridge handbook of linguistic code-switching* (pp. 58-74). Cambridge University Press.

Vaid, J., & Frenck-Mestre, C. (2002). Do orthogonal cues aid language recognition? A laterality study with French-English bilinguals. *Brain and Language*, 82, 47-53. https://doi.org/10.1016/S0093-934X(02)00008-1

Walters, J. (2005). *Bilingualism: The sociopragmatic-psycholinguistic interface*. Lawrence Erlbaum Associates.

Wei, L. (2013). Conceptual and methodological issues in bilingualism and multilingualism research. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism and multilingualism* (2nd ed., pp. 26-51). Blackwell.

Unpacking My Experience as an English Teacher in Turkey: An Autoethnographic Perspective

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Abstract

Identity studies have gained ground in applied linguistics and many convention-al research areas are explored under the more inclusive term of identity. Due to the fluidity of identity, important life events including immigration play a major role in (re)construction of the identity of teachers. In this autoethnographic research, my identity positions as an Iranian English teacher in Turkey are re-counted. Employing autoethnography research, I use my reflection, diary, and records of my social media communication to recount the related events. While having my professional identity at the focal point, I will recount social, cultural, and even political narratives which might have affected the reconstruction of my identity. The reflection mainly includes narration of happenings at the school I used to work at, which was managed in a stricter way than other schools. There are also explanations about areas where I needed to show openness to adapt myself to the new roles in the school, while at some points I was more comfortable with being a foreigner than making efforts to blend into the new context. It also includes cultural and social differences from those in my hometown ranging from simple greetings to major behavior of the society toward a crisis that made the process of full integration not easily achievable. Finally, there is a reflection on some distinctive features that I observed over the period of my stay in Turkey. Encouraging teachers to keep a diary journal can be the main implication for classroom practice.

1. INTRODUCTION

The summer of 2019 is drawing to an end and I am sitting in my soon-to-be-rented-out apartment in the center of Tehran still unsure about work in another country. I am planning to travel to Turkey, the land of tea and the majestic Hagia Sophia, find a teaching job, and live there permanently. The thought of a new life in Turkey was racing through my mind, and since it was my very first time there, I was a bit confused but excited. I just thought gaining some general knowledge about the new destination could be a good way to relieve the stress one usually has when entering a new country. My knowledge of Turkey had been formed by my rudimentary study of some Wikipedia articles about the history, literature, and social life of Turks and the status of

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foreigners in this country. I knew that among the countries in the region, Turkey has been one of the most welcoming countries for vacationers and job seekers. That was something that made me gain confidence about the decision. As for cultural differences, I was inclined to believe that it would not be a serious issue since Iran and Turkey have long had historical commonalities. My purpose was to stay in Turkey for a long time, so I knew I should do my best to gain as much understanding as possible about Turks and their life. Integration was not bound to gaining knowledge about them, but some degree of openness to accept differences as culture is not just characteristics of a group of people, but relations and interactions among people and groups (Abdallah-Pretceille, 2003). Therefore, I was determined not to stubbornly hold onto norms I had gained knowledge of, but to do my best to show openness and respect and then find an intermediary role between the two cultures. This can help one experience a smooth transition into the new context by grasping differences while preserving their unique cultural features; something referred to as adaptation (Brown, 1980). I aimed to be cognizant of cultural differences, analyze them, and apply them if necessary, to have a potential acceptance into a new culture. With an awareness of the dangers of being an immigrant, the most blatant of which is racism, I was determined to avoid disrespecting differences, but to enjoy them. That necessitated forming new identities affected by the new culture as experiencing a new culture can help one reconsider some of their old ideas, and probably form a new identity.

The study of the integration and construction of ethnic and cultural identity of English teachers in their practice in the classroom in the new context is not a widely explored issue (Ajayi, 2011). However, it can greatly shed light on identity studies since identity is affected by the socialization of the person which is through the experiences in the past (Block, 2017). My reflection is to make an attempt to see the differences between the two cultures and then observe whether these differences lead to a change in the identity of the teacher at work, and what new roles and duty does the teacher adopt due to identity changes. Although mostly about my job, my reflection can include out-of-work social interactions to help me provide a better picture of my life in Turkey. My reflective practice is aimed at answering the following question:

How has my professional identity been (re)constructed as an Iranian English teacher in Turkey?

Identity

Studies in anthropology, sociology, as well as applied linguistics have turned attention to identity constructions. The most widely used theory to lead the studies of both learners and teachers is poststructuralism, which was the result of the birth of postmodernism (Bakhtin, 1981, 1984, 1986). The perspectives falling under the poststructuralism theory reject the unitary idea of identity which views identity as easily identifiable categories, such as nationality, race, gender, religion, etc. Instead, it sees language as forms interdependent with the speaker of the language where speakers in a given situation create meaning in a dialog (Norton & Toohey, 2011). The meaning is created through the understanding of the person about their relationship to the world which is affected by time and space (Norton, 1997). It is about how in an interaction, people position themselves and are positioned in a social, historical, and cultural context (Block, 2009; Duff, 2012; Norton, 2010; Norton & Toohey, 2011). The issue of positionality in a given situation forgoes the value-laden nature of identity and sees the present group as the community which shapes a person's identity, therefore, identity in a sense is "to which group do I belong?" (Hofstede et al., 2010). That means people can change their identities over a lifetime and can hold multiple identities (Hofstede et al., 2010). Having poststructuralism as the leading theory of my autoethnography, I try to see the changes in my identity through the positions I have adopted once faced with new educational, cultural, or social incongruities in a given context.

The most important aspect of my life in Turkey was my job, so my identity as a teacher of English is supposed to be affected by interactions and be constructed or reconstructed accordingly. That is because we all develop identities at work, and just as the identity in the general sense, one's professional identity needs to adapt itself to the new situation. I was not sure whether what I had learned at the university in Iran and what I had practiced as a teacher of English at one of the best language schools had made me able to call myself a professional in the field. I was not sure whether I would again enjoy my students' learning, the same popularity, and the same support from the management. To defeat my apprehension and prevent myself from prejudgment, I just rested on the final idea that as the last resort: all I need to do is to give myself free rein and develop a new professional identity. This type of identity is referred to as the self-image which we present as being a teacher (Burn, 2007), and it consists of a teacher's personal and professional experience and also the interaction of personal experiences and 'the social, cultural, and institutional environment' (Sleegers & Kelchtermans, 1999, p. 579). In other words, I could not claim success provided that I just intended to be myself, but my surroundings were bound to play an important role in shaping my new identity. Zare-ee and Ghasedi (2014) list several factors which define professional identity:

"…historical factors related to personal experiences such as early childhood experiences or early teacher role models; sociological factors related to what surrounds a prospective teacher, what parents expect of her, or where she stands compared to a native speaker; psychological factors related to the significance of self-perception in teacher professional identity formation; and cultural factors related to (student) teachers' perceptions and notions of the professional community in their geography, of government policies, of language education policies, and of power and status issues" (p. 1993).

At work, normative expectations and the degree of openness shown by the teacher are effective factors in the move toward the formation or reformation of the teacher's professional identity (Reynolds, 1996). In addition, this identity is affected by the context in which the teacher is working. It is "being recognized as a certain 'kind of person', in a given context" (Gee, 2001, p. 99). The context-embeddedness of identity makes it an ideological and historical matter (Barkhuizen & Mendieta, 2000) which along with values and practices are rooted in history (Hofstede et al., 2010). When a teacher's discourse community changes, they form a new aspect of themselves arising from transactions between their goals, beliefs, their self-image, and the limitations and opportunities in their social and historical context (Akkerman & Meijer, 2011; Beauchamp & Thomas, 2009). My identity reconstruction started once I felt myself in a new context where the new image demanded to build the required expertise, beliefs, perceptions, and values adjusted to the sociocultural demands of the context and teaching profession in Turkey. Such a change is a requisite to walk on the path toward expertise, though it might cause reconsideration of one as a teacher and might even turn into some tension. Here is an expert's idea on this matter:

> "Teaching is the embodiment of one's knowledge, skills, beliefs, and practices into an appropriate teacher identity…there is always the possibility that one will face tensions between one's teaching and social identities, [and] these tensions keep the person evolving as a teacher, responding to one's changing identities and values, as one brings them to inform teaching practice" (Canagarajah, 2017, p. 69).

As an example study that shows the importance of context in limiting the agency of the teacher, I can refer to the research on an ethnically Spanish teacher of Spanish language born in the United

States (Kayi-Aydar, 2015). While at school, in her neighborhood in a Spanish-speaking community, she could practice her agency, but it was difficult for her at college. That is because she was positioned as an ethnic and linguistic minority as race, ethnicity, and non-nativism play roles in the teacher's agency. It confirms the poststructuralist concept of identity where context embodied in the change of job and place of work influences the teacher's professional identity. The analysis of narratives showed that her race as well as the categories that she had made (to which group do I belong) caused her to be distanced from the White teachers as well as those non-white teachers as she found herself not sharing any of these traits. It all ended up with her complete withdrawal from the profession. As for me, race did not seem to be a major issue as I believed sharing the same racial categories with Turks would have no discriminatory consequences. However, the change in the context of work can result in a change in identity and the context is not bound to race only. However, every individual is born with certain identities (gender, race, complexion, etc.) which act as pigeonholing criteria for the teacher. Such views are known as essentialist views which can create serious obstacles to the better functioning of immigrant teachers. This is shown in the study about two Taiwanese teacher students as international speakers of English who are vying for the approval of their legitimacy as teachers of English over a two-year Master of Arts program in TESOL (Golombek & Jordan, 2005). Despite their confidence in their abilities as teachers of English, the teachers are identified based on their race rather than their knowledge of the subject matter. However, the authors report innovative strategies applied by these teachers to combat native speakerism norms and reposition themselves as legitimate teachers. Gaining enough knowledge about students and the context of work is found to be effective in the battle against the long-held pseudo-belief of native speakerism. In spite of the idea of associating proficiency and competency in teaching to the place of birth which can damage the professional identity of a teacher, other numerous factors effective in teaching such as rapport, and knowledge of teaching can always come to help a non-native teacher of English.

The reconstruction of the identity I am trying to document is relatively similar to the experience of Wenying traced in a case study by Sun (2012). Wenying is a Chinese teacher of English whose first year of practice in New Zealand is observed to discover the close relationship between her identity and her knowledge. Wenying's cultural heritage had a strong influence on her performance as in her culture, the teacher's performance occupies the focal point and the student's learning falls into the second priority. Wenying's teaching is characterized by "the careful presentation of clear models for students to follow; emphasis on memorization; step-by-step repetition, reproduction, and recitation." (p. 765). That proves that in this new country with a remarkable cultural distance from her country, she was trying to stick to her identity as a Chinese teacher, which was reflected in her performance as a teacher. Finally, she aimed to make sure that 'everything goes smoothly', which is driven by an idea rooted in her heritage culture. My case differs from Wenying's in terms of the relative cultural proximity of my homeland and host country. Now, the time is ripe to have a short description of the country where my professional identity is tracked, and how Turkey can be valuable to me.

Turkey

Turkey is the land of beautiful seas and beaches, heaven for clothes lovers, and a perfect destination for lax Muslims. Once in Turkey, visitors can savor every mouthful of the delicious kebabs and have great moments over sips of traditional drinks. Turkey is a kinescope of architectural feats reminiscent of shahs and their luxury. A trip around Turkey is a raree-show of the first human settlements on earth, Byzantine civilization, and Ottoman architecture. As an Iranian, one can enjoy entering the country without any visa restrictions. While many countries subsumed under Western block impose entry restrictions for Iranians, thanks to two old friends

and leaders of the countries, Ataturk and Reza Shah, Turkey has remained visa-free for Iranians. The country has recently been a haven for English teachers from Iran. I could not find access to the exact number of English teachers from Iran in Turkey, since almost all of them work in private schools and language institutes, but my observation shows a high number of them. Yearlong contracts with accessibility to the best publication companies along with a comparatively high number of English medium schools and universities in Turkey have opened the floodgate for many English teachers from Iran. These factors are enough to convince any English teacher from Iran that life in Turkey can be profitable and joyful.

After three years of living in Turkey, I have decided to have a reflection on the first two years of my work as a teacher of English at a private school to track my identity reconstruction. It can be tracked since identity emerges from the lived experience, past practice, beliefs, and one's own feelings as well as those who have observed them (Barkhuizen & Mendieta, 2000). I am going to recount the contributory role of macro-sociological and ideological context, institutional and community context, more immediate factors as well as my personal identity (Barkhuizen & Mendieta, 2000). These factors are going to be my signposts to direct my narration, but I might deviate from them if needed. Before narrating the account, some points on the way the study was done should be clarified in the next section.

2. METHODOLOGY

Since the present study is a reflective practice of the researcher, it falls under the category of autoethnographic studies. There has been an increase in autoethnography research in applied linguistics over the past decade exploring areas, such as language learning, language teaching, teacher education, language counseling, and immigration, to name a few (Keles, 2022). Autoethnographic research is a reflective practice where ethnographic methods are used to interpret data from one's autobiography in relation to the culture where the main intention is understanding the self-linked to the culture (Chang, 2008). With varying degrees of emphasis on the research process (graphy), culture (ethnos), or self (auto) (Reed-Danahay, 1997), this type of research is carried out under five types of methods of inquiry. For the sake of penning my reflections, I benefit from reflexive or narrative ethnographies. This type of ethnographic inquiry has culture as the main foci of attention, bases the data collection on the author's reflective practice, and gains data from self and interactions (Ellis, 2008). SAGE Encyclopedia of qualitative research (2008) lists some features of autoethnography research as the following: It's usually in the first person and the focus is on a single case and the journey rather than the destination; the convention of writing is more similar to literary writing and is written in episodic form; the reader feels as a 'co-participant' in the dialogue; it includes emotional and bodily details; and the story is to be told and retold rather than theorized and settled. What gains importance in such a type of research is the importance of reflection, which is an essential component of self and sheds light on the recognition of self as an essential component of identity (Antonek et al., 1997). The self-narrative nature of this type of inquiry can be emancipatory for me to break out of the usual frames of qualitative research and take advantage of any literary genre to impart the message.

Data Collection

Like most autoethnographic research, my study uses personal narratives based on memory work as the main data collection tool (see Keles, 2022). As far as interpersonal communication as a data collection tool is concerned, I can reach out to my old colleagues for their assistance. From the team of six English teachers, three Turkish and three Iranian teachers, just one still teaches in that school. But we still see each other, so it is not hard to find them and share old memories. Moreover, textual data accompany me through this journey, since I have been keeping a memoir of my

important life events since July 2017. In addition, social media posts and online conversations (Keles, 2022) can come to the assistance of my evocative practice. The curiosity of my friends and acquaintances at the beginning of my time in Turkey made me actively share my experience with them mostly through private chats. Thanks to the high-tech world, that data can be retrieved and used here. In addition, my letter of intent, sent to my current university as a requirement for the application, contains valuable data too. It is because this letter is supposed to convince the university why I am going to study there, and I have used my teaching experience as some of the reasons for my decision. Finally, due to the COVID-19 pandemic, our school went fully online for a rather long time. This made us use an intermediary interface to run our classes via ZOOM and WhatsApp applications. I had to save my ZOOM board for a while to use them again in classes where I had to teach the same content. WhatsApp, which was mostly used for communication purposes, has a backup function, which can provide rich data about our communications with the boss, supervisor, colleagues, and students.

I initially formed a chronological outline of my life in Turkey and most specifically of that period of work at the school. My diary was greatly helpful in the reflective work. Afterward, I tried to benefit from the sources mentioned above and fill in the story with more details. The first version was a complete life story with events not related to the purpose of this autoethnography. In the final stage, I tried to have a thorough edit of the work and just include events related to the purpose of the study. At some points, I had to seek the advice of my former colleagues to help me remember some events. In particular, they provided valuable assistance in retrieving the stories related to the main role players like the boss and how he used to behave towards us.

My Language-Learning Background

I became an English teacher because I just loved English in high school, and I became more enthused with it when I did my Bachelor's in English literature and a Master's in English language teaching. After a year of teaching at a private school, I started teaching English as a serious job at a language school in Tehran. My life in Tehran was characterized by long hours of work (about 50 hours a week), and long hours of socializing with friends. Tehran's time had a great influence on both my personal and professional life. Personal influence since it changed me from an overly introverted person with a limited worldview to a more extroverted character with an experience of meeting many local and international people. My activities on Couchsurfing.com opened the doors of my house to many world travelers from various countries who would stay in my place and would share their great stories about their travels around the world. These intercultural experiences broke down the visa and the financial barriers of going to other countries since I had the privilege of having many people from around the world in my tiny apartment. As a novice teacher at work, I focused on implementing as much knowledge of my master's studies as possible in the class. That was not perfectly possible because a main textbook and two others along with a lack of time for a preparation made me just follow the syllabus to be rated as a good teacher. Overall, teaching in Tehran was a great experience as it both helped me build up my expertise through intensive teaching and gave me the chance of attending quite a number of related workshops. After a while, going abroad became a fashion among colleagues and friends, and the fact that we all knew English very well added fuel to the burning desire. Motivated by the fad for flying away, I started thinking about Turkey and ended up working in a private K-12 school. Life in that school presents most of the stories in the current research.

3. MY STORY

I started work at the private school on August 19, 2019. The first day at work started with a brief meeting with members of the English department. The nice informal chat over a small

breakfast at a café reminded me of what I had heard about many city residents in Turkey: Having a small breakfast during weekdays and a big one on weekends is something common. We gave a brief background about ourselves, and then the topic changed to become entirely about our future boss.

Our Boss

We were told that the principal of the school had been a teacher of Turkish literature before; that he had a fallout with his business partner and then opened his own school. Emphatically, they told us that he is too serious when it comes to working. As we were speaking in English, the word 'serious' could have been deciphered in different ways. We later realized that the boss (owner and principal) loves to have everything under control, to comment on educational issues though his expertise is only in the Turkish language, and to behave in a way so that people get petrified. Even worse, he shouts his head off when flying into a fit of rage. Even teachers cannot be released from his rage. To this, excessive disciplinary actions can be added. He is too sensitive about cleanliness to the point of calling students to go back and set their chairs properly after their lunch, having an urgent meeting with the whole school due to some rubbish on the ground, and making 11-year-olds stand still for long hours for being noisy in class, to name a few. Surprisingly enough, there are many students who passionately love the principal and talk proudly about his way of management. For some, he is a hero, and for others, he is a caring father, a kind guardian, though an angry one. Some students had left the previous school just to have him as their principal. That was something I needed to digest. How can one gain a charismatic status while being so strict? Of course, he was a good public speaker and could paint a vivid picture of students' future. He could motivate them to work hard and bear any difficulty. That could have given him a charismatic stance among his fans, of course, there were some students and teachers who despised him. We bore witness to his harsh behavior when his strict rules were violated. He would even lecture us on how to teach, though his knowledge of English was almost nothing. We observed his belief in a unidirectional hierarchy of management which is always a top-down approach. I was even more mesmerized when in the teachers' meeting he alternated between many roles of being a preacher at a time, then a Mr. know-it-all, and then the judge and the jury. With the help of translations, I realized that a series of idea exchanges happen between the boss and the teachers about students, textbooks, syllabi, and anything related to education. However, when the topic of the talk switches to non-educational matters, the boss becomes the sole speaker and the passivity of the audience goes up. Apparently, there still exists the preaching tradition.

Starting Teaching

The first week was set aside for familiarizing new teachers with how things work in the school. The orientation program included meetings about the course book, general information about the status of the students, materials, and paper marking. On the first day of teaching, I stepped into the class and experienced something different from what I had in Iran. The students did not get up upon the teacher's entering the class. Of course, I saw it as a cultural difference and tried to get used to that. The first session was a warm-up event mostly spent on greeting and getting to know each other. Since it was their first time meeting a foreign teacher, students mostly inquired about my reason for choosing Turkey. The chat went on talking about nice things I had found in the country, and how food, economic situation, levels of English, and life is different in my country. One of the nicest topics I enjoyed was talking about food and football, and students expected everyone, even the teacher, to have a favorite. Not having a favorite of either, I was just happy to go for one, and then observe the grimace on the face of students who either showed approval or disapproval of my taste.

When starting teaching, I initially realized that the students were not much different from my students in Iran in terms of class participation, type of questions, and their habit of homework completion. The joy of having such perfect students was soon gone and the novelty of the new foreign teacher wore off when I realized my questions would be left unanswered if I just addressed the whole class. Voluntary participation would not happen as frequently as I expected which was derived from my experience in my country. Once a student meddled in to educate me about that by saying: "teacher! you have to pick someone to answer your question." A question for the whole class would not signify a question in need of an answer. After a while, I could not even hear all the students uttering a reply to the morning greeting. I thought I was not popular among them and consulted with our supervisor about this issue. She asked me further questions to find out that it was just different from what I expected. I had to bear with it. After teaching for about three months, I could see more differences. To remember how my classes went over those months, I sifted through the materials I had prepared at the time, and talked to some of my colleagues, and here is the result of my reflection about the way Turkish students learn English.

Learning Differences

We observed that for Turkish students, explicit grammar teaching seems both tiring and ineffective. Despite their willingness to know about the structures as it is reported by Sari et al. (2017), they have developed the habit of learning them inductively. The examples used to teach grammar had to be derived from an activity they had just done, or examples that pertained well to the real-life situation. For Turkish English learners, learning happens much better if the real-life relevance is explained. That was a major finding enabling me to lessen the degree of rule-based explanation in my grammar teaching. However, that could be just attributed to that school only, since the issue of what Turkish students favor in terms of explicit or implicit ways of teaching is yet to be discovered (Sari et al., 2017). More about grammar is the matter of teaching passive voice structures. For my students, the passive voice seemed an exotic tense, so they struggled to grasp the real logic behind this tense and then use it appropriately. Familiarizing students with the existence of the passive in most languages including their native language was a great help, though the issue was not completely resolved. There should be more studies about the best way for Turkish students to learn the passive voice, and why there is a major problem in learning it. The other teaching issue was the unpopularity of repetition. In Iran, repetition still plays a role in learning, especially in the case of low-level or young learners. In an English class in Iran, when the word 'repeat' is heard, the class automatically turns into a chorus group and starts repeating after the teacher. I have my doubts about whether in theory repetition is viewed as a legitimate way of teaching, but I have seen its efficiency in practice, so I would see no reason not to implement it. Besides, I have found repetition as a way to attract the distracted attention of the students to the lesson. However, after immigration, I needed to develop a new understanding that students are not familiar with repetition, and will only repeat once only when they are briefed about it. As far as pronunciation is concerned, I cannot complain about the pronunciation and intelligibility of the English spoken by Turks. There were just a few long-held ingrained pronunciation mistakes, which I tried to eliminate, but did not gain much success. In some words, /s/ is always /z/ (e.g basic) or /e/ sound is /æ/ (when, then), or *build* is pronounced as it is written /u/ not /i:/. My attempts mostly through hard-earned repetition were not effective since they had become accustomed to pronouncing these in such ways. Then I thought this is what World Englishes means, which does not require setting English spoken in core (Kachru, 1985) as the standard norm. Then the next challenge, however, was to set a limit for the mistakes. For example, when 'do an effort' is a recurring mistake, should I correct it or just see it as Turkish English?

I found the textbook plays a central role in students' level placement, term duration, and final assessment. Extra material development was also based on this centrality, which would regulate the attention paid to each teaching point. My use of repetition was limited by this central role and the benefit of using students' mother tongue could not be backed up by the textbook. In the meeting with the supervisor, she did not seem to be a fan of these strategies since the textbook does not support them. However, my foreignness was a great pretext to benefit from translanguaging. If the meaning of a word were difficult to understand, for example, I would ask for a translation in Turkish. Sometimes an argument would ensue since an exact translation could not be found. I think I used my status as a foreign teacher well to have a critical look at some points.

A Critical Incident

By the end of roughly the sixth month of my life in Turkey, news of Coronavirus had dominated most news headlines. Since Iran was among the first countries to have reported cases infected with the virus, our status at the school was partly smeared. My other two Iranian colleagues and I experienced mild racism. I can remember one of my Turkish colleagues jokingly covering his mouth pretending he was cautious of being infected. In other cases, my Iranian colleague would say that students were whispering 'Corona is coming' in Turkish when she was to enter the classroom. The situation was followed by numerous questions asking why Iran is being hit so hard and what we were going to do about it. This was short-lived and we did not have to shoulder the responsibility of the pandemic anymore when Turkey reported the first case a few weeks later, and fortunately, the patient had not carried it in from Iran. The subsequent news of the status of the pandemic in Turkey made the two countries similar in terms of the number of infected patients, which means if the virus is culturally sensitive, we are similar in that. With online education and the fear of the pandemic, the horrible days dragged along. As for the students, lack of socialization and fearsome situations blurring the outlook had made even the liveliest and the most energetic students into spiritless individuals.

The way the Coronavirus was managed by the government can be said to be adopting a middle-ground policy— letting the wheels of the economy continue turning while closing schools and other public places. However, the way the virus crisis was reacted among people was different from that in my country. In Ankara, people seemed to be warier of the dangers of the virus by more carefully observing quarantine and distancing rules than what I had been informed of the behavior of people in Iran. This behavior can be proof of Turkey's high level of uncertainty avoidance (Hofstede et al., 2010). People in such societies are afraid of ambiguous situations and love to have everything structured to avoid any vagueness. The reports of numerous rules about quarantine and frequent changes in these rules can be signs of the existence of high levels of this index in Turkey, or at least in the city I was residing.

Frequent Changes

The fact that those living in high ambiguous tolerant societies love everything to be structured is confounded when I think about our daily school schedule. In our school, the influence of the pandemic had our teaching schedule change daily. At some points, we did not know what we were supposed to teach a few minutes before the start of the class. The boss would create the next day's schedule the night before and would change it on his own. We went through days when the schedule was announced just five minutes before the class and informed us of the plan of the day for the next 3 or 4 hours only. Of course, no one had to voice their disagreement since the boss had full authority over the schedule. Over the passage of time, students were raising their disagreement about such unplanned manners, but of course, all they could do was to keep their parents informed about that. However, in our school, parent-teacher meetings did not exist, and

parents would only visit the boss from time to time. Not quite frequently, some select teachers on behalf of all teachers would have a meeting with parents. These meetings were only limited to disciplinary problems, the general progress of the child, and the financial situation of the school, nothing deeply educational though.

New Identities

Some abilities that I developed in the school over the two years of working there were to expand my roles beyond teaching only. In Iran, I was only a teacher who would be provided with all the extra materials needed to supplement the book. I was not responsible for preparing any tests and just had the responsibility of marking the papers. In this new job, however, I was also a material developer. We were instructed to prepare materials, have them photocopied, and give them to students as extra homework or class activity hand-outs. The task was extremely difficult considering our weekly hours of teaching. Because of having many classes in a week, it was exhausting to find something on the net or a book, review it based on the level and interest of the students, and then have students complete it. Every day I would go to class with lots of papers in my hand which were mostly the source of stress for the students. Being prepared with haste, the materials were of low-quality graphic design, contained untaught points, and sometimes had vague instructions. Having some busy teachers think about the topic covered, while the time could have been spent on relaxation or the next lesson's preparation, and then preparing their own materials could not have created better results. A reshape in my professional identity was to bear the fact that the teacher should also be a professional material developer, which I adopted unwillingly but felt I would have enjoyed more if I had not been forced to do it under some hectic conditions.

Another issue that is attributed to the whole education system in Turkey, not just my previous school is the high number of timed English proficiency tests (Yuksekogretim Kurulu, YOK). Besides some well-known proficiency tests as requirements for taking a job or finding a way to the university, some exams only approved by a university or a school make the number even higher. The result has been the emergence of exam-oriented educational systems with more tests for critical grades (8 and 11) since they need to be prepared for the high school or university entrance exams. Since English does not carry many points in these tests, the motivation of the students to excel in English goes down, which affects their class participation and homework behavior. As an English teacher, I had to take this new role as a test savvy to gain knowledge about tests, find out about the related testing strategies, and orient my performance in class toward a specific target test.

Unexpected Ending

My second year was nearing the end when I was unexpectedly called into the office of my boss's assistant just to be informed that my time at the school had ended. I was fired. The news came as a complete shock. Obviously, I demanded a reason but received nothing as an explanation. I insisted on getting a reason for their decision so as not to repeat the same mistake in the future. The assistant told me the boss is not in town and once he is back, he will have a meeting with you and two other fired English teachers to talk about details. That meeting was never held. I perused the incident and came up with many different scenarios. The only thing which could give me some solace was that I might have done something which had been seen as a mistake in the eyes of the people at school. They even canceled my work permit without notifying me, which created serious problems since I stayed in the country illegally for a few days. My stay in Turkey was at stake as well as my mental and emotional health. Besides being fully flabbergasted, I would have felt heartbroken, disappointed, and angered if I had not discovered the main reason behind this action.

Unfounded rumors were circulating about my dismissal, but I was never explicitly and officially informed of the reason for this one-sided decision.

4. DISCUSSION

Thinking back through time, despite some challenges and the unfair termination of my contract, I cannot deny the delight of the nice moments I had in school when I would gain some knowledge about a certain cultural matter. The purpose of this section is to recount the reconstruction of my professional identity affected by the novelty of the situation.

I had to come to terms with the fact that in the school meetings, a long monologue by the boss and almost complete silence of the teachers should not be surprising even when the boss asks for comments. However, the informal talk after the meeting with the boss gives the teachers a great opportunity to just bare their souls and talk about whatever they want. The principal's popularity in spite of his army-like method should be justified by referring to Hofstede et al.'s (2010) Power Distance Index in which Turkey has a relatively high status. In these societies, people of higher rank believe in their being in the possession of an unlimited degree of power, and those of lower ranks are expected to pay full obedience. Here, the direct confrontation at a meeting can be seen as undermining the power of the boss, thus a better option would be an off-meeting chat. The purpose of meetings in such contexts is what Hofstede et al. (2010) see as an opportunity for colleagues to socialize and for bosses to show their assertions. However, this power distance is not seen in the classroom, as I expected the students to stand up when I would enter the class. I had to change my expectation and attribute this presupposition to the education I received in my country. From the very first grade, we were demanded to stand up and chant some slogans in support of our religion and important figures. We saw it as a sign of respect and continued doing it throughout our years of schooling. Even at university, the habit stayed with us and just the chanting was not performed. Since Turkish and Iranian cultures do not differ significantly in terms of the Power Distance Index (Hofstede et al., 2010), the difference should be more related to rituals formed over the years rather than culture in the sense of emanating from values.

As far as respecting quarantine rules and differences between Iranians and Turks are concerned, sociocultural differences between the two cultures drawn from (Hofstede et al., 2010) can explain this difference. Under the index of uncertainty avoidance societies differ from each other in terms of their response to events that are not fully known to the people. It is "the extent to which the members of a culture feel threatened by ambiguous and unknown situations'' (Hofstede et al., 2010, p. 191). Turkey's uncertainty avoidance index is 85 while Iran's is 59 meaning Iranians can be more tolerant when it comes to ambiguity. Since predictions of the post-pandemic world were not possible, we can say it was an extremely uncertain situation. That could explain the over-cautiousness of some people about their health issues.

Changes in my professional identity in the new context included reconsidering my teaching to suit the preference of students. Be it cultural or not, embedding grammar in a real-life situation was the main educational orientation that I was happy to notice and did my best to perform. Gaining the status of being a non-native opened my eyes to the fact that a person's mother tongue can be an asset in a foreign language class. That was a major educational tool in my classes and that could have been experienced differently if I wanted to teach students with the same mother tongue as mine. In addition, my awareness of the World Englishes phenomenon made me assured that some common minor mistakes can be ignored and intelligibility should be the determining factor. I experienced a new type of management, which tends to make everything unpredictable. Preparing myself for a lack of planning and abrupt decisions was something that I had to add to the repertoire of norms in the school. Adopting the role of material and test designer was another

major reconstruction of my identity, something which was not accomplished perfectly at the school, but made me more aware of my desire in preparing materials.

I also discovered that I am not an obedient person as I had always thought, because at some points I thought I could make a better decision than what was imposed on me. Affected by the boss's hegemonic behavior, I believed that there should be opposing views everywhere to benefit from variety. Unanimous agreement on a topic achieved by the boss's attitude can never result in any type of progression at an educational institute. More importantly, there was cultural variety in our school which could have been harnessed well. Grouping around primary identities in the postmodern era results in an identity crisis (Dervin, 2012), and the ability to benefit from the available complexity is a better solution than reducing it. The experience of three teachers gained from other cultures could have been a great help had our boss acted more democratically. Finally, my professional identity was affected by potential cultural misunderstandings. I suppose the decision to end my employment at the school could have been colored by something related to culture; something which always can play a role when it comes to having the status of foreignness.

Aside from work-related issues, I cannot claim success in establishing a new identity including my values, norms, rituals, and practices (Hofstede et al., 2010), things defining culture, and those of the host country. I was open to experiencing new horizons in Turkey and was determined to find my way among locals, but I have not been successful in getting fully integrated into Turkish culture. I identify myself as an Iranian, though I have come to the understanding that being fully Iranian cannot bring success at work. But once I leave the workplace, I feel more comfortable when I am in the Iranian community. Cultural differences are always beautiful and are the source of variety in our lives, but cross-cultural issues cannot be assumed as a combination of these beauties, but sometimes, alas, a clash of such beauties. In the present world, with an influx of immigrants and travelers going around the globe, the matter of cultural clash is still an unresolved issue.

5. CONCLUSION

I have tried to narrate my two-year life as a non-native teacher of English at a private school in Turkey. I have gone through identity reconstructions that made me more aware of the new environment in terms of educational matters, and more knowledgeable about myself as an immigrant. The new rise in immigration has caused an increase in the number of foreign language teachers. Their autoethnographic account can greatly help those who might be willing to follow in their footsteps. Their stories as someone who has lived the experience, and narrated it as the person in charge of teaching as well as research can be a valuable contribution to the scholarly work. For me, this reflective work helped a lot in analyzing the changes I have gone through to see whether I am still the same teacher I used to be or have been affected by the demands of the job. Narrating one's life story through narration either for personal use or research purposes can help one practice reflective teaching.

I do not know whether I should call myself lucky or not to have started work in a school that for the most part did not follow mainstream education in Turkey. My experience was exceptional here because the rules, regulations, and authorities at the school made me encounter even more cultural shock. After three years of working in Turkey's educational institutions, I still see people shocked when I talk about my previous workplace. That shows that the case I narrated here, especially about poor planning, harsh behavior of the principal, long study hours for the students, and my mysterious sack cannot be attributed to other schools in Turkey.

References

Abdallah-Pretceille, M. (2003). *Former en contexte hétérogène. Pour un humanisme du divers*. Anthropos.

Ajayi, L. (2011). How ESL teachers' sociocultural identities mediate their teacher role identities in a diverse urban school setting. *The Urban Review*, 43, 654-680. https://doi.org/10.1007/s11256-010-0170-x

Akkerman, S. F., & Meijer, P. C. (2011). A dialogical approach to conceptualizing teacher identity. *Teaching and Teacher Education*, 27(2), 308-319. https://doi.org/10.1016/j.tate.2010.08.013

Antonek, J. L., McCormick, D. E., & Donato, R. (1997). The student teacher portfolio as autobiography: Developing a professional identity. *Modern Language Journal*, 81(1), 15–27. https://doi.org/10.1111/j.1540-4781.1997.tb01624.x

Bakhtin, M. (1981). *The dialogic imagination: Four essays by M. M. Bakhtin*. University of Texas Press.

Bakhtin, M. (1984). *Problems of Dostoevsky's poetics* (C. Emerson, Trans.). University of Minnesota Press.

Bakhtin, M. (1986). *Speech genres and other late essays* (V. McGee, Trans.). University of Texas Press.

Barkhuizen, G., & Mendieta, J. (2020). Teacher identity and good language teachers. In C. Griffiths & Z. Tajeddin (Eds.), *Lessons from good language teachers* (pp. 3-15). Cambridge University Press. https://doi.org/10.1017/9781108774390.004.

Beauchamp, C., & Thomas, L. (2009). Understanding teacher identity: An overview of issues in the literature and implications for teacher education. *Cambridge Journal of Education*, 39(2), 175-189. https://doi.org/10.1080/03057640902902252

Block, D. (2009). Identity in applied linguistics: The need for conceptual exploration. In L. Wei & V. Cook (Eds.), *Contemporary applied linguistics* (1st ed., pp. 215-232). Continuum.

Block, D. (2017). Journey to the center of language teacher identity. In G. Barkhuizen (Ed.), *Reflections on language teacher identity research*. Routledge.

Brown, H. D. (1980). The optimal distance model of second language acquisition. *TESOL Quarterly*, 14(2), 157-164. https://doi.org/10.2307/3586310

Burn, K. (2007). Professional knowledge and identity in a contested discipline: Challenges for student teachers and teacher educators. *Oxford Review of Education*, 33, 445-467. https://doi.org/10.1080/03054980701450886

Canagarajah, S. (2017). Multilingual identity in teaching multilingual writing. In G. Barkhuizen (Ed.), *Reflection on language teacher identity research* (pp. 67-73). Routledge.

Chang, E. (2008). *Autoethnography as method*. Left Coast Press.

Dervin, F. (2012). Cultural identity, representation and othering. In J. Jackson (Ed.), *The Routledge handbook of language and intercultural communication* (pp. 181–194). Routledge.

Duff, P. (2012). Issues of identity. In A. Mackey & S. Gass (Eds.), *The Routledge handbook of second language acquisition* (pp. 410-426). Routledge.

Ellis, C. S. (2008). Autoethnography. In L. M. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (1st and 2nd ed., pp. 48-51). SAGE.

Gee, J. P. (2001). Identity as an analytic lens for research in education. In W. G. Secada (Ed.), *Review of research in education* (25th ed., pp. 99–125). American Educational Research Association.

Given, L. M. (Ed.). (2008). *The SAGE encyclopedia of qualitative research methods* (Vols. 1-2). SAGE Publications, Inc. https://dx.doi.org/10.4135/9781412963909

Golombek, P., & Jordan, S. R. (2005). Becoming "black lambs" not "parrots": A poststructuralist orientation to intelligibility and identity. *TESOL Quarterly*, 39(3), 513–533. https://doi.org/10.2307/3588492

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations software of the mind: Intercultural cooperation and its importance for survival*. McGraw-Hill.

Kachru, B. (1985). Standards, codification and sociolinguistic realism: English language in the outer circle. In R. Quirk & H. Widowson (Eds.), *English in the world: Teaching and learning the language and literatures* (pp. 11-36). Cambridge University Press.

Kayi-Aydar, H. (2015). Multiple identities, negotiations, and agency across time and space: A narrative inquiry of a foreign language teacher candidate. *Critical Inquiry in Language Studies*, 12(2), 137-160. https://doi.org/10.1080/15427587.2015.1032076

Keles, U. (2022). Autoethnography as a recent methodology in applied linguistics: A methodological review. *The Qualitative Report*, 27(2), 448-474. https://doi.org/10.46743/2160-3715/2022.5190

Norton, B. (2010). Language and identity. In N. Hornberger & S. McKay (Eds.), *Sociolinguistics and language education* (pp. 349-369). Multilingual Matters.

Norton, B., & Toohey, K. (2011). Identity, language learning, and social change. *Language Teaching*, 44(4), 412-446. https://doi.org/10.1017/S0261444811000309

Reed-Danahay, D. (1997). *Auto/ethnography*. Berg.

Reynolds, C. (1996). Cultural scripts for teachers: Identities and their relation to workplace landscapes. In M. Kompf, W. R. Bond, D. Dworet, & R. T. Boak (Eds.), *Changing research and practice: Teachers' professionalism, identities and knowledge* (pp. 69–77). The Falmer Press.

Sari, E., Yagiz, O., & Konca, M. Y. (2017). Turkish academics' and students' views of English grammar teaching: Explicit or implicit? *Journal of Education and Practice*, 8, 121-132.

Sleegers, P., & Kelchtermans, G. (1999). Inleiding op het themanummer: professionele identiteit van leraren [Professional identity of teachers]. *Pedagogisch Tijdschrift*, 24, 369-374.

Sun, D. (2012). "Everything goes smoothly": A case study of an immigrant Chinese language teacher's personal practical knowledge. *Teaching and Teacher Education*, 28(5), 760-767. https://doi.org/10.1016/j.tate.2012.03.002

Yuksekogretim Kurulu (YOK). (n.d.). *Council of Higher Education, Turkey*. https://www.yok.gov.tr/

Zare-ee, A., & Ghasedi, F. (2014). Professional identity construction issues in becoming an English teacher. *Procedia - Social and Behavioral Sciences*, 98, 1991-1995. https://doi.org/10.1016/j.sbspro.2014.03.633

How to Enhance EFL Students' English and Persian Argumentative Performance: What Does Explicit Argumentative Teaching Tell Us?

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Abstract

The studies on L2 argumentative writing have surveyed different dimensions of learners' argumentative behavior and performance. However, less attention has been given to the strategies and techniques enhancing students' argumentative repertoire. As such, the current study, which the design was repeated measures ANOVA, taking a pedagogy-based perspective, examined the argumentative writing behavior, introduced by Toulmin as Toulmin's model, of 30 Iranian IELTS candidates before, during and after the instruction in both English and Persian languages. The sample questions were of the previous IELTS Writing part 2 essays from a real test by Cambridge University Press, chosen by 3 IELTS instructors in the Institute to meet the research objectives. To this end, 180 IELTS Task 2 argumentative essays were written by 30 volunteers, each having to write 6 essays with at least 250 words (Persian and English). As for the stu-dents' English and Persian argumentative writing performance, the results indi-cated that there were significant differences between the EFL learners' overall means on argumentative tests in both languages. The results demonstrate that a sound pedagogy in argumentation can both influence the use of argumenta-tion elements in both English and Persian written texts. The pedagogical impli-cations for writing instruction and argumentative writing are discussed.

1. INTRODUCTION

Argumentation has an extended history in the scientific fields (Aristotle, 1991; Toulmin, 1958; Wilder, 2005) and a shorter one can be found in cognitive psychology (Britt et al. 2007; Britt & Larson, 2003; Larson et al., 2009; Voss et al., 1993; Wiley & Voss, 1999). The term 'argument' is used in a number of ways in educational contexts, which flows in a continuum from the philosophical construct (Toulmin, 1958, 2003) to varied writing practices (Mitchell et al., 2008). For example, Toulmin's (1958) model of argumentation and its variations considered arguments

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as claims supported by data and they were connected by warrants, such as broad universal statements authorizing the link between claim and data.

As highlighted in the literature, producing sound argumentative writing is challenging and, at times, demanding. This is notable for EFL learners who might have numerous problems producing academic arguments in their required English essays. Such inadequacy in producing solid argument accounts might be attributable to various factors such as lack of preparation, explicit pedagogy, and L1-L2 interference (see Abdollahzadeh et al. 2017). Besides these challenges, some of the studies have addressed the nature of argumentative writing and its complicated nature. For example, students may then confirm that in producing claims, they basically need to summarize their claims to achieve the objective of convincing audiences without providing supporting evidence or changing their own or others' standpoints on an issue. To view it in another perspective, the ability to identify the underlying argument, and its claims, warrants, and evidence in writing, is a critical skill for academic success (Abdollahzadeh, et al. 2017; Graff, 2008; Hillocks, 2011; Kuhn, 2008). Additionally, Wiley and Voss (1999) proposed that producing written arguments helps individuals combine and deepen the comprehension of texts. One of the key and complicated elements of argumentative writing is the ability of the students and learners to produce counterarguments to know the opposing view point of the writer and how they can develop such cases and support them. Counterarguments are significant for two reasons: First, according to O'Keefe's (1999) meta-analysis results, texts considered and rebutted counterarguments were more persuasive than texts that did not. Second, many models of good thinking involve the ability to reflect and evaluate alternative perspectives (Baron, 2000; Scriven, 1976). However, the related studies highlighted students' inability to produce counterarguments and rebuttals in their argumentative tasks (Abdollahzadeh et al., 2017). On the other hand, there are some empirical studies proving that the key element for this lack of preparation and inadequacy is the different rhetorical systems between students' first language and the second or foreign language and the negative transfer they can result (Connor, 1987; Edelsky, 1982; Kaplan, 1966).

Nevertheless, research has revealed that, with ongoing academic instruction, EFL students are able to solve many of the above-mentioned issues (Connor, 2001; Grabe & Kaplan, 1989, 1996; Kaplan, 1987, 2001; Wang & Wen, 2002). Providing remedies for this issue is mostly related to the contributory role of writing instructors who are in quest for suitable teaching methodologies to spread appropriate materials and appropriate required course books to develop the EFL students' writing techniques and their argumentative performance. Although teachers may emphasize the importance of argumentative writing, a key element to obtaining academic knowledge, they are often cautious of introducing what may evolve into conflict and combative debate (Johnson & Johnson, 2009). Hasani (2016) stated that there are some students who are required to be instructed explicitly and to move towards contextual instruction. "…we need to construct and improve upon teaching strategies which takes care of student with difficulties, especially students who have low critical thinking ability" (p. 5).

By the expansion of international relations of Iran in all domains of life, which determined the social order for the training of a new type of specialist communication, an active role must take place in various forms of written communication affairs. The new formation, which is an active intermediator of intercultural communication, should be able to make public speech and writing effectively. Consequently, with the significant role of dialogue systems of international communication, the intermediator should possess the presentation skills of public argumentative speech in circumstances of intercultural professional interaction. In the scientific field, the notion of "presentation competence" was revealed, which is reflected as a fundamental factor of intercultural communicative competence. The efficiency of public speech, employed on the basis

of presentation competence, is principally determined by the ability to argue one's speech (Nurhayati, 2018). This is also generalizable to producing sound written argumentation to make communication as effective as possible. Though, there are still very few studies in this field that are in the quest of the impact of teachers' professional development focusing on argumentation, especially in the area of pre-service and in-service teacher training programs. Likewise, the effect of teaching argumentative writing on students' performance in L1 is scarce given the nature of language transfer and its related issues in L2 writing, notably in argumentative writing courses (see Abdollahzadeh et al. 2017).

In this study, we initially describe whether argumentation instruction has any effects on boosting students' performance from pre-test to post-test. In the IELTS course books, the notion of argumentation has been implicitly taught whereas the aim of the researchers is to change this implicit instruction to explicit. In search of investigating the most appropriate instruction, Yeh (1998) disputed the usefulness of explicit over implicit teaching methods and found that the former gave better results in terms of student writing development than the latter. A study organized by Horowitz (1986) specified expressively better performance by a group that was given reading and writing instruction with text-structure patterns than a group that received only reading instruction. Leitão's (2003) study on how children aged 8-12 and college students in their first year were taught to write arguments through an argumentative sequence of introduction, viewpoint, supporting element, counterargument and reply (I, V, S, C, R) further showed how the students through explicit instruction could detect and integrate counterarguments and found difficult and undervalued elements into their texts. Although these studies have highlighted the centrality of L2 argumentative writing, they did not provide the effect of teaching explicit argumentative writing under the banner of the modified Toulmin model developed and practiced by Qin and Karabacak (2010) on students' English and Persian argumentative performance.

2. LITERATURE REVIEW

Second and foreign language writing have advanced increasingly in the recent years, and it is the strategies used by writers which have been one of the most influential factors in the process and product of writing. One of the pioneers who worked on ESL writing strategies was Arndt (1987), who proposed eight categories of "*planning, global planning, rehearsing, repeating, rereading questioning, revising, and editing*" and coded the strategies that the students applied in their writing (as cited in Mu, 2005, p. 6). In many cases, critical thinking and argumentation are often interchangeably used in educational research settings, which the former is regarded as a dispassionate analysis of arguments, including some general skills such as questioning, empathy, and critical detachment, that have straightforwardly been developed by engaging in argumentative discourse (Walton, 1989). Likewise, argumentative writing becomes more "critical" when the following reasoning skills are apparent: the construction of valid arguments, counter-arguments, and the relevant use of evidence. In the research done on Japanese ESL students' writing strategies, Sasaki (2000) introduced eight major categories of "*planning, retrieving, generating ideas, verbalizing, translating, rereading, evaluating, and others.*" Cognitive strategies contribute to the employment of metacognitive strategies, which help learners in adapting to their suitable learning process. Metacognitive strategies comprise planning, evaluation, and monitoring, and cognitive strategies comprise clarification, retrieval, resourcing, deferral, avoidance, and verification (Rashtchi et al., 2019).

To look at it from a cognitive development point of view, argumentative skills are normally available from a very young age, but are only being mastered after being explicitly and consciously practiced mostly in educational settings (Kuhn & Udell, 2003). Felton (2004) categorized a human argumentative life-cycle to: three-year-old children who understand and generate the most

important components of an argument; the early school years when children are also able to produce counterarguments or even more complex justifications; finally, adolescents can impulsively implement oral argumentative strategies of persuading purposes. He concluded, research has proven that it is merely through engagement with argumentative practice that argument skills get manifested during adolescence, either in oral or written discourse.

Regrettably, most educational programs globally do not provide lively courses in argumentation, as in some cases it may not seem necessary to teach this skill individually (Zohar, 2007). To put it in a nutshell, argumentation skills among grown-ups are often described as weak and the most effective stage to learn is during school period (Goldstein et al., 2009). Moving on to the university level, there are not many studies being worked on this issue, and even less interferences have been focusing on the promotion of argumentation skills in higher education. Argumentation skills at undergraduate and post-graduate levels are usually limited to critical thinking courses in namely extracurricular programs and not as main courses to be taught (Rowe et al., 2006).

Graff et al. (2014) explained that, "academic writing is a means for entering a conversation" (p. xiii) and, consequently, its goal is to "make sophisticated rhetorical moves" (p.3). Which means that when we write an academic paper, we intend to write for "others", and within a community of "others" (Hoey & Winter, 1983); which means that academic writing must be persuasive, not only for a professor or a supervisor, but also for other scholars reading the work. Such books focus on the mechanisms of linguistic dimension in writing for academic addressees, to be more specific on how to use academic language and conventions in a more accurate manner.

The use of argumentative approach in academic writing has to be linked to argumentative reasoning, and the notion has to be applied in a more practical way. Toulmin proposed a tool for an argumentative structure (1958) and it was named as Toulmin's Argument Pattern (TAP), which he mentioned an argument could be represented as pattern of: a Claim, Data, a Warrant connecting claim and data, and Backings substantiating the warrants. Govier (2013) defined an argument as "a set of claims in which one or more of them –the premises – are put forward so as to offer reasons for another claim, the conclusion" (p. 1). According to TAP, those premises include data (facts on which a conclusion is based), and warrants, (rules of inference linking the data to the claim). In deductive logic, which is the validity of an argument judged from the validity of the premises used to lead to the conclusion: if the data and warrants are true, then the conclusion is true too. Nonetheless, this is not true for the great majority of arguments used in everyday and academic sets. Another type of logic, which is known as defeasible logic, appeals for a more complex criteria of validity, and also draws importance on the additional evidence used to support the premises of the argument (backing).

To talk about the L2 academic settings, quite a few studies have shown that Toulmin's model can be used as an empirical tool to teach argumentative writing in both L1 and L2 settings. Yeh (1998) examined the effect of two types of instruction on the argumentative writing abilities of 116 American students who were in the 7th grade. The two types of instruction were first, explicit instruction in Toulmin's model combined with concept-mapping activities and second, concept-mapping activities only. The above-mentioned research showed better effectiveness for the former type of instruction in grasping argument knowledge and strategies. Varghese and Abraham (1998) studied a group of undergraduate students in a university in Singapore provided students with explicit instruction in the Toulmin model; therefore, students produced more explicit claims and were aware of views from both sides as well. The researches were arranged in L1 and L2, often focused on L2 writing only (Plakans & Gebril, 2013; Weigle & Parker, 2012), or compared a group of L1 writers to a group of L2 writers (Keck, 2006, 2014; Shi, 2004), usually with single tasks. To

verify whether argumentation behavior is learner-specific, and thus transferrable between languages, a within-writer comparison of L1 and L2 writing across multiple tasks is required. Yang and Wang (2017) ascribed the TP patterns deviance to conceptual transfer and tried to explain the deviation from the different ways of thinking and drew a distinction between the Chinese and English languages. They anticipated that this deviation as the transfer of spatiality of the Chinese language had an impact onto the temporality in the English language. Nevertheless, this study contained no statistical analysis or empirical data in support of their claims. Bi (2023) in his study, explored the L1 transfer of TP patterns in Chinese EFL learners' argumentative writing and reached to three points. First, the tests of two potential effects of L1 transfer delivered substantial indication to pinpoint the transfer of the first language in Chinese EFL learners' use of TP patterns in their English writing. Second, the results of comparative statistical analysis displayed that the overuse of constant progression patterns is an influence of L1 transfer on Chinese EFL learner's English writing which makes their writing second-rate in quality of American native speakers. To consider it linguistically, EFL learners regard L1 transfer as a means to express their meaning in their target language. She concluded that "the overuse of constant progression patterns demonstrates the transfer of discrete and chunky characteristics from the Chinese language onto the English language due to the different preferences for spatiality and temporality held by Chinese and English people in their ways of thinking" (p. 368).

Baker (2009) pointed out four types of argumentative situations in classes, but they depended on first, having one or more subjects to discuss; second, having one or more distinct points of view. To highlight the point that teachers need to develop their knowledge related to argumentation to create argumentative situations in their classroom, some researchers have introduced explicit teaching of argumentation in pre-service and in-service science teacher training programs (McNeill & Knight, 2013; Simon et al., 2006; Zembal-Saul, 2009). This is because, from this point of view, the features of argumentation are emphasized by the teacher educator, the pre-service teachers are clarified to be aware of this notion, which can at times boost awareness about using argumentation in the context of teaching.

More precisely, the following questions were probed:

1. Is there any significant improvement in students' performance on English argumentative performance before and after instruction?

2. Is there any significant improvement in students' performance on Persian argumentative performance before and after instruction?

3. METHOD

The current study employed a descriptive quantitative design to be able to explain the effect of explicit argumentative teaching on students' English and Persian Argumentative performance. According to Cresswell (2014), this work is considered quantitative while the following processes like the data collection, analysis, and interpretation of data as well as its written results are included. Similarly, Johnson (2001) indicated that a study can be mentioned as descriptive when its core aim is to give a description to a particular event or phenomenon. This research as well applied an experimental design, as it was explained by Cresswell (2014) that when the target of the author is to investigate in the result section, whether there is an effect that befalls in the intervention applied in the given samples in this case, it is considered as experimental design. Therefore, the researchers in this type of design were able to apply intact sampling which is exploited in a true experiment study.

Participants

30 male and female Iranian graduate and undergraduate learners of EFL (English as a Foreign Language) participated in the study. All of them were English language students in an English Institute (Melal Language Institute) in Alborz province, Iran. The candidates were being prepared for IELTS examination, which is an International English Language Testing System. The volunteers had different language backgrounds, from B1 to C1 (based on CEFR). They all were required to be at least in the B1 level to participate in the IELTS course. IELTS is designed in a four-semester course when students pass their English Diploma, which is a 12-semester course and students are granted a certificate by the institute, and Writing is one of their main skills being focused in order for the candidate to get an acceptable Band Score. One of the issues in such courses is that argumentation is not explicitly taught as a main point for the second writing section. Most of the volunteers were candidates less than 20 as they were all seeking to achieve at least 6.5 in order to continue their education in a foreign country. The participation policy in this study was voluntary, and they were notified about the purpose of the study, and that they could withdraw from the study anytime they wished. Consequently, the final participants were 40 as some of them did not complete the writing task as requested and some withdrew from the study; therefore, the final number was 30, 10 males and 20 females. Due to the Covid-19 pandemic, there were severe limitations to face to face classes and the sessions were arranged via Skype.

Materials and Instruments

The participants were asked to write three IELTS Task 2 essays based on argumentation in English and Persian. To select the appropriate topics, we referred to the online database for IELTS Task 2 Sample questions (www.ielts-practice.org) and selected 10 topics to suit the related research's aim. At the end, the researchers chose 3 topics for the volunteers to write both in English and Persian. It was also assumed that the participants had adequate background knowledge on the issue and were given enough exposure of what writing argumentation is and the general knowledge they were supposed to know related to IELTS. The writing task had simple and clear instructions on how to do the task along with the stages the students had to respond to. The learners were required to develop well-organized arguments explaining and supporting their views, and making their position clear on the given topics. Because the whole course was online and the researchers were not able to see the volunteers, the prompt questions were given to them online and the sample IELTS answer sheet for Writing Task 2 was sent to all students. Some wrote their answers on the actual answer sheet and the rest typed them via Word doc.

Procedures

A consent letter was prepared and given to the students prior to data collection in the study. All the students were briefed individually on the purposes of the study and the data collection procedures. A session was set and the students were reassured that all the data would be kept confidential and used for research purposes only, and it was guaranteed that they could withdraw from the study if they wanted to. All the respondents were given all the materials online due to the pandemic and if they needed assistance, they could come to the institute for better clarification, according to the protocols of that time. Students had to write 3 sets of IELTS writing questions from pre to while and post stage to measure the effect in each process. The students had to write the Persian version of each writing after two weeks in order not to fully remember what they had written on the English version. Students had to write a pre-stage writing without any instructions. After a week, they had their first instruction session that included an overview of IELTS writing Task 2 and the feedbacks for the first writings. The content of the second session was a discussion on what argumentation is and specifically in IELTS writing Task 2. The first two components of

argumentative writing, claim and data, were explained in detail along with examples to clarify the use in IELTS. While they were instructed, they had to write their second essay based on what they were taught about argumentative writing. During the third session, counterargument claim, counterargument data, rebuttal claim and rebuttal data were explained and examples of these 4 elements were given to the class to know how to apply them. After the three-session instruction was over, two weeks passed and the students all wrote their third topic. The number of words had to be a minimum of 250 words in maximum 40 minutes. The collected papers were rated by two experienced IELTS writing instructors and raters both holistically and analytically according to the argumentation scale, the interrater reliability was estimated too. One of the raters was an IELTS mock test examiner at one of the well-known IELTS centers in Tehran and the other rater scored the papers according to the argumentative writing scales. First, the selected scripts (n = 180) were corrected based on the Band descriptors of IELTS, Task Response (TR), Coherence and Cohesion (CC), Lexical Resource (LR) and Grammatical Range and Accuracy (GRA). The Band Scores are from 0 to 9, all the elements were scored and then the mean was given to each writing. The first argumentative writing profile, both English and Persian (cluster 1) showed an increase in score from Pre to Post-test, as the researcher reviewed all the IELTS writing tips once again, only the English version was scored. The second writing profile was corrected based on the argumentation elements. The candidates tended to support their claim(s) and counter-argument claims with either data, dismissing rebuttals and maintaining their position after being instructed. The first writing they wrote was about all they knew related to their previous knowledge they had. In this stage, the number of times each argumentative element was applied had to be analyzed and counted to see whether the instruction had any effect on the argumentative use in both languages.

4. DATA ANALYSIS

Overview

The present study was undertaken in order to compare the EFL learners' performance on writing IELTS test, and components of argumentative writing. The statistical technique of Repeated Measures ANOVA was run to investigate the data collected through this study. Table 1 shows the skewness and kurtosis indices and their ratios over the standard errors. Since the computed ratios were within the ranges of ±1.96 (Raykov and Marcoulides, 2008; Coaley, 2014; Field, 2018; and Abu-Bader, 2021). The normality was checked and it was concluded that the assumption of normality was retained.

Table 1: Skewness and Kurtosis Indices of Normality

	N	Skewness			Kurtosis		
	Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
IELTS1	30	.282	.427	0.66	.177	.833	0.21
IELTS2	30	-.032	.427	-0.07	-.165	.833	-0.20
IELTS3	30	.397	.427	0.93	-.442	.833	-0.53
PreEngClaim	30	.134	.427	0.31	-.408	.833	-0.49
PostEngClaim	30	-.314	.427	-0.74	-.816	.833	-0.98
DelayedEngClaim	30	-.739	.427	-1.73	.333	.833	0.40
PrePerClaim	30	.069	.427	0.16	-1.182	.833	-1.42
PostPerClaim	30	-.498	.427	-1.17	.990	.833	1.19
DelayedPerClaim	30	-.347	.427	-0.81	-.374	.833	-0.45
PreEngData	30	.050	.427	0.12	-.350	.833	-0.42

	N	Skewness			Kurtosis		
	Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
PostEngData	30	-.128	.427	-0.30	-1.331	.833	-1.60
DelayedEngData	30	-.364	.427	-0.85	-1.089	.833	-1.31
PrePerData	30	.266	.427	0.62	-.469	.833	-0.56
PostPerData	30	-.689	.427	-1.61	-.241	.833	-0.29
DelayedPerData	30	-.657	.427	-1.54	.011	.833	0.01
PreEngCounterClaim	30	.133	.427	0.31	-.967	.833	-1.16
PostEngCounterClaim	30	-.355	.427	-0.83	1.518	.833	1.82
DelayedEngCounterClaim	30	-.477	.427	-1.12	-.318	.833	-0.38
PrePerCounterClaim	30	-.052	.427	-0.12	-.953	.833	-1.14
PostPerCounterClaim	30	-.947	.427	-2.22	1.903	.833	2.28
DelayedPerCounterClaim	30	-.337	.427	-0.79	-.267	.833	-0.32
PreEngCounterData	30	-.411	.427	-0.96	.525	.833	0.63
PostEngCounterData	30	-.200	.427	-0.47	-1.600	.833	-1.92
DelayedEngCounterData	30	-.311	.427	-0.73	-1.362	.833	-1.64
PrePerCounterData	30	.026	.427	0.06	-.170	.833	-0.20
PostPerCounterData	30	-.261	.427	-0.61	-.374	.833	-0.45
DelayedPerCounterData	30	-.408	.427	-0.96	-.743	.833	-0.89
PreEngRebuttalClaim	30	-.076	.427	-0.18	-.653	.833	-0.78
PostEngRebuttalClaim	30	-.822	.427	-1.93	-.267	.833	-0.32
DelayedEngRebuttalClaim	30	-.480	.427	-1.12	-1.328	.833	-1.59
PrePerRebuttalClaim	30	.138	.427	0.32	-.317	.833	-0.38
PostPerRebuttalClaim	30	-.611	.427	-1.43	-.510	.833	-0.61
DelayedPerRebuttalClaim	30	-.591	.427	-1.38	-.936	.833	-1.12
PreEngRebuttalData	30	-.201	.427	-0.47	1.450	.833	1.74
PostEngRebuttalData	30	-.686	.427	-1.61	-.470	.833	-0.56
DelayedEngRebuttalData	30	-.796	.427	-1.86	-.327	.833	-0.39
PrePerRebuttalData	30	.281	.427	0.66	1.083	.833	1.30
PostPerRebuttalData	30	-.601	.427	-1.41	-.312	.833	-0.37
DelayedPerRebuttalData	30	-.275	.427	-0.64	-.948	.833	-1.14

Pre = Pretest, Post = Posttest, Eng = English, and Per = Persian.

Exploring First Research Question

Is there any significant improvement in students' performance on English argumentative performance before and after instruction?

Repeated Measures ANOVA was run to compare the EFL learners' means on pretest, posttest and delayed posttest in order to probe the first research question. Table 2 shows the results of the Mauchly's test of sphericity. Repeated Measures ANOVA assumes that the differences between any two means enjoy roughly equal variances. The non-significant results of the sphericity test (W = .978, $p > .05$) indicated that the assumption was retained.

Table 2: Mauchly's Test of Sphericity Total English Tests

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Total English	.978	.611	2	.737	.979	1.000	.500

Table 3 shows the descriptive statistics for the EFL learners on total English argumentative tests. The results indicated that the EFL learners had the highest mean on delayed posttest (M = 124.93, SE = 2.37). This was followed by posttest (M = 121.56, SE = 2.55), and pretest (M = 77.36, SE = 1.78).

Table 3: Descriptive Statistics Total English Argumentative Tests

Emotions	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Pretest	77.367	1.783	73.719	81.014
Posttest	121.567	2.553	116.346	126.788
Delayed posttest	124.933	2.372	120.083	129.784
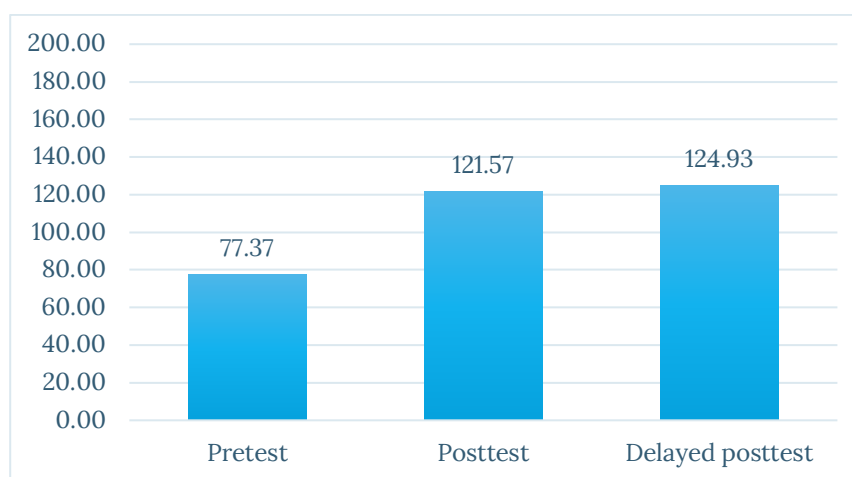
Figure 1: Means on Total English Argumentative Tests

Table 4: Multivariate Tests Total English Argumentative Tests

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's Trace	.973	503.391	2	28	.000	.973
Wilks' Lambda	.027	503.391	2	28	.000	.973
Hotelling's Trace	35.956	503.391	2	28	.000	.973
Roy's Largest Root	35.956	503.391	2	28	.000	.973

The inferential results (F (2, 28) = 503.39, p < .05, pη² = .973 representing a large effect size[*]) indicated that there were significant differences between the EFL learners' overall means on English argumentative tests. Therefore, the null hypothesis is rejected.

Table 5 shows the results of the post-hoc comparison tests. Based on these results, and the descriptive statistics shown in Table 3, it can be claimed that;

A: The EFL learners had a significantly higher mean on delayed posttest (M = 124.93) than pretest (M = 77.36) (MD[†] = 47.56, p < .05).

B: The EFL learners had a significantly higher mean on posttest (M = 121.56) than pretest (M = 77.36) (MD = 44.20, p < .05).

C: There was not any significant difference between the EFL learners' mean on delayed posttest (M = 124.93) than posttest (M = 121.56) (MD = 3.36, p > .05).

Table 5: Pairwise Comparisons Total English Argumentative Tests

(I) Test	(J) Test	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Delayed Posttest	Pretest	47.567*	1.673	.000	44.145	50.989
	Posttest	3.367	1.895	.086	-.510	7.243
Posttest	Pretest	44.200*	1.755	.000	40.610	47.790

*. The mean difference is significant at the .05 level.

Exploring Second Research Question

Is there any significant improvement in students' performance on Persian argumentative performance before and after instruction?

Repeated Measures ANOVA was run to compare the EFL learners' means on pretest, posttest and delayed posttest in order to probe the second research question. Before discussing the results, the assumption of sphericity should be reported. Table 6 shows the results of the Mauchly's test of sphericity. The non-significant results of the sphericity test (W = .892, p > .05) indicated that the assumption was retained.

Table 6: Mauchly's Test of Sphericity Total Persian Tests

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Total Persian	.892	3.188	2	.203	.903	.959	.500

Table 7 shows the descriptive statistics for the EFL learners on total Persian argumentative tests. The results indicated that the EFL learners had the highest mean on delayed posttest (M = 100.16, SE = 2.94). This was followed by posttest (M = 95.00, SE = 3.01), and pretest (M = 80.83, SE = 2.83).

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[*] Partial Eta Squared should be interpreted using the following criteria; .01 = Weak, .06 = Moderate, and .14 = Large (Gray and Kinnear 2012, p 323; and Pallant 2016, p 285).
[†] MD stands for mean difference.

Table 7: Descriptive Statistics Total Persian Argumentative Tests

Emotions	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Pretest	80.833	2.386	75.954	85.713
Posttest	95.000	3.011	88.842	101.158
Delayed posttest	100.167	2.940	94.153	106.181
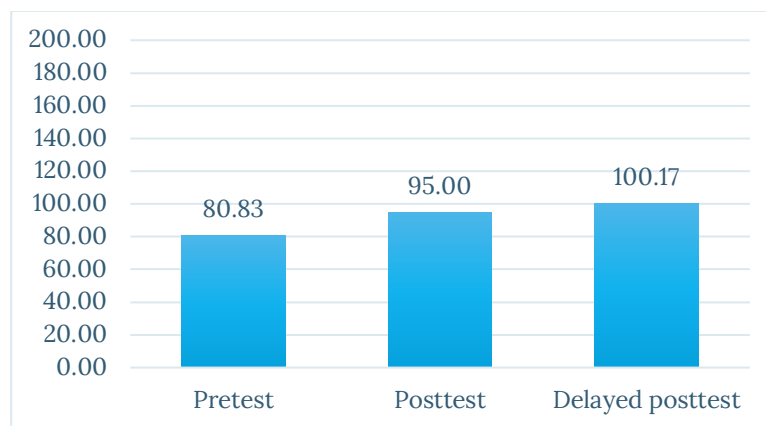
Figure 2: Means on Total Persian Argumentative Tests

Table 8: Multivariate Tests Total Persian Argumentative Tests

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's Trace	.829	67.852	2	28	.000	.829
Wilks' Lambda	.171	67.852	2	28	.000	.829
Hotelling's Trace	4.847	67.852	2	28	.000	.829
Roy's Largest Root	4.847	67.852	2	28	.000	.829

The results (F (2, 28) = 67.85, p < .05, pη^2 = .829 representing a large effect size) indicated that there were significant differences between the EFL learners' overall means on Persian argumentative tests. Therefore, the null hypothesis is rejected.

Table 9 shows the results of the post-hoc comparison tests. Based on these results, and the descriptive statistics shown in Table 7, it can be claimed that;

A: The EFL learners had a significantly higher mean on delayed posttest (M = 100.16) than pretest (M = 80.83) (MD = 19.33, p < .05).

B: The EFL learners had a significantly higher mean on posttest (M = 95.00) than pretest (M = 80.83) (MD = 5.16, p < .05).

C: The EFL learners had a significantly higher mean on delayed posttest (M = 100.16) than posttest (M = 95.00) (MD = 14.16, p < .05).

Table 9: Pairwise Comparisons Total Persian Argumentative Tests

(I) Test	(J) Test	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Delayed Posttest	Pretest	19.333*	1.635	.000	15.989	22.678
	Posttest	5.167*	1.486	.002	2.128	8.205
Posttest	Pretest	14.167*	1.951	.000	10.176	18.157

*. The mean difference is significant at the .05 level.

5. DISCUSSION

The instructor organized the sessions talking about argumentation in an explicit fashion. From pre-test to post-test, we could see a significant rise in the mean of argumentation use, both in Persian and English. Their formal training sessions during a 2-month period showed candidates' directedness towards using argumentation in their essays. To consider a similar aim of improving EFL students' academic arguments, Yeh (1998) carried out a study on 116 non-native middle school students in the US, indicating that a combination of explicit instruction with a 'bridge' and a 'pyramid' heuristic (guide) gave noteworthy improvements in the experimental students' writing and their knowledge transferability to different topics over the control group. Yeh (1998) believed that students stand a cost if they are not guided correctly in writing argumentative essays. Even though the study was carried out on pre-university students, it reveals that explicit instruction in textbooks is lacking for the foreign learner, as we see that argumentation in IELTS courses are not taught explicitly.

The candidates used all the elements of written argumentation being taught in the instruction sessions; however, the extent of applying the components, increased from the pre to post stages. The majority of the essays being scored included merely the basic elements, the writer's opinion (claim) and supporting evidence (data). These elements are the most preferred ones for learners to write as they are the fundamental elements to argumentation (Abdollahzadeh et al., 2017; Lunsford, 2002; Qin and Karabacak, 2010; Varghese and Abraham, 1998). The use of the argumentation elements were quite the same both in Persian and English for each individual topic. Less than half of the argumentative essays applied some form of rebuttals and counterarguments. A plausible explanation might be the implicit explanation of argumentation in IELTS course books and some teachers' lack of experience and awareness of the application of these elements. Counterarguments and rebuttals have a significant role in argumentation structure (Toulmin 2003). The majority of the candidates failed to signify a reflective side related to the topic which could have a better result in the quality of their arguments in their task 2 writing.

The research was based on an integrated assessment framework, both according to substance and structure (Stapleton and Wu, 2015). After the complete analysis, various argumentative behaviors were detected in both the English and Persian version. Obviously, as the instruction sessions took place, the written arguments become more complex and sophisticated. Although the students produced more complex and sophisticated arguments compared to those in the first writing, the students were not able to apply rebuttals with the counterarguments and consequently failed to refute them. With all the instruction sessions taking place and one to one classes for those who needed more instruction, the candidates failed to use the complex nature of the argument-counterargument structure in L2 (Qin and Karabacak, 2010) as well as ''risk avoidance, lack of confidence, and reformulation difficulties in producing argument-counter-argument claims and

supported data'' (Kobayashi and Rinnert, 2008, p. 35). There was an interesting fact that in most of the writings, the number of argumentation elements were quite the same in the L1 and L2. Additional research can help us notice the extent to which transfer of argumentation strategies occurs in L2 argumentative production. The impression of L1 educational and writing culture could be another factor for L1–L2 variations in argumentative development. Most of the students wrote a well-structured essay but this did not guarantee a sound use of argumentative components. Awareness raising can be crucial for both instructors and candidates to make the most in the essays. (Sadler, 2004).

6. CONCLUSION

The findings of this research reveal the effect of argumentation instruction on the L1 and L2 writings. The use of arguments reasoning of the candidates was generally weak in the first set of writings, but as we moved on towards the post-test, the numbers had a significant rise. Applying argumentative skills is a striving educational objective which needs time and practice to master (Means & Voss, 1996); intensive writing programs have to be organized to create abundant opportunities for learners to take part in argumentative practices so that they can justify their claims, and the use of counterarguments and rebuttals (Sampson & Clark, 2008; Braund et al., 2013). This argumentative mediation can develop EFL learners' critical thinking skills as people seem to have a better learning when they argue (Kuhn, 2008), "and thus help them understand the epistemic nature of knowledge and participate more effectively in their respective scientific discourse" (Abdolahzadeh et al., 2017, p. 18). As argumentation has not been taught explicitly in IELTS courses, adding this topic can increase the band score of the students. IELTS instructors can benefit from argumentative writing and teach the topic thoroughly in class as critical thinking should be part of the pedagogy. It is highly recommended for instructors to add this topic to their syllabus and use Toulmin's model in the discursive section.

We chiefly explored the discursive essays of IELTS learners of an English Institute. The volunteers' topical and background knowledge were not investigated in this study. Students can use Toulmin's model in developing their Task 2 writings in IELTS as part of their intensive course. Admittedly, there exist several drawbacks in the study. The number of students was limited and the study took place only in one EFL institute, due to the pandemic, and consequently future studies with more participants and different educational settings are recommended. Additionally, students were only asked to write three topics in two languages, and the number could increase. Future studies could investigate the explicit instruction of Toulmin's argumentation in IELTS course books. Examining these matters was outside the scope of the present study.

References

Abdollahzadeh, E., Amini Farsani, M., & Beikmohammadi, M. (2017). Argumentative writing behavior of graduate EFL learners. *Argumentation*, 31, 641-661. https://doi.org/10.1007/s10503-016-9415-5

Abu-Bader, S. H. (2021). *Using statistical methods in social science research: With a complete SPSS guide*. Oxford University Press.

Aristotle. (1991). *Aristotle on rhetoric: A theory of civic discourse* (G. A. Kennedy, Trans.). Oxford University Press.

Arndt, V. (1987). Six writers in search of texts: A protocol-based study of L1 and L2 writing. *ELT Journal*, 41(4), 257-267. https://doi.org/10.1093/elt/41.4.257.

Baker, M. J. (2009). Argumentative interactions and the social construction of knowledge. In N. Muller Mirza & A.-N. Perret-Clermont (Eds.), *Argumentation and education: Theoretical foundations and practices* (pp. 127–144). Springer-Verlag.

Baron, J. (2000). *Thinking and deciding*. Cambridge University Press.

Bi, X. (2023). L1 Transfer in Chinese EFL Learners' Use of Thematic Progression in English Argumentative Writing. *Theory and Practice in Language Studies*, 13(2), 362-369. https://doi.org/10.17507/tpls.1302.11

Braund, M., Scholtz, Z., Sadeck, M., & Koopman, R. (2013). First steps in teaching argumentation: A South African study. *International Journal of Educational Development*, 33(2), 175-184. https://doi.org/10.1016/j.ijedudev.2012.03.007

Britt, M. A., Kurby, C. A., Dandotkar, S., & Wolfe, C. R. (2007). I agreed with what? Memory for simple argument claims. *Discourse Processes*, 45(1), 52-84. https://doi.org/10.1080/01638530701739166

Britt, M. A., & Larson, A. A. (2003). Constructing representations of arguments. *Journal of Memory and Language*, 48(4), 794-810. https://doi.org/10.1016/S0749-596X(03)00002-0

Coaley, K. (2014). *An introduction to psychological assessment and psychometrics*. SAGE Publications.

Connor, U. (1987). Argumentative patterns in student essays: Cross-cultural differences. In U. Connor & R. B. Kaplan (Eds.), *Writing across languages: Analysis of L2 text* (pp. 57-71). Addison-Wesley.

Connor, U. (2001). Contrastive rhetoric: New directions. [Paper presentation]. The Second International Conference on Contrastive Rhetoric: Linguistics, Culture, and Teaching, The American University in Cairo.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.

Edelsky, C. (1982). Writing in a bilingual program: The relation of L1 and L2 texts. *TESOL Quarterly*, 16(2), 211-228. https://doi.org/10.2307/3586793

Felton, M. K. (2004). The development of discourse strategies in adolescent argumentation. *Cognitive Development*, 19(1), 35-52. https://doi.org/10.1016/j.cogdev.2003.09.001

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.

Goldstein, M., Crowell, A., & Kuhn, D. (2009). What constitutes skilled argumentation and how does it develop? *Informal Logic*, 29(4), 379-395. https://doi.org/10.22329/il.v29i4.2905

Govier, T. (2013). *A practical study of argument*. Cengage Learning.

Grabe, W., & Kaplan, R. B. (1989). Writing in a second language: Contrastive rhetoric. In D. M. Johnson & D. H. Roen (Eds.), *Richness in writing: Empowering ESL students* (pp. 263-283). Longman.

Grabe, W., & Kaplan, R. B. (1996). *Theory & practice of writing: An applied linguistic perspective*. Longman.

Graff, G. (2008). *Clueless in academe: How schooling obscures the life of the mind*. Yale University Press.

Graff, G., Birkenstein, C., & Maxwell, C. (2014). *"They say, I say": The moves that matter in academic writing*. Gildan Audio.

Gray, C. D., & Kinnear, P. R. (2012). *IBM SPSS statistics 19 made simple*. Psychology Press.

Hasani, A. (2016). Enhancing argumentative writing skill through contextual teaching and learning. *Educational Research and Reviews*, 11(16), 1573-1578. https://doi.org/10.5897/ERR2016.2806

Hillocks, G. (2011). *Teaching argument writing, grades 6–12: Supporting claims with relevant evidence and clear reasoning*. Heinemann.

Hoey, M., & Winter, E. O. (1983). *On the surface of discourse*. Allen & Unwin.

Horowitz, D. (1986). Essay examination prompts and the teaching of academic writing. *English for Specific Purposes*, 5(2), 107-120. https://doi.org/10.1016/0889-4906(86)90019-7

Johnson, B. (2001). Toward a new classification of nonexperimental quantitative research. *Educational Researcher*, 30(2), 3-13. https://doi.org/10.3102/0013189X030002003

Johnson, D. W., & Johnson, R. T. (2009). Energizing learning: The instructional power of conflict. *Educational Researcher*, 38(1), 37-51. https://doi.org/10.3102/0013189X08330540

Kaplan, R. B. (1966). Cultural thought patterns in inter-cultural education. *Language Learning*, 16(1-2), 1-20. https://doi.org/10.1111/j.1467-1770.1966.tb00804.x

Kaplan, R. B. (1987). Cultural thought patterns revisited. In U. Connor & R. B. Kaplan (Eds.), *Writing across languages: Analysis of L2 text* (pp. 9-21). Addison-Wesley.

Kaplan, R. B. (2001, March 23-25). *Telepress conference* [Conference presentation]. The Second International Conference on Contrastive Rhetoric: Linguistics, Culture, and Teaching, The American University in Cairo.

Keck, C. (2006). The use of paraphrase in summary writing: A comparison of L1 and L2 writers. *Journal of Second Language Writing*, 15(4), 261-278. https://doi.org/10.1016/j.jslw.2006.09.006

Keck, C. (2014). Copying, paraphrasing, and academic writing development: A re-examination of L1 and L2 summarization practices. *Journal of Second Language Writing*, 25, 4-22. https://doi.org/10.1016/j.jslw.2014.05.005

Kobayashi, H., & Rinnert, C. (2008). Task response and text construction across L1 and L2 writing. *Journal of Second Language Writing*, 17(1), 7-29. https://doi.org/10.1016/j.jslw.2007.08.004

Kuhn, D. (2008). *Education for thinking*. Harvard University Press.

Kuhn, D., & Udell, W. (2003). The development of argument skills. *Child Development*, 74(5), 1245-1260. https://doi.org/10.1111/1467-8624.00605.

Larson, A. A., Britt, M. A., & Kurby, C. A. (2009). Improving students' evaluation of informal arguments. *The Journal of Experimental Education*, 77(4), 339-366. https://doi.org/10.3200/JEXE.77.4.339-366

Leitão, S. (2003). Evaluating and selecting counterarguments: Studies of children's rhetorical awareness. *Written Communication*, 20(3), 269-306. https://doi.org/10.1177/0741088303257507

Lunsford, K. J. (2002). Contextualizing Toulmin's model in the writing classroom: A case study. *Written Communication*, 19(1), 109-174. https://doi.org/10.1177/074108830201900105

McNeill, K. L., & Knight, A. M. (2013). Teachers' pedagogical content knowledge of scientific argumentation: The impact of professional development on K–12 teachers. *Science Education*, 97(6), 936-972. https://doi.org/10.1002/sce.21081

Means, M. L., & Voss, J. F. (1996). Who reasons well? Two studies of informal reasoning among children of different grade, ability, and knowledge levels. *Cognition and Instruction*, 14(2), 139-178. https://doi.org/10.1207/s1532690xci1402_1

Mitchell, S., Prior, P., Bilbro, R., Peake, K., See, B., & Andrews, R. (2008). A reflexive approach to interview data in an investigation of argument. *International Journal of*

Research & Method in Education, 31(3), 229-241. https://doi.org/10.1080/17437270802416911

Mu, C. (2005). A taxonomy of ESL writing strategies. In *Redesigning pedagogy: Research, policy, practice* (pp. 1-10). National Institute of Education, Nanyang Technological University.

Nurhayati, H. (2018). Wisdom values in traditional phrases the Mamuju tribe in shaping this study entitled local the character of society: Antrpolinguistics approach. *Astra Salvensis*, 6(Sup. 1), 207-319.

O'Keefe, D. J. (1999). How to handle opposing arguments in persuasive messages: A meta-analytic review of the effects of one-sided and two-sided messages. *Annals of the International Communication Association*, 22(1), 209-249. https://doi.org/10.1080/23808985.1999.11678963

Plakans, L., & Gebril, A. (2013). Using multiple texts in an integrated writing assessment: Source text use as a predictor of score. *Journal of Second Language Writing*, 22(3), 217-230. https://doi.org/10.1016/j.jslw.2013.02.003

Qin, J., & Karabacak, E. (2010). The analysis of Toulmin elements in Chinese EFL university argumentative writing. *System*, 38(3), 444-456. https://doi.org/10.1016/j.system.2010.06.012

Rashtchi, M., Porkar, R., & Ghazi Mir Saeed, F. (2019). Product-Based, Process-Based, and Genre-Based Instructions in Expository Writing: Focusing on EFL Learners' Performance and Strategy Use. *European Journal of Education Studies*, 6(6), 115-136. https://doi.org/10.5281/zenodo.3445511

Raykov, T., & Marcoulides, G. A. (2008). *An introduction to applied multivariate analysis*. Routledge.

Rowe, G., Macagno, F., Reed, C., & Walton, D. (2006). Araucaria as a tool for diagramming arguments in teaching and studying philosophy. *Teaching Philosophy*, 29(2), 111-124. https://doi.org/10.5840/teachphil200629222

Sadler, T. D. (2004). Informal reasoning regarding socioscientific issues: A critical review of research. *Journal of Research in Science Teaching*, 41(5), 513-536. https://doi.org/10.1002/tea.20009.

Sampson, V., & Clark, D. B. (2008). Assessment of the ways students generate arguments in science education: Current perspectives and recommendations for future directions. *Science Education*, 92(3), 447-472. https://doi.org/10.1002/sce.20276

Sasaki, M. (2000). Toward an empirical model of EFL writing processes: An exploratory study. *Journal of Second Language Writing*, 9(3), 259-291. https://doi.org/10.1016/S1060-3743(00)00028-X(00

Scriven, M. (1976). *Reasoning*. McGraw-Hill.

Shi, L. (2004). Textual borrowing in second-language writing. *Written Communication*, 21(2), 171-200. https://doi.org/10.1177/0741088303262846

Simon, S., Erduran, S., & Osborne, J. (2006). Learning to teach argumentation: Research and development in the science classroom. *International Journal of Science Education*, 28(2-3), 235-260. https://doi.org/10.1080/09500690500336957

Stapleton, P., & Wu, Y. A. (2015). Assessing the quality of arguments in students' persuasive writing: A case study analyzing the relationship between surface structure and substance. *Journal of English for Academic Purposes*, 17, 12-23. https://doi.org/10.1016/j.jeap.2014.11.006

Toulmin, S. (1958). *The uses of argument*. Cambridge University Press.

Toulmin, S. (2003). *The uses of argument* (2nd ed.). Cambridge University Press.

Varghese, S. A., & Abraham, S. A. (1998). Undergraduates arguing a case. *Journal of Second Language Writing*, 7(3), 287-306. https://doi.org/10.1016/S1060-3743(98)90016-5(98

Voss, J. F., Fincher-Kiefer, R., Wiley, J., & Silfies, L. N. (1993). On the processing of arguments. *Argumentation*, 7, 165-181. https://doi.org/10.1007/BF00710663

Walton, D. N. (1989). *Informal logic: A handbook for critical argument*. Cambridge University Press.

Wang, W., & Wen, Q. (2002). L1 use in the L2 composing process: An exploratory study of 16 Chinese EFL writers. *Journal of Second Language Writing*, 11(3), 225-246. https://doi.org/10.1016/S1060-3743(02)00084-X

Weigle, S. C., & Parker, K. (2012). Source text borrowing in an integrated reading/writing assessment. *Journal of Second Language Writing*, 21(2), 118-133. https://doi.org/10.1016/j.jslw.2012.03.004

Wilder, L. (2005). "The rhetoric of literary criticism" revisited: Mistaken critics, complex contexts, and social justice. *Written Communication*, 22(1), 76-119. https://doi.org/10.1177/0741088304272745

Wiley, J., & Voss, J. F. (1999). Constructing arguments from multiple sources: Tasks that promote understanding and not just memory for text. *Journal of Educational Psychology*, 91(2), 301-311. https://doi.org/10.1037/0022-0663.91.2.301

Wolfe, C. R., Britt, M. A., & Butler, J. A. (2009). Argumentation schema and the myside bias in written argumentation. *Written Communication*, 26(2), 183-209. https://doi.org/10.1177/0741088309333019.

Yang, L. F., & Wang, W. B. (2017). A study of the transfer of coherence features by Chinese secondary EFL learners: From the perspective of the difference between English temporality and Chinese spatiality. *Zhong guo wai yu*, 14(1), 68-76.

Yeh, S. S. T. (1998). *Empowering education: Teaching argumentative writing to cultural minority middle school students* [Doctoral dissertation, Stanford University].

Zembal-Saul, C. (2009). Learning to teach elementary school science as argument. *Science Education*, 93(4), 687-719. https://doi.org/10.1002/sce.20325

Zohar, A. (2007). Science teacher education and professional development in argumentation. In S. Erduran & M. P. Jiménez-Aleixandre (Eds.), *Argumentation in science education: Perspectives from classroom-based research* (pp. 245-268). Springer. https://doi.org/10.1007/978-1-4020-6670-2_12.

The Effects of Shared, Interactive, and Independent Writing Strategies on EFL Learners' Writing Accuracy and Complexity

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Abstract
Second Language (L2) writing has always been a matter of difficulty for foreign language learners and an appealing topic for researchers in the field. Following a quasi-experimental method, this study aimed to investigate the comparative effects of shared, interactive, and independent writing on Lebanese EFL learners' writing accuracy and complexity. To achieve this aim, 74 non-Iranian female EFL learners were selected through a convenience sampling technique. The results of the Oxford placement test indicated that their level of English proficiency was intermediate. Afterward, the participants were assigned to three experimental groups (i.e., shared, interactive, and independent writing groups). The syntactic accuracy was gauged in terms of t-units and complexity was calculated based on the number of the words in t-units. The results of statistical analysis manifested that the group which used interactive writing strategies outperformed the other two groups, and no significant differences were found between shared and independent writing groups. Moreover, the performance of the interactive writing group differed significantly from those of the other two groups. Hence, it was concluded that an interactive writing strategy may lead to more accurate and complex writing performance. This study might have implications for language instructors, EFL learners, material developers, and syllabus designers.

1. INTRODUCTION

Writing skill is an important component in language learning and arises in communication in a tangible form (Veramuthu & Shah, 2020). In addition, writing skill is the most complicated fulfillment of the process of language learning (Singer & Bashir, 2004). This skill is naively considered as merely constructing grammatical sentences; however, sentences should be connected to each other by cohesive devices in ways that can be followed by readers (Halliday & Hasan, 1976). In other words, various parts of the text have to work together in a particular context (Carrell, 1982; Witt & Faigley, 1981). Matsuda (2001) found that for most writers – especially less

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experienced ones – it is often helpful to have an explicit understanding of some of the strategies that can be internalized through practice. Therefore, students require instructions that stimulate them to use strategies to be successful in learning independently, or in Wenden's (1998) words, they need conscious instruction about how they should deal with a learning situation.

As Nunan (1999) explained, different genres of writing "are typified by a particular structure and by grammatical forms that reflect the communicative purpose of the genre" (p. 280). Learners should be taught how to use effective composing strategies. The recent shift of attention from what to learn to how to learn necessitates efficient learning and the use of some learning strategies. Of the writing text types, argumentative writing is a genre that is integral in school and beyond. In the same vein, Newell et al. (2011) argued that "The ability to compose high-quality arguments (and their claims, warrants, and evidence) are essential skills for academic success" (p. 273). Not surprisingly, academic language teaching features persuasion (Coffin, 2004). Persuasion in writing is defined as a form of rhetorical production involving the identification of a thesis or claim, the provision of supporting evidence, and an assessment of warrants that connect the thesis, evidence, and subject matter of the argument (Newell et al., 2011).

It is believed that persuasive writing includes formal operational skills such as formulating, analyzing, and synthesizing reasons; as a result, persuasive writing is postponed to high schools or even college level (Applebee et al., 1986). The rhetorical structure of formal persuasive writing is far beyond putting the grammatical structures together. It includes thinking, planning, organizing, drafting, and revising (Newell et al., 2011). In addition, persuasion "requires students to express points of view and consider the perspectives of other people on a specific issue that needs to be clarified and supported by evidence to persuade the reader" (Alkthery & Al-Qiawi, 2020, p. 461).

The terms analytical and hortatory are sometimes used to distinguish two fundamental differences in persuasive purposes and strategy (Coffin, 2004). An 'analytical exposition' (persuading that) presents a well-formulated objective claim or thesis, while the relationship between writer and reader is typically interpersonally distant. In contrast, 'hortatory exposition' (persuading to) aims to convince the reader to respond in a certain direction – to take social action. In such persuasive texts, the interpersonal relationship between reader and writer is often more 'charged' (Coffin, 2004; Martin, 1989).

Studies conducted on writing skill (e.g., Bhowmik & Kim, 2021; Caplan, 2020; Hyland, 2000; Ivanic, 1998; Matsuda, 2001) have indicated that most foreign language learners are unaware of writing genres and strategies. In writing classes, teachers try to find out the best way to improve learners' L2 writing, especially in the persuasive genre. Mastery over writing strategies is of significance because it enriches students to create written discourses vital to our society (Breaden, 1996).

Among the strategies used in writing instruction, three different strategies of shared writing, interactive writing, and independent writing may increase English writing accuracy, defined by Richards and Schmidt (2010, p. 613) as a grammatical t-unit "consisting of one independent clause together with whatever dependent clauses are attached to it" and the writing complexity, normally defined in terms of the number of words per t-unit (Birjandi & Ahangari, 2008).

However, although previous studies have shown the effect of each of these strategies on adult EFL learners' writing performance, it seems that a comparative study with young EFL learners is missing in the literature. For this purpose, the following research questions were formulated:

1. Are there any statistically significant differences among the effects of shared, interactive, and independent writing strategies on intermediate non-Iranian EFL learners' writing accuracy?

2. Are there any statistically significant differences among the effects of shared, interactive, and independent writing strategies on intermediate non-Iranian EFL learners' writing complexity?

2. LITERATURE REVIEW

Teaching Writing

Writing will not make competent writers per se; therefore, it has to be instructed. Reppen (1995) stated that "simply allowing students to write a lot will not necessarily provide sufficient practice in the types of writing valued for academic learning" (p. 321). Teaching writing empowers L2 students by providing them with tools to accomplish different purposes through writing. This way the second language writers will also be able to evaluate their own writings as they begin to understand how and why texts are organized in certain ways (Reppen, 1995).

Hyland (2009) discussed three broad approaches to teaching writing, focusing on theories that are mainly concerned with texts, writers, and readers. The first approach focuses on the products of writing by examining texts, either through their formal surface elements or their discourse structure. The second approach focuses on the writer and describes writing in terms of the processes used to create texts. The third approach emphasizes the role that readers play in writing, adding a social dimension to writing by elaborating on how writers engage with an audience in creating texts.

In order for the teachers to make the experience of writing easier and better for the students, Elbow (2000) suggested the following. First, writers should understand certain features of the writing process to take charge of themselves. Second, writers need two kinds of mentalities. The first one is a fertile mentality, producing new ideas, and the second is a skeptical and critical mentality for critiquing and revising ideas. Third, learners' selves are individual and to some degree unique.

Carrió-Pastor and Romero-Fortezab (2013) stated that "The ability to write autonomously in English enables students to draw on a wider information base and carry out research effectively" (p. 235). The importance of writing this way undoubtedly makes teaching writing very important. In addition, Kazemi et al. (2014) argued that writing skill gains greater importance in higher education for being identified as a member of the disciplinary community of expert writers. Martin and Provost (2014) claimed that written communication skills remain the single most critical attribute for success in higher education. Without appropriate writing instruction, the probability to become a skilful writer would be little.

In the same vein, Ka-kan-dee and Kaur (2015) stated that there is a critical need to investigate and develop effective teaching strategies to develop students' writing competence. They highlighted the importance of argumentative teaching strategies to teach writing. The absence of argumentative teaching strategies to teach writing to both ESL and EFL learners makes a lot of difficulties in the use of complex syntactic forms and appropriate elements in producing argumentative writing. Hence, there is a need to change teaching writing as the students enter higher levels since the writing strategies taken by the lower graders are often different from higher graders (Fletcher & Portalupi, 2007).

Persuasive Writing: Theoretical Underpinnings

In the 1980s the genre approach disseminated the notion that student writers could benefit from studying different types of written texts. By investigating different genres, students can perceive the differences in structures and apply what they learn to their own writing (Nunan, 1999). Even in the classroom, where academic writing usually predominates, writing tasks can be introduced that are based on different real-world genres, such as essays, editorials, and business letters.

According to Nunan (2001), "genre theory grounds writing in a particular social context and stresses the convention-bound nature of … discourse. Writing, therefore, involves conformity to certain established patterns, and the teacher's role is to induce learners into particular … text types" (p. 94).

This theory perceives texts as attempts to communicate with readers (Miao, 2005). In the same vein, communicative purposes determine the social contexts in which writing is used and the genres that are characterized by both the grammatical items and the overall shape or structure of the discourse. In order to develop learners' ability in writing persuasive texts, teachers can use different strategies. There are often three main teaching strategies used by teachers to teach writing in classrooms. The first is shared writing, often defined as a collaborative composition between teacher and learners where the teacher is a writer (Swartz et al., 2001). As the second strategy, interactive writing involves the same procedure of shared writing with the difference that in interactive writing the teacher and students share the transcription of their shared compositions (Pearson & Gallagher, 1983). Interactive writing is similar to shared writing (Pinnell & McCarrier, 1994) in that the teacher and students collaboratively decide on a message and work through the writing process together; however, in interactive writing, the teacher will generally solicit a sentence from students based on a reading, conversation, or prior class experience. Deciding the exact point at which the students serve as scribes is a responsive teaching decision that offers a scaffold to the students (Button et al., 1996). The pattern of exchange is directed by the teacher, who makes strategic decisions about which literacy concepts to highlight, which writing principles to address, and which spelling strategies to use for scaffolding the young writers. The teacher serves as an audience member and a guide, carefully choosing the direction of the conversation for instructional effectiveness.

The third strategy is independent writing, through which the learners write independently without reliance on the teacher and their competent peers (Burns & Myhill, 2004). Independent writing is a chance for EFL learners to apply all they have learned about the writing process. This is executed through both assigned and self-initiated writing. It is at this phase in writing instruction that a teacher can make or break a writer (Power & Hubbard, 1991). Independent writing can open the door for involvement and can also accelerate writers' motivation. The independent writing strategy can spark students' interest all by themselves. The innumerable hours which teachers spend trying to spark learners' interest can be accomplished through independent writing. The key is knowing how to present writing to the students (Routman, 1991). Moreover, Calkins (1994) opined that independent writing is writing with a selection of topics, any topic of interest the learners may have with a balance between given and free choice. This balance could be done by designating a particular writing genre in which the learners must write.

Empirical Studies

Storch (2005) explored the effect of collaboration on writing. In this classroom-based study, the participants were 23 adult ESL students completing degree courses. Students were given a choice to write in pairs or individually. Although most chose to work in pairs, some chose to work individually. All pair work was audiotaped and all completed texts were collected. All pairs were also interviewed after class. The researcher compared texts produced by pairs with those produced by individual learners and investigated the nature of the writing processes evident in the pair work. The study also elicited the learners' reflections on the experience of collaborative writing. It was found that pairs produced shorter but better texts in terms of task fulfillment, grammatical accuracy, and complexity. Collaboration afforded students the opportunity to pool ideas and provide each other with feedback. Most students were positive about the experience, although some did express some reservations about collaborative writing.

Dobao (2012) investigated the effect of collaborative writing tasks. Previous research from the perspective of sociocultural theory suggests that writing tasks completed in pairs offer learners an opportunity to collaborate in the solution of their language-related problems, co-construct new language knowledge, and produce linguistically more accurate written texts. Accordingly, this study compared the performance of the same writing task by four-learner groups (n = 15), pairs (n = 15), and individual learners (n = 21). It examined the effect of the number of participants on the fluency, complexity, and accuracy of the written texts produced, as well as the nature of the oral interaction between the pairs and the groups as they collaborate throughout the writing process. The analysis of interaction focused on language-related episodes (LREs) revealed that although both groups and pairs focused their attention on language, groups produced more LREs and a higher percentage of correctly resolved LREs than pairs. As a result, the texts written by the four-learner groups were more accurate not only compared to those written individually but also those written in pairs.

Jafari and Ansari (2012) attempted to find the effect of group work on Iranian EFL learners' writing accuracy. Moreover, the effect of gender on text production was also investigated. Over a month, sixty Iranian EFL learners were chosen as the participants of this study. They were divided into two groups. The experimental group wrote collaboratively while the control group underwent individual writing tasks. Both groups participated in four essay writing sessions. The participants wrote on the same topics and genres. The results revealed that the students in the collaborative writing group outperformed the students in the control group, emphasizing the significant role of collaboration in L2 writing. Regarding gender effect, the data analysis showed that the females in the collaborative group outperformed males in the same group proving that gender plays a significant role in the Iranian EFL collaborative writing setting.

Jalili and Shahrokhi (2017) aimed at investigating the effects of individual and collaborative writing on the writing complexity, accuracy, and fluency of Iranian intermediate EFL learners. To this end, sixty EFL learners were divided into two groups. The participants in both groups were asked to compose a story based on the provided picture sheet. One group worked individually, and the other group worked in pairs. The t-test results indicated no significant differences in the complexity of the texts produced by the pairs and the individuals. Moreover, the findings demonstrated that collaborative writing fostered more accurate L2 written productions while individual writing promoted more fluent compositions.

Veramuthu and Shah (2020) explored 32 secondary school students' attitudes toward improving writing skills through collaborative writing. They gathered the data through a questionnaire to assess students' attitudes toward collaborative writing. The results indicated that students showed positive attitudes while writing collaboratively.

Caplan (2020) did a needs analysis with a sample of international MBA students, using English as a second language. They used online surveys, focus group interviews, and verbal protocol analysis with four MBA professors to better understand one key written genre that emerged from the analysis. It was found that the genre of the case study write-up is both important for and challenging to ESL students.

Bhowmik and Kim (2021) conducted a systematic literature review to examine the empirical evidence of the challenges teachers encounter in teaching ESL writing and the strategies that can be adopted to help overcome the challenges. They recommended incorporating skill integration in the writing classroom, providing students with opportunities to write more, and adopting explicit writing instruction to deal with the challenges of writing instruction.

Given the previous literature review, it seems that the effects of these strategies (i.e., shared writing, interactive writing, and independent writing) on the writing accuracy and complexity of young EFL learners, have not been investigated in a single experimental study. Moreover, in the

previous studies (e.g., Jalili & Shahrokhi, 2017) the researchers have not integrated the writing task with speaking prompts. Furthermore, as the educational systems intend to fulfill the requirement for the 21st century, collaborative approach may be one of the key elements that may mark a paradigm shift to aid ESL students to become proficient in writing. Therefore, in addition to filling the niche in the literature, this study could be significant for EFL teachers and learners since it may raise their awareness of the effects of these collaborative writing strategies on writing accuracy and complexity.

3. METHOD

Participants and Setting

Selected through a non-probability convenience sampling technique, the initial sample of the study incorporated 100 Lebanese intermediate EFL learners with the age range of 12-13. They were six-graders, studying at a Lebanese school in Qom, Iran, where they are taught the materials developed by the Lebanese educational system. The first language of the participating students was Arabic. In order to check the homogeneity of the sample in terms of the level of English language proficiency, one of the researchers distributed Quick Oxford Placement Test (QOPT) to all of them. The participants, who obtained scores within the range of 30 to 47, equal to B1 and B2 CEFR levels, were identified as intermediate-level learners (*Geranpayeh, 2003*). They were selected as the main participants of the study (n=74) and were randomly assigned to three experimental groups, each roughly 25 (i.e., shared, interactive, and independent groups, henceforth EG1, EG2, EG3, respectively). They used English as the obligatory medium of instruction at school.

Instrumentation

Quick Oxford Placement Test (QOPT)

For homogenizing the participants of the study before the treatment, the paper-and-pencil version of the Quick Oxford placement test (QOPT) developed by the University of Cambridge Local Examinations Syndicate (2001) in collaboration with Oxford University Press, was administered to make sure that the learners were in the same level of proficiency in the English language. It is a valid standardized test for specifying ESL or EFL learners' level of language proficiency (see Beeston, 2000; Jones, 2000). The test band scores are validated based on the CEFR bands (see *Geranpayeh, 2003*). It is composed of 60 multiple-choice items in total, measuring English grammar, vocabulary, and reading comprehension.

Pre- and Post-Tests

A topic was given to the participants to determine the level of their writing accuracy and complexity before and after the study. This topic was "Write a letter to your parents to persuade them to let you go on a school camping trip". The participants were asked to write one persuasive paragraph in 40 minutes and at least 250 words. The same topic was given as the post-test to measure the degree of change in the participants' writing accuracy and complexity after the treatment.

Materials

Six topics were chosen by the researchers and assigned to the participants in all groups to write a one-paragraph persuasive text about them. To make sure that the topics were not too complex for the participants, the researchers decided to choose the topics from among those which had been assigned by the school supervisor and used by other teachers in other similar classes in the same school prior to this study. The topics were as follows:

1. Is child labor useful for the future life of the children?
2. Why trees are important for human life?
3. Are rich people necessarily successful?
4. Is visiting museums during travel to new places amusing?
5. Why do some people prefer to eat at food stands or restaurants?
6. Is attendance in school classes necessary for learning?

To fulfill the goals of this study, the following steps were taken:

Procedure

At first, the QOPT was administered to the main participants. According to the results of this test, those students who were identified as intermediate-level learners were selected. The participants were randomly assigned to three experimental groups. Then, the writing pre-test with the title "Write a letter to your parents to persuade them to let you go on a school camping trip" was administered to all groups.

During the treatment sessions, the first experimental group (EG1) received shared writing strategy, the second experimental group (EG2) received an interactive writing strategy, and the third experimental group (EG3) received an independent writing strategy. A one-paragraph persuasive letter was the focus of the study in the class. It is worth mentioning that all 74 participants were present in all stages of the study like pre-test, treatment sessions, and post-test. The treatments lasted six sessions, and the participants wrote a persuasive letter on the specified topic in each session.

In EG1, the participants received a shared writing strategy for six sessions during a week. Following Swartz et al. (2001), students had to write a one-paragraph persuasive letter and organize the paragraph by formulating topic sentence, supporting sentences, and conclusions. In order to achieve the study goals, the teacher printed large colored pictures and brought one paragraph reading sample to the class for students. Then, during treatment sessions, students made groups of three or four to be able to write persuasive letters based on ideas shared about the reading passage. The teacher walked around the class and stopped by each group, took the best sentence of each, and wrote on her paper. At last, the teacher wrote the final edited paragraph on the board by herself.

In the EG2, the students received interactive writing strategy for six sessions. Based on Pearson and Gallagher (1983), the participants were asked to interact together regarding the topic and pictures then they wrote about them cooperatively. The learners discussed the topic for about 15 minutes before writing. Then, one representative from each group came to the board and wrote one sentence completing the other friends' sentences to make a final paragraph. Every group wrote its own part with a different color than the others. The students were writers and the teacher acted as a supervisor. First, the teacher presented the topic and a text sample evidently, expressed an opinion, and constructed a structure in which linked ideas were sensibly assembled to advocate the writer's purpose. Second, she offered logically ordered reasons that were adhered to by facts and details. After introducing the key features of persuasive writing and analyzing the text sample together on the board, she stuck some new pictures on the board regarding the topic of the new lesson.

In the EG3, the students received independent writing strategy for writing one-paragraph persuasive text. According to Burns and Myhill (2004), students made groups of three or four then the teacher brainstormed like the other stages by reading passage and using pictures. In the next step, the teacher asked questions regarding the reading and students answered cooperatively. Then, each participant took one paper individually and wrote her own paragraph based on the specified topic. During the individual writing phase, the teacher advised them one by one and directed them

toward the purpose. Furthermore, the students' errors were corrected separately. The teacher wrote the topic of each session on the board and asked the students to write at least 250 words in 40 minutes about the given topic.

After the sixth treatment session, a writing post-test was given to the participants in all groups, and its results were compared to the results of the pre-test in terms of the effect of the shared, interactive and independent writing strategies on non-Iranian EFL learners' writing accuracy and complexity in a one-paragraph persuasive letter.

Finally, the collected scores were subjected to analysis of covariance (ANCOVA) through SPSS software. The researcher implemented ANCOVA not only to compare the performance of the experimental groups after the treatment but also to show whether any post-test differences were due to the effect of treatment (i.e., writing strategies) or their possible variation in the starting point (i.e., pre-test).

4. RESULTS AND DISCUSSION

Results

Table 1 shows the descriptive statistics of the OPT data collected from all groups of the study before the treatment.

Table 1: Descriptive Statistics of the Participants' OPT Scores

	N	Minimum	Maximum	Mean	Std. Deviation
OPT	100	11	60	37.45	12.51
Valid N (listwise)	100				

As Table 1 indicates, the overall mean and standard deviation of the participants' OPT scores were 37.45 and 12.51, respectively. From these initial participants, 74 students whose scores were between 25 and 49 were chosen. The descriptive statistics for the participants' writing accuracy and complexity scores in the EG1 are presented in Table 2.

Table 2: The Results of the Participants' Pre-test and Post-test Scores in the EG1

	N	Min	Max	M	SD
Accuracy pretest in EG1	24	.11	.29	.20	.04
Accuracy posttest in EG1	24	.07	.19	.14	.03
Complexity pretest in EG1	24	2.79	7.27	4.70	1.21
Complexity posttest in EG1	24	3.68	5.61	4.72	.56
Valid N (listwise)	24				

As it is evident in Table 2, the participants' writing accuracy pre-test mean score in EG1 was 0.20 with a standard deviation of 0.04, and their writing accuracy post-test mean score was 0.14 with a standard deviation of 0.03. Regarding the participants' writing complexity in the EG1, their mean score in the pre-test was 4.70 with a standard deviation of 1.21, and the post-test mean score was 4.72 with a standard deviation of 0.56. Table 3 indicates the descriptive statistics for the participants' writing accuracy and complexity scores in the EG2 group.

Table 3: The Results of the Participants' Pre-Test and Post-Test Scores in the EG2

	N	Min	Max	M	SD
Accuracy pretest in EG2	25	.07	.30	.21	.06
Accuracy posttest in EG2	25	.03	.22	.10	.04
Complexity pretest in EG2	25	3.12	6.95	4.50	.82
Complexity posttest in EG2	25	4.16	6.42	5.08	.61
Valid N (listwise)	25				

As Table 3 indicates, it was found that participants' mean score in the writing accuracy pre-test in the EG2 was 0.21 with a standard deviation of 0.06, and their mean score in the writing accuracy post-test was 0.10 with a standard deviation of 0.04. In terms of writing complexity, the participants' pre-test mean score was 4.50 with a standard deviation of 0.82, and their post-test mean score was 5.08 with a standard deviation of 0.61. The descriptive statistics for the participants' writing accuracy and complexity scores in the EG3 are displayed in Table 4.

Table 4: The Results of the Participants' Pre-test and Post-test Scores in EG3

	N	Min	Max	M	SD
Accuracy pretest in EG3	25	.07	.33	.20	.06
Accuracy posttest in EG3	25	.03	.27	.15	.06
Complexity pretest in EG3	25	3.52	6.25	4.64	.62
Complexity posttest in EG3	25	3.82	6.05	4.68	.58
Valid N (listwise)	25				

Table 4 shows that the participants' writing accuracy pre-test mean score in EG3 was 0.20 with a standard deviation of 0.06, and their writing accuracy post-test mean score was 0.15 with a standard deviation of 0.06. Regarding the participants' writing complexity in the EG3, their mean score in the pre-test was 4.64 with a standard deviation of 0.62, and the post-test mean score was 4.68 with a standard deviation of 0.58. In order to investigate the first research question, which addressed the difference among the effects of shared, interactive, and independent writing strategies on intermediate non-Iranian EFL learners' writing accuracy, the researcher had to run an Analysis of Covariance (ANCOVA). Of course, prior to running ANCOVA, the researcher checked the necessary statistical assumptions (Table 5).

Table 5: Analysis of Covariance for Accuracy Scores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.03a	3	.01	5.36	.002	.18
Intercept	.05	1	.05	22.11	.000	.24
Accuracy Pre-Test	.005	1	.005	1.89	.043	.12
Groups	.03	2	.01	7.47	.001	.17
Error	.16	70	.002			
Total	1.53	74				
Corrected Total	.206	73				
a. R Squared = .187 (Adjusted R Squared = .152)						

As it is shown in Table 5, the participants' writing accuracy in pre-test scores is significantly and positively related to their writing accuracy post-test scores ($p=0.043< 0.05$) with a magnitude of 0.126. After adjusting for pre-test scores, there was a significant effect of the group, $F (1, 70) = 7.478$, $p< 0.05$, partial $\eta^2 = 0.176$. As the p-value is less than 0.05, the difference among the three groups was significant in terms of writing accuracy. Then, the LSD post hoc test was run to see where the differences lay between the groups (Table 6).

Table 6: The Pairwise Analysis of Accuracy Scores

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
EG1	EG2	.03*	.01	.01	.01	.06
	EG3	-.01	.01	.25	.04	.01
EG2	EG3	-.05*	.01	.000	.08	-.02

*. The mean difference is significant at the .05 level.

Based on Table 6, the mean score of the participants in the EG2 differed significantly from both EG1 ($p=0.011<0.05$) and EG3 ($p=0.000<0.05$). No significant difference was seen between EG1 and EG3 ($p=0255>0.05$). As the mean differences indicate, EG2 outperformed both EG1 (I-J=-0.036) and EG3 (I-J=-0.052) and it can be concluded that interactive writing strategies can lead to more accurate writing performance. Similar to the first research question, responding to the second research question, which aimed at investigating the difference among the effects of shared, interactive, and independent writing strategies on intermediate non-Iranian EFL learners' writing complexity, demanded running another ANCOVA after checking the required statistical assumptions (Table 7).

Table 7: Analysis of Covariance for Complexity Scores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2.622a	3	.874	2.555	.062	.099
Intercept	69.204	1	69.204	202.364	.000	.743
Complexity Pre-Test	.178	1	.178	.521	.007	.473
Groups	2.316	2	1.158	3.386	.039	.088
Error	23.938	70	.342			
Total	1750.291	74				
Corrected Total	26.560	73				

a. R Squared = .099 (Adjusted R Squared = .060)

As shown in Table 7, the first line highlighted shows that participants' writing complexity pre-test is significantly and positively related to the writing complexity post-test ($p< 0.05$) with the amount of 0.47. The next line shows the main effect of different writing strategy types on the dependent variable – writing complexity post-test scores. After adjusting for pre-test scores, there was a significant effect of the group, $F (1,70) = 3.386$, $p < 0.05$, partial $\eta^2 = 0.088$. As p-value is less than 0.05, the difference among the three groups in terms of writing complexity was significant.

A pairwise comparison was needed to check the difference between each pair of groups. The LSD Post Hoc test was performed on the data to achieve the goal. The results of the Post Hoc test are presented in Table 8.

Table 8: The Pairwise Analysis of Complexity Scores

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
EG1	EG2	-.35*	.16	.04	.68	-.01
	EG3	.04	.16	.78	.28	.37
EG2	EG3	.39*	.16	.02	.06	.72

*. The mean difference is significant at the .05 level.

Table 8 indicates that the mean score of the participants in the EG2 differed significantly from both EG1 ($p=0.041<0.05$) and EG3 ($p=0.020<0.05$). No significant differences were seen between EG1 and EG3. As the mean differences indicate, EG2 outperformed both EG1 (I-J=0.350) and EG3 (I-J=0.396) and it can be concluded that interactive writing strategies can lead to more complex writing performance.

Discussion

The purpose of this study was to investigate the effects of shared writing, interactive writing, and independent writing strategies on the writing accuracy and complexity of young EFL learners. It was found that the group, which used interactive writing strategies outperformed the other two groups and no significant differences were found between shared and independent writing groups.

In the same vein, the results obtained in this study were consistent with the results gained from the analysis of the texts produced by Storch (2005). He indicated that interactively written texts scored higher than individually written ones in terms of accuracy. Moreover, Nixon and McClay (2007) found that interactive groups achieved higher scores than individuals on their writing in terms of communicative quality along with organization and linguistic appropriateness. Similarly, Jafari and Ansari (2012), who explored the impact of interaction on Iranian EFL learners' writing accuracy, found results similar to those of the present study, indicating that learners, who worked in interaction with each other, produced more accurate texts than those in the independent group. They inferred that the improved accuracy in interactive writing group may be due to the learners' enhanced motivation to concentrate on grammatical accuracy and the participation in revision process which led to more accuracy.

Moreover, the finding of this study was in line with that of Jalili and Shahrokhi's (2017) study in terms of both writing accuracy and complexity in spite of the fact that Jalili and Shahrokhi (2017) used a picture description task as a prompt for the interactive writing task with some adult participants. Furthermore, the results of Jafari and Ansari (2012) also confirmed the findings of the present study in terms of writing accuracy in favor of the collaborative work group although they had only used dyads as a pattern of interaction in their study.

Moreover, the findings of the study can be justified on the ground that the interactive writing strategy emphasizes the integration of language skills. In this context, it stresses the combination of writing and oral skills in order to improve the learners' writing skill. According to the principles of interactive writing, learners should practice writing in actual writing activities (Pinnell & McCarrier, 1994). Another justification that may explicate the results concerning the higher accuracy and complexity of interactive writing group is that interactive writing afforded learners the chance to provide and get immediate feedback on language, a privilege that is not available when learners write individually. Furthermore, as Wigglesworth and Storch (2009) asserted,

another reason might be that, when working interactively, students are able to pool their resources, and on the whole, produce the correct outcome.

The results of the present study are in contradiction with the findings of the following studies. Dobao (2012) found no statistically significant differences in syntactic and lexical complexity between the texts written interactively and independently. The conflicting results gained from Dobao's (2012) study can be attributed to the difference in the size of groups and the learners' second language (i.e., Spanish). Storch (2005) also found no significant difference between the individual and collaborative writing groups, which might be due to the short length of the text and the small sample size. Moreover, Watanabe (2014) found conflicting findings, indicating that the learners came up with a statistically significant greater number of words when writing independently than interactively, proposing that independent writing may be more encouraging for producing more written text, which may be justified in the ground that the participants' use of first language as a meditational tool for learning L2 (Storch & Wigglesworth, 2003) and the scoring operationalization in Watanabe's (2014) study were different from this study.

5. CONCLUSION AND IMPLICATIONS

From the transcendence of interactive writing over shared and independent writing strategies, it can be concluded that interaction among learners and between the teacher and learners through sharing ideas can lead to better performance of the learners in terms of both accuracy and complexity of writing. Another conclusion that can be made is that interactive writing can maximize the students' interaction in English, and it can take away the big burden of running large classes. Therefore, the teacher has to change his or her role to be a motivator or problem solver. Furthermore, interactive activities can be an effective way to deal with the problems faced by Iranian teachers in EFL classes. It creates a comfortable non-stressful environment for learning and practicing English. It helps students to learn more, have more fun, and develop many other skills such as learning how to work with one another.

In the light of the findings of the present study, the researcher would like to suggest some practical implications which can be useful to students and teachers as well as material developers and syllabus designers. The first implication is for the students. By implementing group activities like interactive writing, language learners could reach high levels of writing proficiency. When the students interact with each other, they learn more as they are more involved. In other words, interaction which makes the learner think about the meaning of a word will be more helpful than teaching without it. Another implication of the present study for EFL learners may be enhancing their motivation to learn. When the students write interactively, they may have a sense of self-satisfaction. It means that they feel that their learning has some benefits for them and at the same time for their peers and gradually the sense of futility of attending language classes fades in them. The findings of the present study can also be useful to foreign language teachers who are in search of effective methods for teaching writing in a meaningful context and non-threatening environment. Syllabus designers and material developers can also take advantage of the findings of this study. They could include innovative exercises in relation to writing skill, by selecting appropriate classroom group activities and tasks, while taking the students' needs, strengths, levels, learning styles, learning strategies, teachers' teaching styles, etc. into consideration.

This study encountered two main limitations. Firstly, the limited number of students participating in this study and the representativeness of this small available sample may influence the generalizability of the findings. Moreover, the results of the study may have been influenced by the participants' age. Third, only non-Iranian EFL learners from a Lebanese School in Qom participated in this study due to availability issues.

Based on the limitations of the study, the following suggestions can be put forward for further research. Since the participants of this study were non-Iranian intermediate EFL learners, further

research is needed to check if the results of the present study are generalizable to other EFL learners with different first languages. Moreover, learners from other levels of proficiency can be selected for further studies. In addition to shared and interactive teaching of writing, other methods of cooperative writing may be implemented in future studies.

Acknowledgments

References

Alkthery, M. A., & Al-Qiawi, A. D. (2020). The effect of SPAWN strategy in developing persuasive writing skills and productive habits of mind. *Arab World English Journal (AWEJ)*, 11(1), 459-481. https://dx.doi.org/10.24093/awej/vol11no1.31

Applebee, A. N., Langer, J. A., & Mullis, I. V. S. (1986). *Writing: Trends across the decade, 1974-84*. Educational Testing Service.

Beeston, S. (2000). The UCLES EFL item banking system. *Research Notes*, 2, 8-9.

Bhowmik, S., & Kim, M. (2021). K-12 ESL writing instruction: A review of research on pedagogical challenges and strategies. *Language and Literacy*, 23(3), 165-202. https://doi.org/10.20360/langandlit29535

Birjandi, P., & Ahangari, S. (2008). Effects of task repetition on the fluency, complexity and accuracy of Iranian EFL learners' oral discourse. *The Asian EFL Journal*, 10(3), 28-52.

Breaden, B. L. (1996). *Speaking to persuade*. Harcourt Brace College.

Burns, C., & Myhill, D. (2004). Interactive or inactive? A consideration of the nature of interaction in whole class teaching. *Cambridge Journal of Education*, 34(1), 35-49. https://doi.org/10.1080/0305764042000183115

Button, K., Johnson, M. J., & Furgerson, P. (1996). Interactive writing in a primary classroom. *The Reading Teacher*, 49, 446-454.

Calkins, L. (1994). *The art of teaching writing*. Heinemann.

Caplan, N. A. (2020). Genres and conflicts in MBA writing assignments. In M. Brooks-Gillies, E.G. Garcia, S.H. Kim, K. Manthey, & T.G. Smith (Eds.), *Graduate writing across the disciplines: Identifying, teaching, and supporting* (pp. 337-357). The WAC Clearinghouse. https://wac.colostate.edu/docs/books/graduate/caplan.pdf

Carrell, P. L. (1982). Cohesion is not coherence. *TESOL Quarterly*, 16(4), 479-488. https://doi.org/10.2307/3586466

Carrió-Pastor, M. L., & Romero-Fortezab, F. (2013). Second language writing: Use of the World Wide Web to improve specific writing. *Procedia - Social and Behavioral Sciences*, 116, 235–239. https://doi.org/10.1016/j.sbspro.2014.01.200

Coffin, C. (2004). Arguing about how the world is or how the world should be: The role of argument in IELTS Test. *Journal of English for Academic Purposes*, 3(3), 229-246. https://doi.org/10.1016/j.jeap.2003.11.002

Dobao, A. F. (2012). Collaborative writing tasks in the L2 classroom: Comparing group, pair, and individual work. *Journal of Second Language Writing*, 21(1), 40-58. https://doi.org/10.1016/j.jslw.2011.12.002

Elbow, P. (2000). *Everyone can write: Essays toward a hopeful theory of writing and teaching writing*. Oxford University Press.

Fletcher, R., & Portalupi, J. A. (2007). *Teaching writing* (2nd ed.). Stenhouse Publishers.

Geranpayeh, A. (2003). A quick review of the English quick placement test. *Research Notes*, 12, 8-11.

Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. Longman.

Hyland, K. (2000). *Dictionary discourses: Social interactions in academic writing*. Longman.

Hyland, K. (2009). *Teaching and researching writing* (2nd ed.). Pearson Education Limited.

Ivanic, R. (1998). *Writing and identity: The discourse constructions of identity in academic writing*. John Benjamins.

Jafari, N., & Ansari, N. A. (2012). The effect of collaboration on Iranian EFL learners' writing accuracy. *International Education Studies*, 5(2), 125-131. https://doi.org/10.5539/ies.v5n2p125

Jalili, M. H., & Shahrokhi, M. (2017). Impact of collaborative writing on the complexity, accuracy, and fluency of Iranian EFL learners' L2 writing. *Journal of Applied Linguistics and Language Research*, 4(4), 13-28.

Jones, N. (2000). Background to the validation of the ALTE Can-do project and the revised Common European Framework. *Research Notes*, 2, 11-13.

Ka-kan-dee, M., & Kaur, S. (2015). Teaching strategies used by Thai EFL lecturers to teach argumentative writing. *Procedia - Social and Behavioral Sciences*, 208, 143–156. https://doi.org/10.1016/j.sbspro.2015.11.191

Kazemi, M., Katiraei, S., & Eslami Rasekh, A. (2014). The impact of teaching lexical bundles on improving Iranian EFL students' writing skill. *Procedia - Social and Behavioral Sciences*, 98, 864–869. https://doi.org/10.1016/j.sbspro.2014.03.493

Martin, J. R. (1989). *Factual writing: Exploring and challenging social reality*. Oxford University Press.

Martin, F. H., & Provost, S. C. (2014). Teaching students to discriminate between good and poor writing. *Procedia - Social and Behavioral Sciences*, 141, 205–209. https://doi.org/10.1016/j.sbspro.2014.05.036

Matsuda, P. K. (2001). Voice in Japanese written discourse: Implication for second language writing. *Journal of Second Language Writing*, 10, 35-53. https://doi.org/10.1016/S1060-3743(00)00036-9

Miao, Y. (2005). Exploring writing approaches in Chinese EFL class. http://www.thefreelibrary.com/Exploring+writing+approaches+in+Chinese+EFL+class-a01387036680

Newell, G. E., Beach, R., Smith, J., & Van Der Heide, J. (2011). Teaching and learning argumentative reading and writing: A review of research. *Reading Research Quarterly*, 46(3), 273-304. https://doi.org/10.1598/RRQ.46.3.4

Nixon, R., & McClay, J. K. (2007). Collaborative writing assessment: Sowing seeds for transformational adult learning. *Assessing Writing*, 12(2), 149-166. https://doi.org/10.1016/j.asw.2007.10.001

Nunan, D. (1999). *Second language teaching and learning*. Heinle & Heinle.

Nunan, D. (2001). *Second language teaching and learning*. Heinle & Heinle.

Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8, 317-344. https://doi.org/10.1016/0361-476X(83)90019-X

Pinnell, G. S., & McCarrier, A. (1994). Interactive writing: A transition tool for assessing children in learning to read and write. In E. Heibert & B. Taylor (Eds.), *Getting reading right from the start: Effective early literacy interventions* (pp. 149-170). Allyn and Bacon.

Power, B., & Hubbard, R. (1991). *Literacy in process*. Heinemann Educational Books.

Reppen, R. (1995). A genre-based approach to content writing instruction. *TESOL Journal*, 4(2), 32-35.

Richards, J. C., & Schmidt, R. (2010). *Longman dictionary of language teaching and applied linguistics* (4th ed.). Pearson.

Routman, R. (1991). *Invitations: Changing as teachers and learners K-12*. Heinemann.

Singer, B. D., & Bashir, A. S. (2004). Developmental variations in writing composition skills. In C.A. Stone, E.R. Silliman, B. J. Ehren & K. Apel (Eds.), *Handbook of language and literacy* (pp. 559-582). Guilford Press.

Storch, N. (2005). Collaborative writing: Product, process, and students' reflections. *Journal of Second Language Writing*, 14(3), 153-173. https://doi.org/10.1016/j.jslw.2005.05.002

Storch, N., & Wigglesworth, G. (2003). Is there a role for the use of the L1 in an L2 setting? *TESOL Quarterly*, 37, 760–770. https://doi.org/10.2307/3588224

Swartz, S. L., Klein, A. F., & Shook, R. E. (2001). *Interactive writing and interactive editing: Making connections between writing and reading*. Dominie Press.

University of Cambridge Local Examinations Syndicate. (2001). *Quick placement test* (Version 1). http://pishghadam-center.ir/wp-content/uploads/2020/05/2.-Oxford_Quick_Placement_Test.pdf

Veramuthu, P., & Shah, P. M. (2020). Effectiveness of collaborative writing among secondary school students in an ESL classroom. *Creative Education*, 11(1), 54-67. https://doi.org/10.4236/ce.2020.111004

Watanabe, Y. (2014). *Collaborative and independent writing: Japanese university English learners' processes, texts and opinions* [Doctoral dissertation]. University of Toronto.

Wenden, A. L. (1998). Metacognitive knowledge and language learning. *Applied Linguistics*, 19(4), 515-537. https://doi.org/10.1093/applin/19.4.515

Wigglesworth, G., & Storch, N. (2009). Pair versus individual writing: Effects on fluency, complexity and accuracy. *Language Testing*, 26(3), 445-466. https://doi.org/10.1177/0265532209104670

Witt, S., & Faigley, L. (1981). Cohesion, coherence and writing quality. *College Composition and Communication*, 32, 189-204. https://doi.org/10.2307/356692

Teaching ESL/EFL Writing Skill Website Evaluation: The Purdue Online Writing Lab and Pro Writing Aid

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Abstract

The use of technology has recently become an indispensable part of any educational program. Second and foreign language learning and teaching are increasingly being integrated with computers and mobile software. The importance assigned to the role of English language learning (ELL) software and websites has been even more highlighted in online classrooms, after the COVID-19 pan-demic, where teachers and students did not have a face-to-face interaction. One of the language skills which seems to be negatively affected by the lack of face-to-face interaction between teachers and learners is writing. Among various technology-assisted tools, websites can be effectively used as a source for im-proving L2 writing skills. However, not all websites encompass suitable content for developing learners' ESL/EFL writing skills. Therefore, it seems to be a logical concern to guide the students in both selecting and implementing the most relevant and, at the same time, efficient websites for teaching writing skill. Evaluating such websites is one way to respond to this concern. For this purpose, this study aims at evaluating two of the widely used websites specially designed to develop and improve learners' L2 writing skills: The Purdue Online Writing Lab and Pro Writing Aid. Moreover, the two websites were compared with each other in order to introduce the strengths and weaknesses of each website. The results of such an evaluation would be helpful for both teachers and learners in selecting the most efficient websites for improving their writing skill based on their purposes and practical needs.

1. INTRODUCTION

Technology has become an integral part of various educational programs. Computers and mobiles are increasingly enhancing opportunities for learning in various educational contexts. As stated by Larsen-Freeman and Anderson (2011) technology provides teaching resources and brings learning experiences to the learners' world. Computer-based activities provide learners with rapid information and appropriate materials (Gençlter, 2015; Tomlinson, 2009). The development of computer technology and the internet has had considerable effects on the field of ESL/EFL

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teaching and learning. Web 2.0 technologies which "encompass the growing collection of new and emerging Web-based tools" (Solomon & Schrum, 2007, p. 13) have paved the way for new forms of teaching and learning experiences. Various Web 2.0 tools such as blogs, wikis, photo and video sharing, and social networking have provided new opportunities for learners to use and learn English both in and out of the classroom environment. Because of the developing nature of Web 2.0 technologies, the English language teaching market is constantly changing to be able to respond to the new demands of consumers for more personalized and flexible services and products (British Council, 2018, cited in Aguayo & Ramirez, 2020).

Due to the widespread use of technology and internet-based computer applications, many L2 learners today are already familiar with and have experienced online language learning activities. Many ESL/EFL teachers also offer students to make use of the internet for doing relevant language learning activities. By using technology, many authentic materials can be provided to L2 learners and they can be motivated during learning (Ahmadi & Reza, 2018). Computer Assisted Language Learning (CALL) programs can guide the students in both selecting and implementing the most efficient tools and computer software for ESL/EFL learning purposes. Encouraging students to make use of computers and the internet for language learning is especially important because using computer-based language activities can improve cooperative learning in learners (Harmer, 2007).

Web use has been a paramount issue in recent CALL research and application (Fuentes & Martinez, 2018). In fact, technology-enhanced language learning (TELL) has received increasing attention in studies on language acquisition in the digital age (Healey, 2016). Among the learning resources available through the internet for developing L2 knowledge language learning, websites are considered as tools that offer great possibilities in language learning (Kir & Kayak, 2013; Son, 2005). Due to the widespread expansion of the internet, many EFL/ESL teachers and learners now have access to different English language learning (ELL) websites which provide them with an enormous amount of online information for both teaching and learning English as a second or foreign language. These websites encompass various language learning activities for developing and improving different L2 skills like reading, writing, listening, and speaking. Some of these websites aim at reinforcing a specific skill and some others present activities for two or more integrated skills. Additionally, one of the main purposes of English language learning (ELL) websites is to promote self-directed learning on the part of L2 learners (Aguayo & Ramírez, 2020).

The importance of online and self-directed learning through using ELL websites has been recently highlighted due to the outbreak of COVID-19 pandemic. The lack of face-to-face interaction between teachers and learners during online EFL classrooms can pose challenges to both teachers and learners in the process of teaching and learning different L2 skills. Using English language learning materials accessible through ELL websites allows learners to skip the imperatives of time, distance, and limits (Fuentes & Martinez, 2018) and paves the way for enhancing language skills through doing online language learning tasks.

One of the concerns regarding online materials and technologies is that they are generally considered more helpful in developing receptive skills – listening and reading – than addressing productive skills – speaking and writing (Kyppö, 2017, cited in Aguayo & Ramírez, 2020). This is in line with Aguayo and Ramírez's (2020) results of the assessment of four English teaching websites for self-directed learning: ESOL Courses, BBC, British Council, and Cambridge English. The assessment of these ELL websites revealed that there are important deficiencies in the evaluation of writing and speaking tasks which causes ignorance of the aspects on which the student must focus after learning. In the same vein, learners are less likely to engage in effective writing tasks after COVID-19 pandemic. Such a condition necessitates the introduction of suitable websites for developing EFL learners' writing skills.

Furthermore, because of the variety of EFL learners' needs, website designers often try to address learners' needs and earn their satisfaction (Shen et al., 2015). However, not all materials are equally reliable or valuable, therefore, language teachers need to be discerning and thoughtful Web users with clear ideas of Web resources quality factors (Son, 2005). With the availability of a variety of L2 learning websites, selecting the most efficient ones among them seems to be an essential task. As stated by Fuentes and Martinez (2018) who focused on designing an assessment framework for evaluating L2 learning websites, it has become problematic for language teachers and learners to find quality websites matching their needs. It is usually recommended that the effectiveness of an ELL website can be determined through evaluation (Castillo & Arias, 2018). Evaluating ELL websites in terms of their effectiveness in teaching different language skills is one way to help students select a suitable website for their English language learning purposes. Such an evaluation is also beneficial for the purpose of website improvement, as a website evaluation that fulfills the goals and desires of its users could specify areas for improvement (Allison et al. 2019).

Due to these concerns and the importance of ELL website evaluation as aforementioned, and for the purpose of helping L2 learners to improve their EFL writing skills in a self-directed manner, this study aims at evaluating two widely used websites specially designed for enhancing writing skills: The Purdue Online Writing Lab (POWL) and Pro Writing Aid (PWA). These two websites are among the top ten mostly used websites for the development of writing skills (according to the search on Google). The two websites provide English language learners with helpful tools to evaluate and develop multiple writing skills. The websites aim to provide learners with online programs to enhance their writing skills by increasing sensitivity to errors in the writing process. The results of such an evaluation would be helpful for learners in selecting an effective website that satisfies their needs for the development of EFL writing skills

2. LITERATURE REVIEW

Approaches to CALL Evaluation

According to Castillo and Arias (2018), the effectiveness of a website dedicated to teaching and learning the English language can be determined through evaluation. The evaluation of an ELL website can help learners to understand whether the content found on a particular website can help them achieve their learning goals. The importance assigned to website evaluation could be justified by the fact that if an ELL website lacks some basic qualities of website criteria such as interactivity, ease of use, operability, being user friendly, and providing relevant content, the learners will not make effective use of it and autonomous learning will not take place. In order to get familiar with the general orientations of evaluation of technological and web tools we resort to the distinctions that Levy and Stockwell (2006) observe for CALL evaluation. Levy and Stockwell (2006) distinguished three distinctive forms of CALL software assessment: assessment driven by checklists or forms, evaluation guided by methodological frameworks for language teaching, and evaluation related to second language acquisition (SLA) theory and research-based criteria.

As stated by Hubbard (1996; cited in Fuentes & Martinez, 2018), there are two points of difference between these forms of evaluation. The first is that methodological frameworks mainly focus on describing or characterizing instead of assessing. They evaluate features related to language learning and teaching outside technology. In other words, methodological frameworks allow a detailed top-down analysis of items through the description. The second point of difference is related to SLA-based approach which, unlike the other forms of assessment, is especially based on SLA theories and research and exploits findings from non-CALL research to adjust them to CALL. This is in line with Chapelle's (2001) description of the standards for assessing CALL

material where she emphasized concrete features like those in SLA theory. As stated by Chapelle (2001), some of these features are the purpose of the task, judgmental analysis of software and tasks, empirical analysis of learners' performance, and most importantly, the language learning potential of the software. Therefore, in SLA-based evaluation criteria, the elements are taken from SLA theory and research findings and re-evaluated based on CALL conceptualizations.

Checklists

Assessment checklists have been widely used by reviewers from the earliest phases of CALL (Fuentes & Martinez, 2018). These checklists, like other fields of study, request a response on a Likert scale or simply a yes/no answer. Although there have been some criticisms regarding the evaluation checklists as being biased and restrictive (Hubbard, 1988), some scholars like Susser (2001), have discussed in favor of CALL checklists emphasizing the efficiency of their specific instantiations.

Another aspect of evaluation checklists, as asserted by Susser (2001), relates to the flexibility of these instruments. Susser (2001) believes that we do not need to acknowledge the checklists in their original condition, instead, they can be adjusted and redesigned according to situational purposes. There are various sources for designing items on a checklist. Methodological frameworks and SLA-based approaches as two main sources of evaluation checklist development are introduced below.

Methodological Frameworks

Fuentes and Martinez (2018) state that despite being compatible with a few checklists, methodological frameworks vary from checklists in two points: firstly, methodological frameworks are mostly descriptive rather than judgmental in their structure. Second, the methodological frameworks mainly aim at joining the language and learning implications that happen outside of the innovation of CALL technologies. In other words, methodological frameworks characterize features of language learning and teaching instead of an evaluation of the tool. As stated by Hubbard (1988), rather than asking a specific set of questions, a methodological framework provides a tool through which an evaluator can create his or her own questions or develop some other evaluation scheme. In this sense, a framework provides a description of the components of something - in this case CALL materials - with respect to a particular goal - in this case evaluation (Hubbard, 1988).

To clarify the case, we can observe that the assessment framework components proposed by Hubbard (1988) are compatible and based on Richards and Rodgers's (1982) characterization of language teaching methods in terms of three classes: approach, design, and procedure. The approach refers to the hidden theories of language and language learning; the design is compatible with the assumptions of the method and includes the general and particular goals of the method, the syllabus model, and the role of teachers, learners, and materials. In order to depict the key components of assessment, Hubbard (1988) adjusted the approach, design, and procedures and classified them into learner fit, teacher fit, and operational description.

SLA-based approaches

The underlying idea of SLA-based approaches for developing software assessment checklists is that since teaching languages through software is a type of language teaching, it is sensible to construct the checklists based on suggestions from second language acquisition theory or research. Consequently, as described by Fuentes and Martinez (2018), the SLA-based approach takes discoveries from non-CALL areas and translates them into the CALL context.

Different scholars have tried to develop CALL evaluation criteria based on this approach. An example is Underwood's (1984) communicative approach to CALL in which findings from

research in communicative theory came to form 13 criteria for describing communicative CALL. The criteria later turned into an accepted assessment checklist. Other similar studies (like Egbert & Hanson-Smith, 1999) have tried to organize evaluation designs based on SLA theories and research regarding ideal language learning and teaching situations.

One of the famous CALL assessment models based on SLA-based approach was presented by Chapelle (2001) who worked in the field of computer applications in second language acquisition (CASLA). In general, computer-assisted language learning (CALL) as well as computer-based language testing, and computer-based SLA research are subsumed under CASLA. Based on this model, Chapelle (2001) offers five standards for assessing CALL:

1. CALL evaluation is situation-specific;
2. CALL should be evaluated both judgmentally and empirically;
3. CALL evaluation criteria should come from instructed SLA theory and research;
4. The criteria should be applied relative to the purpose of the CALL task; and
5. The central consideration should be language learning potential.

Various CALL software can be evaluated based on the principles of these assessment approaches. However, as aforementioned, SLA-based approach to CALL evaluation is considered to be more applicable as it relates the findings of SLA research to the CALL context. Various scholars have used these approaches to design checklists for assessing different aspects of technology use in English language learning and teaching. These checklists present multiple items for evaluating software and web tools used for learning English as a second or foreign language. Some of these assessment criteria are particularly designed for evaluating mobile language learning applications or computer software and websites. In accordance with the purpose of this study in regard to the evaluation of ELL websites as an important and widely used source for self-directed learning, we now turn to focus specifically on various evaluation criteria proposed for assessing ELL websites.

Assessing English Language Learning Websites

The importance of assessing ELL websites is highlighted when we see that only a few studies have concentrated on assessing language learning sites (Fuentes & Martinez, 2018). Another concern regarding the evaluation of ELL websites is that such evaluation seems crucial because we do not see any formal editorial process regarding the content of the language learning websites. As asserted by Shen et al. (2015), anyone can write just anything and post it online for public consumption. As a result, this leads to a point where in Kartal's (2005) words most language sites do exclude all the advantages provided by the internet. Kartal (2005) asserts that these sites offer a "restricted pedagogical methodology" which is decreased to simply presenting self-correcting activities like multiple choice questions, true or false items, and fill in the blanks. Furthermore, these sites do not reflect pedagogical models and learning theories and more importantly, goals, levels, and the target audience are not mentioned (Kartal, 2005). As previously mentioned, learning websites that do not meet certain standards and lack the essential and relevant components can not satisfy learners' needs and do not lead to self-directed and autonomous learning. Also, as stated by Aguayo and Ramírez (2020) regarding the importance of manipulation of evaluation criteria, non-compliance with the evaluated items leads to a deficient experience for independent users, unable to exploit all possibilities of the website due to the technical limitations they may encounter. Due to these concerns, the assessment approaches reviewed in this section are mainly related to website genres.

One of the oldest methods of evaluating a website is Jacob Nielsen's usability heuristics (Duggirala, 2016) developed in the 1990s. Nielsen's heuristic evaluation emphasizes a website's

ability to communicate with users in a language that is understandable to them and does not lead them into confused states. This heuristic evaluation consists of 10 principles for evaluating websites and aims at objectively evaluating the user experience on digital platforms (Duggirala, 2016). The principles include visibility of system status, the match between the system and the real world, user control and freedom, consistency, and standards, error prevention, recognition rather than recall, flexibility and efficiency of use, and aesthetic and minimalist design.

Another criteria framework for assessing ELL websites was proposed by Nelson (1998). Nelson's assessing framework contains four sections: a) purpose which refers to intended goals, uses, and audiences, b) pedagogy that is related to instructions, aspects of multimedia, interactivity, and communicativeness, c) design/construction that encompasses general web design principles including appearance, navigation, load speed, etc., and d) description which refers to general description and relevant comments about the site.

Chapelle (2001), following the previously mentioned standards for assessing CALL, suggests an arrangement of six general criteria for assessing the adequacy and efficiency of a CALL tool for supporting language acquisition. The six criteria are:

1. Language learning potential: the degree of opportunity presents for beneficial focus on form;
2. Learner fit: the amount of opportunity for engagement with language under appropriate conditions given learner characteristics;
3. Meaning focus: the extent to which learners' attention is directed toward the meaning of the language;
4. Authenticity: the degree of correspondence between the learning activity and target language activities of interest to learners out of the classroom;
5. Positive Impact: the positive effects of the CALL activity on those who participate in it; and
6. Practicality: the adequacy of resources to support the use of the CALL activity.

As we see, this model is mainly learner-centered and tries to assess a website based on the facilities it provides for learner engagement and interaction with the learning materials provided. Additionally, most criteria of this framework reflect a task-based, integrationist language teaching approach (Fuentes & Martinez, 2018).

In a comprehensive study, Allison et al. (2019) did a meta-analysis to review the existing globally accepted models of evaluating websites. The strong point of this study is that it presents a comprehensive review and summary of a great number of studies on website evaluation that can be used for designing new evaluation frameworks. In this meta-analysis, Allison et al. (2019) identified 69 relevant studies and explored the criteria for evaluating websites in each study. The identified criteria included:

1. Usability (i.e., ease of use), which is how much a website can be used to achieve given goals. It involves "navigation, effectiveness, and efficiency" (Alison et al., 2019, p. 6). In fact, the ease of use is determined by a highly interactive website, hence a better user experience ensures the website's popularity (Shen et al., 2015).
2. Content, regarding a website's understandability, completeness, accuracy, relevancy, and timeliness.
3. Functionality in regard to a website's links, speed, security, and compatibility with devices and browsers.
4. Web design that includes features, such as media usage, search engines, help resources, originality of the website, site map, multi-language capability, and maintainability.

5. Appearance, including layout, font, colors, and page length
6. Interactivity in which the option for feedback, comments, email, forum discussion boards, FAQs, consumer services, and background music is available.
7. Satisfaction with its usefulness, entertainment, and look and feel pleasure.
8. Loyalty, which indicates a website's first impression.

From another perspective, Kelly (2000) proposes a set of elements that should be considered when outlining a site for ESL students. The elements include:

- usability by a wide audience as possible
- speed of loading and displaying
- ease of use (ease of navigation and reading)
- usefulness (the site should fulfill a need)
- integrity and professionalism (honesty, accuracy, respect for copyrights, indicating
- the date of the last update, a contact address, …)
- wise and effective use of "cutting-edge technology"

Aguayo and Ramírez (2020) proposed an arrangement of criteria for evaluating the technical quality of ELL websites. They focused on the functionality and usability features of ELL websites which are the main characteristics of the technical dimension of a website. The functionality issues include navigation, adequacy of technology, interactive functionality, and accuracy of technology for the specific purpose. Furthermore, the usability sub-categories are presented as intelligibility, ease of use, operability, and design. Each of these issues is subdivided into detailed components which aim at evaluating different technical features of language learning websites. The important features like hyper-textuality and interactivity of websites are among the features evaluated in Aguayo and Ramírez's (2020) model. According to Aguayo and Ramírez (2020), Hyper-textuality might be regarded as the most defining characteristic of functionality in the web medium as it represents the basic and most important distinction between traditional textual genres and web genres. Hyper-textuality makes it possible for a user to follow different directions when reading, navigating, or using web content (Aguayo & Ramírez, 2020). Moreover, interactivity which mainly applies to autonomous learning context depicts a digital learning environment as interactive processes between the learner and the learning environment (i.e. websites) (Aguayo & Ramírez, 2020). The other essential feature of functionality, the accuracy of technology for specific purpose, determines the extent to which the technology exploited in the website is particularly relevant and helpful for teaching a specific language skill.

Son (2005) also proposes 15 criteria for classification and assessment of (ESL/EFL) websites. Each criterion is evaluated on a five-point Likert scale. The criteria in Son's (2005) model evaluate various features of ELL websites including the accuracy, usefulness, organization, navigation, authenticity, and communication of websites. Also, the model requires the evaluators to give an overall rating to the intended website by choosing a category from *very poor* (1) to *excellent* (5).

Sabri (2010) proposes an assessment approach for assessing a grammar site. Based on this approach, two methods of heuristic and exact evaluation of a grammar site are used. The approach contains a framework of assessment criteria and a pragmatic ease of use test of the site. The main segments investigated in Sabri's (2010) approach (as stated by Fuentes & Martinez, 2018), are Website description, website ergonomy (interface, navigation, learning path), usability test (type of difficulties encountered while running tasks), and complementary tools (dictionaries, translators, etc.).

As we consider, these and other similar studies (Kartal, 2005; Liu, Liu & Hwang, 2011; Hubbard, 2011) propose different arrangements of criteria for assessing English as a second and

foreign language (ESL, EFL) websites. Many features across these evaluation frameworks have similar purposes and function to evaluate certain aspects of ELL websites in a similar way. However, in spite of sharing several features in common, we should also take note of different orientations of these criteria. Each assessment criterion analyzes particular aspects of ELL websites in a different way while focusing on certain fundamental standards. These standards are related to basic aspects of Human Computer Interaction (HCI) and different components of Web 2.0 technologies. Moreover, a worth noting point in regard to choosing a particular assessment model is that we should determine which features of it can help us in effectively evaluating a particular language learning website. Regarding the literature, evaluating ELL websites can be considered a useful tool to help foreign language learners and teachers to select suitable websites according to their practical needs. In particular, in Iran, because of the COVID-19 pandemic, many language classes have been and are being held online. Such a condition has made L2 learners feel more need for using suitable ELL websites to enhance their language skills. The present study intended to show how the evaluation of two writing websites might assist both EFL learners and teachers.

3. METHOD

Instruments and procedure

The first step in evaluating the websites for teaching writing skills was to select the assessment criteria. In this study, Son's (2005) model was selected for categorizing and evaluating intended websites (see Table 1). Son (2005) asserts that his language learning website review form is based

Table 1: Son's (2005) Website Evaluation Checklist

Items	Descriptions
1. Purpose	Is the purpose clear? Is the content in line with the purpose? Is the Website appropriate for its targeted learner?
2. Accuracy	Is the content accurate? Are spelling and grammar accurate?
3. Currency	Is the Website current? Is the Website updated regularly?
4. Authority	Is there information on the author? Is the author well-recognized for his or her work?
5. Loading speed	Does the Website download fast? Do the content pages download efficiently?
6. Usefulness	Does the Website provide useful information? Are the language activities or tasks useful?
7. Organization	Is the Website well organized and presented? Is the Website interesting to look at and explore? Are screen displays effective?
8. Navigation	Is the Website easy to navigate? Are on-screen instructions easy to follow? Is it easy to retrieve information? Are hyperlinks given properly?
9. Reliability	Is the Website free of bugs and breaks? Is the Website free of dead links?
10. Authenticity	Are the learning materials authentic? Are authentic materials provided in appropriate contexts?
11. Interactivity	Is the Website interactive? Are methods for user input effectively employed?
12. Feedback	Is feedback on learner responses encouraging? Is error handling meaningful and helpful?
13. Multimedia	Does the Website make effective use of graphics, sound, and color? Is the level of audio quality, and the scale of graphics or video display appropriate for language learning?
14. Communication	Can the user communicate with real people online through the Website? Is online help available?
15. Integration	Can the learning materials be integrated into a curriculum? Does the content fit with curricular goals?

on a critical analysis of some other famous website evaluation guidelines and criteria including (as cited in Son, 2005), Tate and Alexander (1996), Bell (1998), Davis (2000), Joseph (1999), Kelly (2000), McKenzie (1997), Nelson (1998), Seguin (1999), and Schrock (1996). The review form requires administrative information such as the title of the site, its URL, language activities/skills, and target audience. Additionally, it contains a part for a site description. As shown in Table 1, Son's (2005) evaluation criteria contain 15 items. The reviewers evaluate each item as "Very Unsatisfactory", "Unsatisfactory", "Uncertain", "Satisfactory" or "Very Satisfactory". The definition of each criterion is presented in Table 1.

Furthermore, the form asks reviewers to give an overall rating for the website by choosing from five options: Very Poor (Not recommended at all), Poor (Not appropriate), Adequate (Acceptable with reservation), Good (Appropriate for use), and Excellent (Highly recommended). The evaluation checklist was sent to and received from the reviewers through a Google form link.

The Reviewed Websites

The two websites evaluated through Son's (2005) evaluation model were the Purdue Online Writing Lab (POWL) and Pro Writing Aid (PWA). These two websites are among the top ten mostly used websites for learning EFL writing skills. The two websites have been designed to be used by ESL/EFL writers at all levels and for general purposes. Purdue University's online writing lab (Purdue OWL) is an online writing center to help English language learners improve their writing skills by providing them with writing resources and guides. Through a navigation bar, the website provides some writing guidelines in the form of specified sections and sub-sections about a particular issue in writing.

The main sections of the website include general writing, research and citation, avoiding plagiarism, graduate writing, subject-specific writing, and job search writing. Each of the sections contains multiple sub-sections which present related instructions on a specific issue in writing. For instance, the main sub-sections of the general writing section include writing style, the writing process, academic writing, common writing assignments, mechanics, grammar, punctuation, rhetoric, personal correspondence, community-engaged writing, and general writing FAQs. The website also includes another navigation bar that presents instructions regarding different writing styles like MLA guide, APA guide, and Chicago guide. The website includes a section for writing exercises (OWL Exercises) in which various exercises are presented with correct answers available for learners on a separate page to check their answers. Each Exercise section contains various related subsections. The main sections range from grammar, punctuation, and spelling exercises to sentence structure and sentence style exercises.

Finally, the website includes a section for proofreading learners' papers and written documents through which learners can upload their papers or type their sentences and get a free online expert check on their writing. The errors are underlined and suggestions for correction are provided.

Pro Writing Aid (PWA) website provides a text editing tool which, in addition to the regular spell-checking and other grammar tools, checks the entered content for usage of vague or abstract words, alliteration analysis, and more.

Seven EFL teachers, including the writer, who had over ten years of experience in teaching English as a foreign language, independently evaluated the two websites based on Son's (2005) framework. Four teachers held MA and three teachers were Ph.D. students or candidates in TEFL. The results of the teachers' evaluation were analyzed in order to compare the two writing websites. The strong and weak points of each website were reported based on the results of the study.

4. RESULT

The results of the evaluation of the two websites are presented in Table 2. The seven evaluators independently assessed each website based on Son's (2005) framework. In addition to rating each criterion, the evaluators give an overall rating to each website.

As indicated in Table 2, for Pro Writing Aid (PWA) website (picture 1), the reviewers gave the highest mark (4.7) to purpose, interactivity, and feedback. Furthermore, the reviewers were highly satisfied with the accuracy, usefulness, organization, and reliability of PWA giving each of these criteria a mean score of 4.5. They also evaluated the website as having a highly acceptable loading speed (4.4). However, the currency (2.8), authenticity (2.4), integration (2.2), and communication (3) aspects of this website were given the lowest marks by the reviewers. PWA was also rated positively in terms of the navigation (4) features of the website.

Table 2: Web Site Review Results

	POWL	PWA
Purpose	4.2	4.7
Accuracy	4.2	4.5
Currency	3.4	2.8
Authority	4.2	4
Loading speed	4	4.4
Usefulness	4.1	4.5
Organization	3.2	4.5
Navigation	4.4	4
Reliability	4.1	4.5
Authenticity	3.1	2.4
Interactivity	3.2	4.7
Feedback	3.7	4.7
Multimedia	2.1	3
Communication	3.4	3
Integration	4.2	2.2
Overall rating	3.7	4.1

Note. POWL: The Purdue Online Writing Lab (https://owl.purdue.edu/);
PWA: Pro Writing Aid (https://prowritingaid.com/).

Fig. 1: Pro Writing Aid (https://prowritingaid.com/)
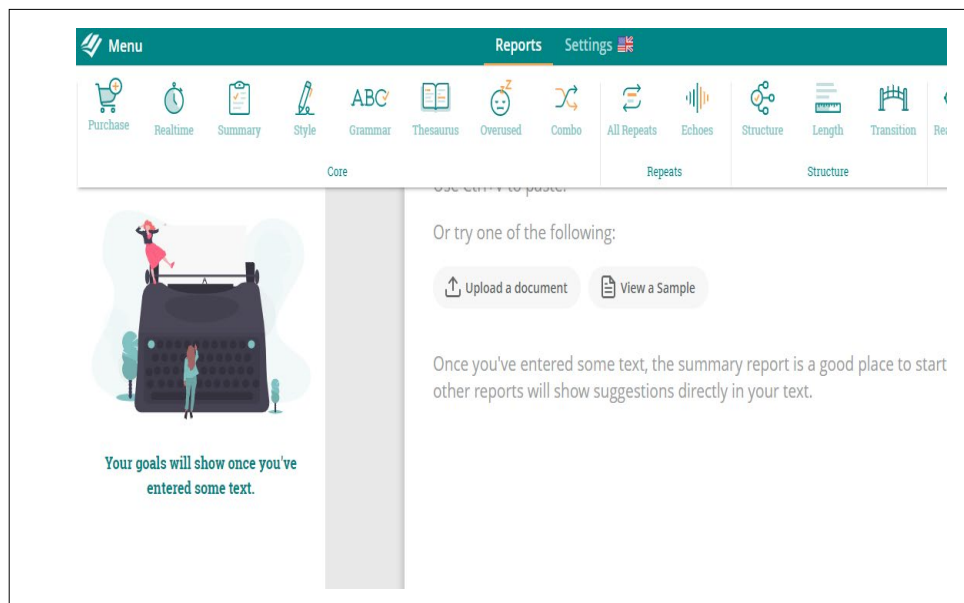
The results of the evaluation (Table 1) show that in the Purdue Online Writing Lab (POWL) website (Fig. 2), navigation (4.4) and integration (4.5) were given the highest marks. The purpose (4.2), accuracy (4.2), authority (4.2), and reliability (4.1) aspects of the website also were rated highly. The lowest scores were given to multimedia (2.1) and authenticity (3.1) features of POWL.
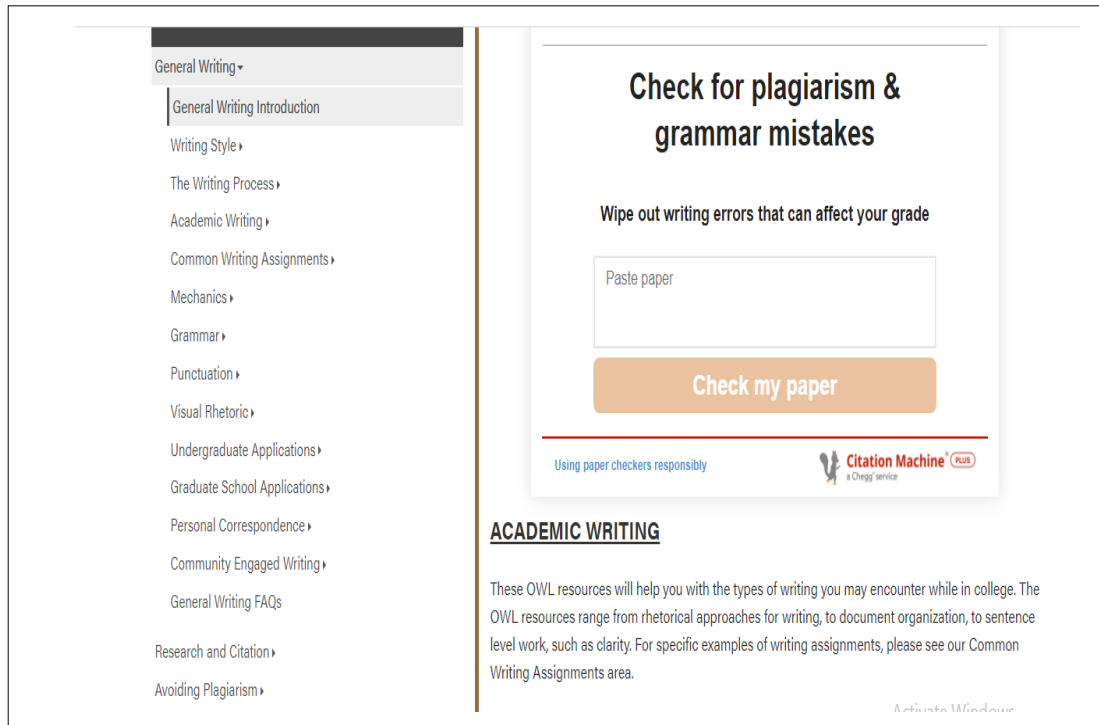
Fig. 2: Purdue Online Writing Lab (https://owl.purdue)

As can be understood from Table 2, the authenticity in both PWA and POWL were given low marks by the reviewers, 2.4 and 3.1 respectively. Additionally, the mark for currency in both websites was relatively low although it was higher in POWL (3.4) than in PWA (2.8). On the other hand, the accuracy, purpose, usefulness, and reliability criteria were rated above 4 in both websites. In terms of the differences between the two websites, the reviewers gave a significantly higher mark to the organization in PWA (4.5) than in POWL (3.2). Also, interactivity and feedback were rated higher in PWA than in POWL (see Table 1). In POWL, currency and authenticity got higher marks compared to PWA, and the integration in POWL (4.2) was rated significantly higher than in PWA (2.2).

Finally, as Table 2 shows, the two websites were rated as appropriate for use (between 3.5 and 4.5), however, the overall rating for PWA (4.1) was higher than POWL (3.7).

5. DISCUSSION

As discussed by Son (2005), in analyzing the results, it should be noted that a rating given to each criterion is more meaningful than the overall rating and the overall rating of an evaluation checklist cannot be a definite measure of evaluation. Therefore, the relative importance of each criterion should be taken into consideration when evaluating each website.

The results of the reviewers' evaluation of the two websites indicated that in most features measured by the checklist, the two websites were considered equally effective and useful. A score above 4 for the two criteria of purpose and accuracy for both websites indicates that the two websites can be acceptable sources for learners' writing improvement. This result is also reflected in the average score of the usefulness criterion which is higher than 4 for both websites.

However, the evaluation results showed that in some criteria the two websites are different. In the case of interactivity, for instance, the results showed that PWA is considered to be more interactive than POWL. It means that the learners can interact more easily and effectively with the content of PWA website. This issue can be attributed to the design of the text editing section of this website through which learners can easily edit and improve their text using various colored icons and figures available. Possibly, for the same reason, the organization of PWA was also rated higher than POWL although POWL contains more sections and sub-sections with a more variety of writing skill lessons.

One important aspect of ELL websites is the capability of integrating them into the content of a curriculum. It would be more functional for both teachers and learners if the content of an ELL website could be used effectively to enhance the content of the course. The results of this study showed that POWL was significantly rated higher than PWA in terms of this aspect. As mentioned above, this result can be attributed to the variety of writing issues in the form of main sections and subsections available in the navigation bar of this website. Various issues of general writing like writing styles, mechanics, grammar, punctuation, and other related issues can make POWL a suitable website for improving the content of a writing curriculum.

Another important concern in evaluating an ELL website is the multimedia features of it. The results of this study showed that in terms of using multimedia features, PWA and particularly POWL did not get a high score compared to the other highly rated features. This result, however, can be considered normal as we may discuss that the two websites are specifically designed for developing writing skill. The scores for this aspect in the two websites can be attributed to the graphics and color used in the two websites. It should also be noted that PWA includes videos for introducing some writing issues.
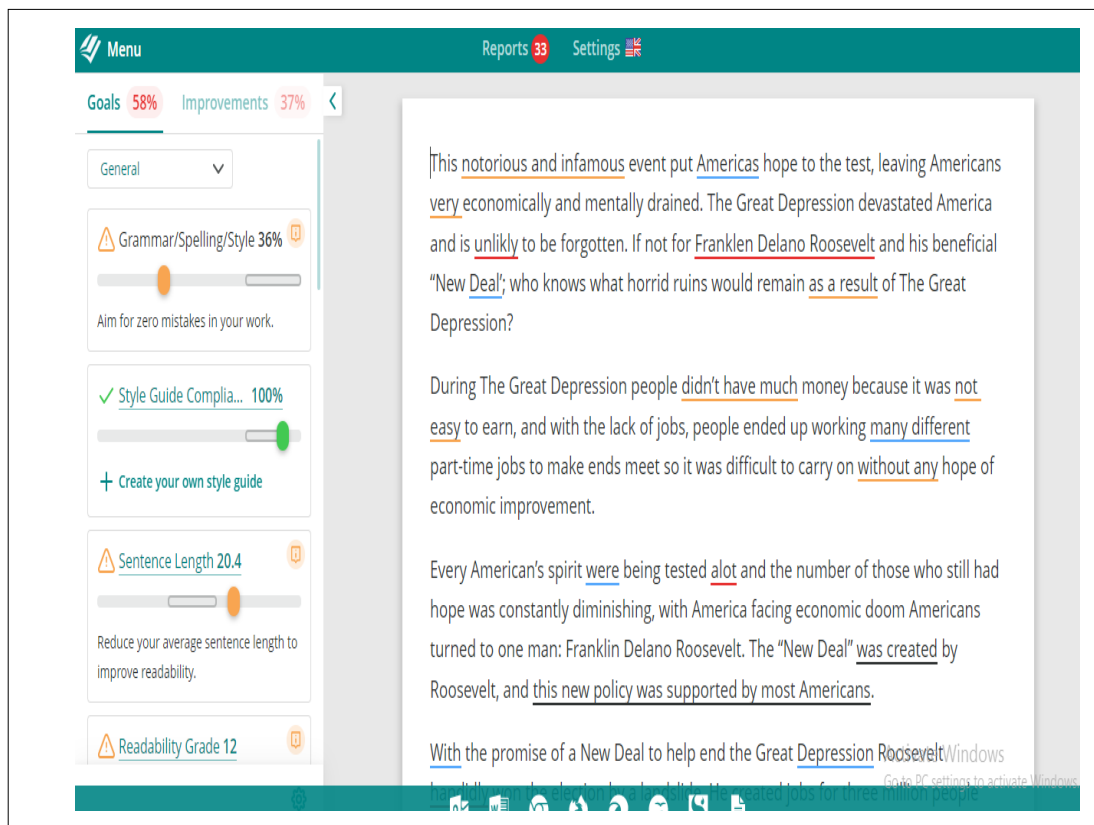
Fig. 3: Pro Writing Aid Text Editing Program

Finally, regarding feedback, the analysis showed that PWA (4.7) can provide more efficient feedback on learners' writing (Fig. 3) compared to POWL (3.7). This can be due to the more user-friendly environment provided by graphical figures of text editing programs in PWA. Using the proofreading and text correcting programs in both websites, the users can receive instant feedback on their self-written texts.

6. CONCLUSION

Reviewing and evaluating ELL websites can be considered a useful way for helping ESL/EFL learners and teachers to select suitable websites according to their practical needs. This can be even more crucial in flipped or online classrooms. Due to COVID-19 pandemic, many ESL/EFL classes have been and are being held online. Such a condition has made L2 learners feel more need for using suitable ELL websites to enhance their language skills. Writing, as a productive skill, might be less effectively practiced in online classrooms as teachers and learners do not interact directly with each other as in face-to-face classrooms. This is in line with Kyppö's (2017), (as cited in Aguayo & Ramírez, 2020) comment that most online and technological resources are considered more helpful in improving receptive skills like listening and reading than productive skill (i.e. speaking and writing).

It became evident from the evaluation results that the two websites reviewed in this study can be used to improve students' writing abilities. Consulting the assessment results of the specified criteria of the two websites, teachers and learners can fairly identify the strong points of each website and systematically use them in favor of improving certain skills in writing. Whether or not the teaching materials in the reviewed websites have been introduced and designed by known

experienced authors is an important aspect of such use. According to this study, the review results indicated that the two websites have been authorized by well-recognized authors in this field. However, as aforementioned, L2 learners and instructors can make different use of each website according to their levels and local needs. Moreover, the choice of a suitable writing website might differ considering the purpose and nature of a language learning course. The important concluding point is that teachers should continuously monitor and evaluate the students' use of such websites in order to assess their efficiency and make necessary decisions in advising learners on how to implement different sections of those websites.

References

Aguayo-Arrabal, N., & Ramírez-Delgado, C. D. (2020). A proposal of evaluation criteria for the quality of ESL/EFL Websites for Autonomous Learning. In C. Huertas-Abril & M. E. Gómez-Parra (Eds.), *International approaches to bridging the language gap* (pp. 102–117). IGI Global. https://doi.org/10.4018/978-1-7998-1219-7.ch007

Ahmadi, D., & Reza, M. (2018). The use of technology in English language learning: A literature review. *International Journal of Research in English Education*, 3(2), 115–125. https://doi.org/10.29252/ijree.3.2.115

Allison, R., Hayes, C., McNulty, C. A. M., & Young, V. (2019). A comprehensive framework to evaluate websites: Literature review and development of good web. *JMIR Formative Research*, 3(4), e14372. https://doi.org/10.2196/14372

Castillo, R. C., & Arias, M. B. (2018). Analysing English online resources for children: A practical case with an evaluation template proposal. *Pixel-Bit: Revista de Medios y Educación*, 53, 7-25. https://doi.org/10.12795/pixelbit.2018.i53.01

Chapelle, C. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing, and research*. Cambridge University Press.

Duggirala, S. (2016, August 3). *10 Usability heuristics with examples*. Prototypr. https://blog.prototypr.io/10-usability-heuristics-with-examples-4a81ada920c

Egbert, J., & Hanson-Smith, E. (Eds.). (1999). *CALL environments: Research, practice, and critical issues*. Teachers of English to Speakers of Other Languages.

Fuentes, E. M., & Martinez, J. R. (2018). Design of a checklist for evaluating language learning websites. *Porta Linguarum*, 30, 23–41. https://doi.org/10.30827/Digibug.54001

Gençlter, B. (2015). How does technology affect language learning process at an early age? *Procedia - Social and Behavioral Sciences*, 199, 311–316. https://doi.org/10.1016/j.sbspro.2015.07.552

Harmer, J. (2007). *The practice of English language teaching*. Pearson Publications.

Healey, D. (2016). Language learning and technology: Past, present and future. In L. Murray & F. Farr (Eds.), *Routledge handbook of language learning and technology* (pp. 35–49). Routledge.

Hubbard, P. (1988). An integrated framework for CALL courseware evaluation. *CALICO Journal*, 6(2), 51–72. https://doi.org/10.1558/cj.v6i2.51-72

Hubbard, P. (2011). Evaluation of courseware and websites. In L. Ducate & N. Arnold (Eds.), *Present and future promises of CALL: From theory and research to new directions in foreign language teaching* (pp. 407–440). CALICO.

Kartal, E. (2005). The Internet and autonomous language learning: A typology of suggested aids. *Turkish Online Journal of Distance Education*, 4(4), 54–58.

Kelly, C. (2000). Guidelines for designing a good Website for ESL students. *The Internet TESL Journal*, 6(3), 1–9. http://iteslj.org/Articles/Kelly-Guidelines

Kir, E., & Kayak, S. (2013). The evaluation of websites teaching English as a foreign language. *Procedia - Social and Behavioral Sciences*, 1(4), 2788–2795. https://doi.org/10.1016/j.sbspro.2013.01.659

Larsen-Freeman, D., & Anderson, M. (2011). *Techniques and principles in language teaching*. Oxford University Press.

Levy, M., & Stockwell, G. (2006). *CALL dimensions: Options and issues in computer-assisted language learning*. Lawrence Erlbaum.

Liu, Z. H., Liu, G. Z., & Hwang, G. J. (2011). Constructing multidimensional evaluation criteria for English learning websites. *Computers & Education*, 56, 65–79. https://doi.org/10.1016/j.compedu.2010.08.019.

Nelson, J. T. (1998). *A system for the evaluation of ESL Websites* [Unpublished master's thesis]. Washington State University.

Richards, J., & Rodgers, T. (1982). Method, Approach, design and procedure. *TESOL Quarterly*, 16(2), 153–168. https://doi.org/10.2307/3586789.

Sabri, M. (2010). Evaluation d'un support numerique d'apprentissage grammatical. *Information Sciences for Decision Making*, 37. http://isdm.univ-tln.fr/PDF/isdm37/NEDEP_ISDM_Al_Sabri.pdf

Shen, H., Yuan, Y., & Ewing, R. (2015). English learning websites and digital resources from the perspective of Chinese university EFL practitioners. *ReCALL*, 27(2), 156–176. https://doi.org/10.1017/S0958344014000263

Solomon, G., & Schrum, L. (2007). *Web 2.0: New tools, new schools*. ISTE (International Society for Technology in Education).

Son, J. B. (2005). Exploring and evaluating language learning Web sites. In J. B. Son & S. O'Neill (Eds.), *Enhancing learning and teaching: Pedagogy, technology and language* (pp. 215–227). Post Pressed.

Susser, B. (2001). A defense of checklists for software evaluation. *ReCALL*, 13(2), 261–276. https://doi.org/10.1017/S0958344001000726

Tomlinson, B. (2009). *Materials development in language teaching*. Cambridge University Press.

Underwood, J. (1984). *Linguistics, computers, and the language teacher: A communicative approach*. Newbury House.

From Resentment to Redemption: A Mixed-Methods Study of English Language Teachers' (Un)Forgiveness

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Abstract

Forgiveness has been identified as one of the 24 fundamental character strengths, and its reflection signals one's temperance, which is among six major virtues residing in the human psyche, alongside wisdom, courage, humanity, justice, and transcendence. However, (un)forgiveness has been rarely discussed in language teaching and learning research. Thus, the present exploratory sequential mixed-methods study sought to profile the preliminary evidence on the psycho-emotional outcomes of unforgiveness among Iranian EFL teachers. The thematic analysis of the data obtained through semi-structured interviews with 25 teachers revealed that unforgiveness in L2 class entails rumination, in-creased anxiety, disrupted authority, and reduced energy. Building upon the qualitative findings, the researcher obtained the quantitative data by surveying 276 teachers to determine the extent to which they are forgiving towards themselves and their students in stressful situations. Results indicated non-significant differences in-between the three subcomponents of forgiveness, suggesting that teachers rely on forgiveness as a tension-coping strategy to detach themselves from the unpleasant consequences of unforgiveness. Find-ings imply that the extent to which teachers remain in the darkness of hatred and bitterness depends on their choice of grudging over things that cannot be reverted but can be compensated or forgiving themselves and others in favor of spreading love, kindness, and humanity.

1. INTRODUCTION

Recent psycho-emotional studies have verified the emotionally-intensiveness of language teaching. Many factors, such as students' misbehaviors, classroom management issues, anxiety, and psychological distress, have been identified as tension-provokers, and ignoring their presence in educational contexts would threaten the mental health and overall wellbeing of teachers (Dewaele et al., 2019; Wang et al., 2021). Many words like anger, anxiety, retribution, and retaliation burst into the mind while facing such adversities in life and profession. These are our

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natural proclivities to deflect threats and unpleasant feelings that have been with us throughout human history, and triggering them puts individuals in a distressful state of mind. Therefore, empowering teachers with stress-coping mindsets and strategies can help them to thrive in hardships, remain immune to unpleasant situations, and protect their wellbeing from detrimental threats (MacIntyre et al., 2020). In this vein, instead of responding negatively to transgressions and adversities, one can consider forgiveness as an option to break the cycle of harsh thoughts, alter and manage the negative feelings, and plant the seeds of benevolence, compassion, understanding, and love (Black, 1998; Fry & Bjorkqvist, 1997; Thompson et al., 2005). The non-forgiving atmosphere of the classrooms would lead the students to see their teacher as incompetent, indolent, and offensive (Kearney et al., 1991). Teachers might also feel distressed and offended due to their students' misbehaviors (Debreli & Ishanova, 2019). In either scenario, the wellbeing of both groups will be negatively influenced (Sapmaz et al., 2016), and the probability of learning will decline; therefore, paying attention to teachers' mindsets about forgiveness not only helps them to remain immune but also beneficial to their students' wellbeing and growth since it provides the basis for an emotionally supportive educational context wherein teachers and students' flexibility relative to diverse psycho-emotional fluctuations is honed and strengthened (Dwomoh et al., 2022; Tigert et al., 2022). However, few studies have considered language teachers' forgiveness relative to sociology and social psychology.

Forgiveness has been identified as one of the 24 fundamental character strengths, and its reflection signals one's temperance, which is among six major virtues residing in the human psyche, alongside wisdom, courage, humanity, justice, and transcendence (Peterson & Seligman, 2004). The introduction of positive psychology (PosPsy) to SLA studies paved the way for studying and reflecting on various psycho-emotional factors among learners and teachers (Wang et al., 2021). PosPsy seeks to find ways by which the existing positive characteristics of the individuals can be honed since it tries to ensure the emergence and flourishing of the aforementioned character strengths, such as perseverance, hope, and wisdom, in light of recognizing and managing the negative factors that might infect one's wellbeing and safety (Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2001). Relying on the tenets of PosPsy, scholars assert that forgiveness is an integral part of teachers' emotional competence, which also encompasses compassion, enthusiasm, optimism, power, and self-confidence (Madalińska-Michalak & Bavli, 2018). It is argued that an emotionally competent teacher would cultivate the students' tolerance, respect, integrity, fairness, personal and social responsibility, and awareness (Schleicher, 2012; Madalińska-Michalak, 2015). The growing body of PosPsy-laden studies in recent years indicates that forgiveness has to be acknowledged in a peacebuilding and loving pedagogy frameworks that seek to nurture the language education stakeholders' proficiency along with enabling them to grow and flourish emotionally and psychologically despite hardships and threatening learning and teaching circumstances (Grimmer, 2021; Page, 2018; Yin et al., 2019). According to both frameworks, educational systems are to acknowledge and nurture hope, harmony, peace, and love, which are required to resolve interpersonal conflicts, violence, and misunderstandings that occur in classroom contexts. Thus, it becomes essential for teachers to become familiar with and equipped with a mindset about forgiveness as a fundamental notion in peacebuilding and loving pedagogies and a relevant competency required for nurturing peace and love in educational ciphers (Gabryś-Barker, 2021).

Following PosPsy trends in L2 research, the present study would be among the first attempts in the language education realm that directly taps into language teachers' (un)forgiveness. The trial seeks to fill the gap within the L2 literature by highlighting the idea that forgiveness might function as a possible practical solution to language teachers' unpleasant experiences (Davis et al., 2015). In other words, forgiveness, as one's internal psychological strength, has been overlooked in the

literature, and the field is yet to discuss the stress-coping potentialities of this phenomenon. Specifically, language teachers face unique yet challenging stressors that might trigger interpersonal conflicts, perceived unpleasant experiences, and unresolved grievances (MacIntyre et al., 2019). In such an emotionally diverse context, language teachers might blame themselves for their students' poor performance and see themselves as incapable, incompetent, and inefficient teachers (Rimm-Kaufman & Sandilos, 2011; Toussaint et al., 2017; Wettstein et al., 2023; Winding et al., 2022). Further, they might cling to the idea that they are to be blamed for the students' misbehaviors, and their inability to control and manage the classroom might further evoke excessive negative feelings. Moreover, teachers might be unaware of the classroom realities by forgetting the fact that they are only a piece of educational domino, and there are numerous intervening variables, such as students' background, school facilities, and flawed policies, which might, in turn, affect the classroom situations, teachers' emotional engagement, interpersonal relationships with students and colleagues, and the students' experiences (Allen & Leary, 2010; Birch & Nasser, 2017). Additionally, the realization of forgiveness, like any other psycho-emotional factor, is also context-dependent and requires a localized view for interpretation and generalization (Fu et al., 2004; Paz et al., 2008), thus, envisioning the forgiveness-laden pedagogy within the educational curriculum and teacher education programs requires a clarification of this phenomenon to the teachers (Azzi, 2022; Birch & Nasser, 2017). This would also lead to raising the awareness of the teachers that gives them an insight into their feelings and emotions and the possible positive outcomes that lie in forgiving their student's misbehaviors or language-related mistakes. The present research would also highlight the role of forgiveness relative to peacebuilding and loving pedagogy of language in which the notion has been recognized as one of the central pillars and goals, but studies that further justify the inclusion of forgiveness within these frameworks are scanty (Derakhshan et al., 2022; Gabryś-Barker, 2021; Wang et al., 2022).

2. LITERATURE REVIEW

(Un)Forgiveness

Forgiveness and its counterpart, unforgiveness, had no room in scientific studies for over 300 years. It was only during the last two decades that social psychologists decided to put an end to the hibernation mode of this phenomenon and open a new chapter in discussing the epistemology and nature of forgiveness among individuals (McCullough et al., 2000). To demystify forgiveness, one can reflect on it from an opposite vantage point by considering what forgiveness is not. The philosophical underpinnings of forgiveness suggest that it differs from notions such as condoning, pardoning, excusing, forgetting, and denying (Enright & Coyle, 1998; Mason & Dougherty, 2022; Strabbing, 2020). When we condone, we see ourselves as deserving of the abuse, or during excuse, we pretend that the offender had no intent to hurt us. Elaborating more on the differences between forgiveness and similar notions, Enright (2001) argues that a forgiver has the right to resent the offender or choose to respond with mercy, compassion, benevolence, and love because forgiveness involves "a change of heart, a shift in attitude, an alteration of an inner state" (Neu, 2011, p. 134). Meanwhile, unforgiveness refers to "a cold emotion involving resentment, bitterness, and perhaps hatred, along with the motivated avoidance of or retaliation against a transgressor" (Worthington & Wade, 1999, p.386). Factors such as religiosity, shame, trait empathy, anger, agreeableness, and altruistic motives have been discussed as predictors of one's tendency towards forgiveness (Worthington & Wade, 1999; Worthington et al., 2007).

Reflecting on the theoretical aspects of forgiveness, one comes up with three vantage points by which psychologists studied forgiveness. Some scholars believe that forgiveness is a prosocial positive or less negative response to the blameworthy transgressor (McCullough & Worthington, 1994; Scobie & Scobie, 1998). Moreover, the disposition view scales people along a forgiving-

unforgiving continuum and describes people somewhere between the two poles based on interpersonal circumstances (Mullet et al., 1998). Furthermore, the social characteristic standpoint brands forgiveness and other social values such as intimacy, commitment, and trust (McCullough & Witvliet, 2002). Several models and frameworks have been postulated to describe the boundaries of forgiveness. Based on Luskin's conceptualization (2002), the phenomenon is rendered in three layers, namely, one's own actions, others' actions, and inevitable circumstances where no one can be blamed for the situation. Self- and others' forgiveness is an emotion-laden tensions-coping strategy that helps individuals reduce negative thoughts, emotions, and intentions toward themselves and others (Davis et al., 2015). Reflecting on Luskin's model, Exline et al. (2003) extended the territories of forgiveness-guided studies by posing a dichotomy of decisional and emotional forgiveness. The former type functions as a channel that reduces anger and resentment towards others and is a restoring strategy that helps the individual reconcile distorted interpersonal relations. The latter type (i.e., emotional forgiveness) arises from one's sense of love, compassion, and empathy. Guided by these frameworks, studies show that forgiveness leads to decreased stress and anger (Harris et al., 2006), reduced resentment (Berry & Worthington, 2001), and self-condemnation (Toussaint et al., 2017), which includes guilt, shame, regret, disappointment, and despair (McConnell, 2015). Moreover, studies suggest that forgiving leads to increased resilience (Worthington et al., 2001; Worthington & Scherer, 2004), empathy (Toussaint & Webb, 2010), life satisfaction, and subjective wellbeing (Fincham, 2015; Thompson et al., 2005).

Also, forgiveness has been discussed as an essential component of one's flourishing, which expands the boundaries of wellbeing from individual positive emotions to shared welfare in social contexts (Seligman, 2011). Further, it contributes to flourishing by increasing positive emotions, harmony, mastery, and amplified perceptions of self-worth and self-acceptance (Toussaint et al., 2023). Recently, Tiwari et al. (2023) looked upon transgressions and forgiveness in the workplace context qualitatively, and their thematic analyses of the data obtained from 48 participants revealed that forgiveness is beneficial for promoting positive emotions, good relations, and a healthy work environment. Further, Haikola (2023) investigated forgiveness among seven interviewees through a religious and spiritual scope. The analyses supported the spiritual aspects of forgiveness by pinpointing that believers attribute forgiveness to God, and without God's mercy, they would not have been able to forgive. Also, Rapp et al.'s (2023) meta-analysis of 20 studies involving 1477 youths from 10 countries revealed that informing individuals about forgiveness and its process would benefit those exposed to disturbing and unpleasant feelings and experiences.

(Un)Forgiveness has rarely been discussed in L2 studies. Birch and Nasser's (2017) study is among the first attempts in L2 education where the researchers highlighted the role of forgiveness pedagogy in multilingual and diverse contexts. The rationale behind their trial was to highlight that forgiveness-laden pedagogies would help teachers face classroom realities since they detach the teachers from a pre-determined globalized agenda for education and provide a contextualized lens through which the teachers can be responsive to their students' needs based on the classroom realities. In other words, they assert that applying forgiveness to education would possibly infuse more tolerance to the context and enhance the humanized aspects of education where teachers and students bond better and become capable of solving problems collaboratively in an emotionally supportive environment where to fail means to learn. Their idea aligns with Wang et al. (2022), who postulated the agenda for a Loving Pedagogy approach to language education. As discussed earlier, Loving Pedagogy tries to nurture positive feelings and experiences during the learning process and empower the teachers and learners psychologically and emotionally. In doing so, they elaborate on forgiveness as one of the central pillars of the Loving Pedagogy, along with notions such as kindness, sacrifice, empathy, growth, acceptance, and respect; however, the field of

language education lacks the empirical evidence further to justify the inclusion of forgiveness within this framework. Specifically, the outcomes of forgiveness have been discussed in areas other than L2 learning, and the multilayered nature of L2 teaching and learning calls for more elaborations and discussion regarding the role of forgiveness and the outcomes of unforgiveness in the L2 milieu. To date, Derakhshan et al.'s (2022) study is the only empirical study in this regard where the researchers sought to validate the Disposition towards Loving Pedagogy Scale (DTLP) (Yin et al., 2019), which aims at the teachers' forgiveness, acceptance of diversity, intimacy, kindness, and similar entities. The data analysis from 773 EFL/ESL teachers revealed that DTLP predicts the teachers' work engagement and is significantly correlated with teachers' creativity.

As discussed earlier, forgiveness could lead to reconciliation of distorted relations, increased sense of compassion and empathy, reduced resentment, and decreased self-condemnation (McConnell, 2015; Toussaint et al., 2017). However, to date, studies that exclusively frame forgiveness within language teaching boundaries are nonexistent, and the present study tries to address this gap along with identifying the negative psycho-emotional factors that unforgiveness might entail. Therefore, the present attempt is justifiable relative to several reasons which were addressed earlier. The foremost reason behind the present trial rests upon the premise that language teaching is an emotionally intense profession. Thus, the field urgently needs practical anti-stress strategies which help teachers remain calm and focused during apprehensive situations which arise in the class (Gabryś-Barker, 2021; Wang et al., 2022). Moreover, the thoughts of adverse incidents might further disturb the teachers' feelings. The more anxious the teachers, the less willing they become to their job, which in turn might lead to various adverse outcomes such as distress and burnout; thus, forgiveness, as an integral strength and virtue within the human psyche, might help the language teachers to deflect negative and stressful thoughts. Thus, the present exploratory sequential mixed-methods study would provide insight into the opposite side of forgiveness (i.e., unforgiveness). The trial would provide the initial empirical and qualitative data, which enable the researchers to discuss further and justify the inclusion of forgiveness into contextualized curricula and pedagogies. Further, it highlights the possible beneficial role of forgiveness in detaching from stressful language-teaching experiences. Finally, it tries to warn about the possible negative outcomes of unforgiveness. In this vein, the answers of the following questions are sought:

1. What psycho-emotional outcomes does unforgiveness entail among EFL teachers?
2. To what extent are EFL teachers forgiving towards themselves, their students, and unpleasant classroom situations?

3. METHODS

Design

To further theorize (un)forgiveness within L2 teaching domain, the present study provided preliminary evidence on EFL teachers' tendency towards forgiving themselves, their students, and unpleasant situations and outcomes of unforgiveness. In this vein, an exploratory sequential mixed-methods design was utilized where the qualitative data is obtained prior to the quantitative phase. The qualitative aspect of the study helps to identify the key themes, while the quantitative phase permits generalization and statistical analysis, which paves the way for future inquiries (Creswell & Creswell, 2017). This design was selected to see whether English teachers tend to replace or allay the outcomes of unforgiveness via forgiving motives.

Context and participants

Two hundred and seventy-six Iranian EFL teachers with experience ranging from 1 to 20 years were recruited as the study participants using a convenient sampling method. The sample included 171 females (62%) and 105 males (38%), aged between 20 to 50 years old (M=31). All the

respondents were English language teachers who worked in state, private, or both channels of education in Iran, where English is taught as a foreign language along with Arabic in junior and senior high schools. The majority of the participants (58%) were M.A. holders (N = 160), and the rest were (34%) B.A. holders (N = 93) and (8%) Ph.D. candidates (N = 22). Table 1 summarizes the demographics of the respondents.

Table 1: Demographics of participants

	Range/type	Number
Gender	Male	105 (38%)
	Female	171 (62%)
Age	20-25	52 (19%)
	26-30	84 (30%)
	31-35	56 (20%)
	36-40	64 (23%)
	40-50	20 (7.5%)
Years of experience	1-5	123
	6-10	111
	11-15	34
	16-20	8

4. INSTRUMENTS

Semi-structured Interview

The researcher used three semi-structured questions (Appendix) aimed at unforgiveness within L2 classrooms to elicit qualitative data. The design of the questions is in line with Hanson et al. (2005), who elaborated on the use of semi-structured interviews by mentioning that such questions would aim at the subjective perspectives of language teachers. Further, the semi-structured questions would be beneficial to gain in-depth insights about the lived experiences and emotions. Moreover, since the study tried to profile the initial mixed data on forgiveness, the inclusion of semi-structured questions in the qualitative phase would expand the existing literature on forgiveness and its counterpart (Toussaint et al., 2017). Thus, the first interview question aimed at eliciting data on the extent to which the respondents see themselves as a forgiving person. This question provided a basis to distinguish the unforgiving teachers from forgiving ones. Accordingly, teachers with six or higher scores on the scale were treated as unforgiving teachers. The second interview question expanded previous question by delving into reasons for which L2 teachers become unforgiving. Finally, the third question asked them about their feelings during unforgiveness. In doing so, 25 Iranian EFL teachers were randomly selected from the total 267 study participants and were asked to participate in the initial qualitative phase of the study. The interviews continued until the satisfactory saturation point was reached, and no new information emerged afterward (O'Reilly & Parker, 2013). Respondents were free to add any additional information or leave the interview on will. They also had the freedom to provide the answers in Persian or English, but all of their answers were transcribed into English for the analysis phase. Six non-participants were recruited to ensure the trustworthiness of the questions (Nassaji, 2020). Content validation of the questions was also confirmed by the opinion of three applied linguistics experts. Each interview lasted for about 15-20 minutes.

Heartland Forgiveness Scale (HFS)

HFS is an 18-item scale constructed by Thompson et al. (2005) and aims at forgiveness from three angles, namely, forgiving oneself, others, and circumstances beyond one's control by

dedicating six items to each subscale aligned on a 7-point Likert ranging from 1 (almost always false of me) to 7 (almost always true of me). Since the scale targets forgiveness from a general perspective, some minor adaptations were made to the wording of the scale to make it appropriate for language teaching and classroom contexts. In this vein, items such as "If others mistreat me, I continue to think badly of them" were changed into "If my students mistreat me, I continue to think badly of them."

Data collection and analysis procedure

Data of the present exploratory sequential mixed-methods study was collected in two phases. The qualitative phase attempted to unravel the psycho-emotional outcomes of unforgiveness motives among EFL teachers. Prior to both phases, all the respondents were informed about the objectives of the study and were ensured anonymity and confidentiality concerns following the guidelines outlined by BERA (2011). In the qualitative phase, 25 Iranian teachers answered three semi-structured questions in 15-20 minutes, and their answers were transcribed into English. Using a thematic analysis approach as outlined by Boyatzis (1998), the researcher read the answers multiple times to become familiar with the overall tone of the answers. The transcribed interviews were first codified through open thematic coding to identify the key concepts about the teachers' perceptions towards the outcomes unforgiveness. Consequently, themes were grouped according to their semantic interconnectedness and transparency in the axial coding stage. The final selective stage helped label and outline the similar key groups, building the major themes. The processes of coding, categorizing, and labeling were checked out by a qualitative research expert and another expert L2 researcher to ensure the inter-rater agreement process during which the discrepancies were negotiated and resolved (Gass & Mackey, 2000), resulting in the estimated .92 Cohen's Kappa, hence, ensuring the dependability and confirmability of the findings (Nassaji, 2020). Moreover, the credibility of the analyses was checked through a member-checking process in which the respondents reflected on the extracted themes and categories (Lincoln & Guba, 1985).

In the quantitative phase of the study, teachers' attitudes towards forgiving themselves, their students, and classroom situations were probed using the HFS. Before the primary quantitative data collection, the scale was piloted, and the responses of 40 individuals were used to test the psychometrics of the scale. Consequently, the respondents were added to a Telegram group and were given a link designed by Google Forms. By clicking on the link, the participants were guided to a two-page form in which they were asked to fill out the participant consent form along with demographic information and the forgiveness scale, the completion of which required less than 5 minutes.

5. RESULTS

Qualitative findings

The first research question sought to identify the adverse psycho-emotional outcomes of unforgiveness. In this vein, three interview questions (Appendix) guided the qualitative phase of the study. The first interview prompt concerned the extent to which teachers rated themselves as forgiving on a scale of one to ten. Individuals who ranked five or more (n=15) were categorized as forgiving, and those who rated themselves on a scale of one to four were treated as unforgiving teachers (n=9). However, all the respondents asserted that sometimes, during their teaching practice, they become unforgiving and that all of them had experiences of unforgiveness for the most salient and frequent reason, which was the students' misbehaviors (n=25), which outscored all other unforgiveness provokers such as teachers' economic status (n=4) and introvert personality (n=2). The following excerpts from participants seven and twelve clarify teachers' stance regarding the misbehaviors of their students:

"Every time I have to go to that class, I know that something bad would happen, because the students are very rude and don't listen to me. Although I've tried so many times to let go of their behaviors, sometime it becomes unbearable and for misbehaviors of one student, I become unforgiving of them all and punish them by lowering their scores, and criticizing them for their grammatical, pronunciation, and spelling mistakes." [p. 7]

"Parents and educational system see us as babysitters who have to educate the student; however, we are only one part of the whole. Being an unforgiving person is not I personally adhere in out-class environment, but dealing with over 30 students varying in mindsets and behaviors in each class and having at least classes each day, drains a lot of energy and being an unforgiving person in some instances is natural." [p. 12]
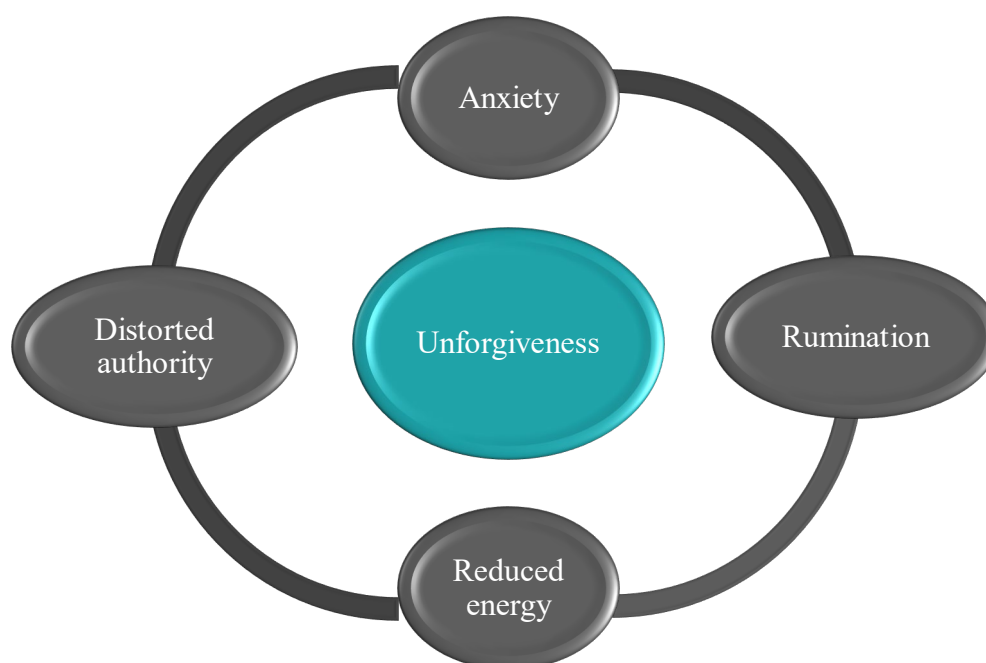
Figure 1: Outcomes of L2 teachers' unforgiveness

By asking the third interview question, teachers elaborated on the outcomes of being unforgiving. Rumination emerged as the most salient theme (n=22), followed by, increased anxiety (n=20), disrupted authority (n=19), and reduced energy (n= 14). Precisely, 22 of the teachers mentioned that unforgiveness makes them think and overthink unpleasant situations for hours and days even after the class is finished:

"It was the time when I spent a whole week thinking about one of my students who had said something inappropriate in the class and made me angry. Things got out of control, and I shouted at her out of anger. Afterwards, it took me a week for letting go of the thought of that day." [p. 2]

Additionally, teachers (n=19) noted that being unforgiving makes classroom management more difficult because students' misbehaviors make them feel angry and lonely. Teachers believed that the unpleasant classroom climate threatened their authority and agency since students became less supportive of angry teachers, did not follow orders, and welcomed more conflicts. For this reason,

teachers noted that they had to switch to an unforgiving mood and practice hatred, bitterness, and less flexible that drains much energy out of them (n=14).

> "After my in-class conflicts, we experience some minutes of silence. Afterwards, I hear that my students spread the word in the school that I am an unforgiving person, but the reality is that they don't see themselves and everyone criticizes me and expects patience and forgiveness, but no one blames the students for they say many bad words and mistreat me and their classmates" [p. 14]
>
> "Being unforgiving drains my energy and soul. I have no choice but to say nothing most of the times I have troubles. I just check the clock and burst out of the class once it is finished. I myself am a quiet and introvert person, but dealing with so many misbehaviors has reduced my patience. I sometimes think that my students abuse my kindness and forgiveness. I wasn't like this the time I entered this profession, but now after 10 years of experience, I feel emotionally, mentally, and physically drained. Nobody cares about teachers' mentality and we have to show off that everything is in control while we are in the class, but the reality is that trouble finds its way to your class and sometimes you have to be tough for your own sake, otherwise, students become abusive and rude." [p. 5]

Quantitative results

In the quantitative phase, all the participants (n=276) filled out the HFS questionnaire and provided information on the extent to which they forgive themselves, their students, and the unpleasant situations. Prior to data analysis, Cronbach's alpha method showed .891 index, which is described as a good reliability indicator by George and Mallery (2020). Table 2 displays the skewness and kurtosis indices of normality. Since all values were within the ranges of ±2, it was concluded that the present data did not show any significant deviation from a normal distribution (Bachman, 2005; George & Mallery, 2020).

Table 2: Skewness and Kurtosis Indices of Normality

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Self	276	.151	.147	-.450	.292
Students	276	-.342	.147	-.761	.292
Situations	276	-.062	.147	-.286	.292

The only quantitative research question raised in this study was analyzed through Multivariate. Since this study did not include any independent (grouping) variables, there was no need to check the assumptions of homogeneity of variances, homogeneity of covariance matrices, and sphericity. All these assumptions require at least two groups' means to be compared. Table 3 shows the EFL teachers' means of forgiving themselves, their students, and unpleasant situations. EFL teachers had roughly equal means on forgiving self (M = 27.12, SE = .389), students (M = 26.80, SE = .500), and unpleasant situations (M = 26.44, SE = .427).

Table 3: Descriptive Statistics for Forgiving Self, Students, and Unpleasant Situations

Forgiving	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Self	27.127	.389	26.362	27.892
Students	26.808	.500	25.824	27.792
Unpleasant Situations	26.446	.427	25.605	27.287

Table 4 shows the main results of MANOVA. The results (F (2, 274) = 2.63, p > .05, pη2 = .019 representing a weak effect size) indicated that there were not any significant differences between EFL teachers' forgiving themselves, others, and unpleasant situations. Figure 2 shows the mean described in Table 4.

Table 4: Multivariate Tests for Forgiving Self, Others, and Unpleasant Situations

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Forgiving	Pillai's Trace	.019	2.631	2	274	.074	.019
	Wilks' Lambda	.981	2.631	2	274	.074	.019
	Hotelling's Trace	.019	2.631	2	274	.074	.019
	Roy's Largest Root	.019	2.631	2	274	.074	.019
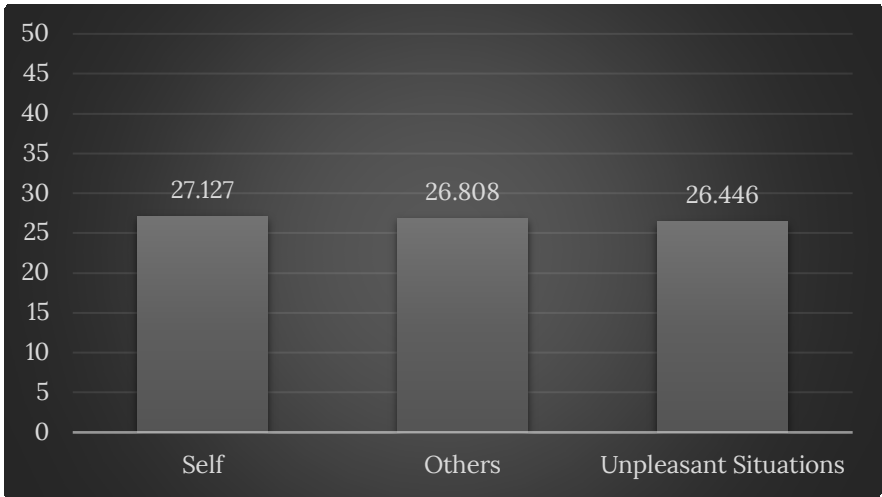
Figure 2: Means for Forgiving Self, Others, and Unpleasant Situations

6. DISCUSSION

The paucity of research for justifying the inclusion of forgiveness in peacebuilding and loving pedagogies of L2, along with the dearth of evidence for highlighting tension-coping potentialities of forgiveness in language classroom contexts, motivated the researcher to fill the gap by conducting an exploratory sequential mixed-methods study the qualitative aspect of which identified primary psycho-emotional outcomes of unforgiveness and the quantitative aspect provided evidence on the forgiveness tendencies of EFL teachers towards themselves, their students, and unpleasant classroom context.

Accordingly, teachers asserted that whenever their merciless side (i.e., unforgiveness) triggers, they start ruminating the problems and overthink about them anxiously which further leads to the

disruption of their authority and reduced energy. The findings clearly illustrate one's cold emotion shrouded by anger, hatred, and bitterness against the transgressor, which is in line with Worthington and Wade's (1999) definition of unforgiveness. It is noteworthy that psycho-emotional notions occur simultaneously, and teachers might feel various in short or long time periods (Dewaele et al., 2019); thus, the emergence of rumination, reduced energy, and increased anxiety, as shown by the qualitative findings, are to be discussed and justified relative to each other. Accordingly, rumination (i.e., mulling over an offense) triggers a depressed mood which in turn reduces one's energy and makes forgiveness difficult. The idea builds upon Worthington and Wade's (1999) elaborations and recent discussions of forgiveness (e.g., Debreli & Ishanova, 2019; Dwomoh et al., 2022; Haikola, 2023; Rapp et al., 2023; Sapmaz et al., 2016; Tigert et al., 2022; Tiwari et al., 2023) and expands the literature of L2 teachers' emotions by suggesting that in light of rumination and the triggered depression, language teachers might feel hopeless and threatened by the classroom situations and lose their concentration and focus, hence, embracing the sense of disrupted authority. An unforgiving L2 teacher would possibly mule over negative experiences and keep the detrimental thoughts alive. This might lead to the formation of a negative attitude toward particular L2 classes and students, which in turn disturbs the interpersonal relationship between language teachers and learners. Additionally, based on the results and by considering anxiety, rumination, distorted authority, and reduced energy alongside each other, it can be further argued that unforgiving L2 teachers clung to negative thoughts would possibly lose the opportunity to see the bright side of their efforts and their attempts would be negatively shrouded by the presence of disturbing feelings that could be resolved by forgiveness.

Moreover, the combination of qualitative and quantitative results permits one to argue that language teachers' (un)forgiveness can be justified relative to the prosocial response and dispositional stances of forgiveness (McCullough & Worthington, 1994; Scobie & Scobie, 1998). The former stance (i.e., prosocial response) justifies EFL teachers' tendency towards forgiving themselves, their students, and the situations, while the latter vantage point (i.e., dispositional view) pertains that the interpersonal circumstances trigger people to show or hide their mercy to themselves and others. Accordingly, and based on Mullet et al.'s (1998) postulation of the dispositional view, it can be argued that language classrooms cradle an array of psycho-emotional factors by which EFL teachers fluctuate in-between unforgiving-forgiving continuum.

The forgiving proclivity of the EFL teachers, as illustrated by the quantitative results, might be further justified with reference to McCullough and Witvliet's (2002) elaborations on the social characteristic viewpoint of forgiveness based on which a breach in the social relations threatens the shared intimacy, commitment, and trust, thus, to recover the sense of intimacy and trust, L2 teachers are prone to practice forgiveness in their interpersonal dialogues with their students. More importantly, it can be argued that the teachers' willingness towards forgiving their students might be a motive to recover their authority, which is disrupted in classroom context. As the teachers noted, whenever the students misbehave, a sense of loneliness and anger flourish, and these two factors might further push the teachers into their detrimental state of mind wherein they overthink and ruminate negative thoughts and feelings and as a result, lose their face and authority in the class. Thus, the findings contribute to the emotion-laden studies in L2 education by further justifying the recognition of forgiveness as an aspect of teachers' emotional competence about which empirical evidence was lacking (Madalińska-Michalak & Bavli, 2018). In other words, results support the idea that L2 teachers' forgiveness would in turn cultivate the learners' awareness about tolerance, integrity, and fairness along with personal and social responsibilities (Schleicher, 2012; Madalińska-Michalak, 2015). Arguably, L2 teachers' forgiveness strengthens the bonds and relatedness between teachers and students, hence increasing the interpersonal rapport and intimacy, which are distorted through unforgiveness. As noted earlier, a non-forgiving

teacher is perceived as an indolent, incompetent, and offensive individual (Kearney et al., 1991). Such an unjust and imbalanced situation might possibly put the class in an offensive state in which the teachers feel more distressed and helpless (Debreli & Ishanova, 2019). Therefore, one possible and plausible justification for the teachers' tendency towards relying on forgiveness, as resulted in the present study, lies in that they try to prevent distressful situations by forgiving their students in order to deflect the emergence of unwanted negative factors that infect the wellbeing of the teachers and students altogether (Sapmaz et al., 2016).

Therefore, in line with previous studies (e.g., Davis et al.,2015; Dwomob et al., 2022; MacIntyre et al., 2020; Tigert et al., 2022) who highlighted the significance of finding practical solutions to the teachers' tensions, it can be claimed that the present findings posit the idea that forgiveness can be considered as a tension- and stress-coping strategy among language teachers. The findings contribute to the existing PosPsy-laden studies of L2 emotions by suggesting that language teachers' forgiveness paves the way for an emotionally supportive context flexible to diverse psycho-emotional fluctuations of the language teachers and their students. Further, the present findings provide more evidence for Allen and Leary (2010) and Birch and Nasser (2017), who highlighted the importance of coping strategies and forgiveness-laden pedagogies. Additionally, it suggests that language teachers' forgiveness would potentially prevent language teachers' emotional disengagement, distorted interpersonal relationships with learners, and unpleasant language learning experiences for the students.

Moreover, the quantitative results are also justifiable relative to Exline et al.'s (2003) dichotomy of decisional-emotional forgiveness, according to which it can be argued that EFL teachers decide to forgive because they know that their mercy soothes the situation, brings peace to the classroom, and help the individuals to reconcile the distorted interpersonal relations. Meanwhile the emotional forgiveness of the EFL teachers might be traceable in their sense of love, compassion, empathy, and love. This idea is supported by reflecting on the respondents' answers where the majority of them (n=168; 60%) scored mid- to the highest score to the item "*Although my students have hurt me in the past, I have eventually been able to see them as good individuals*" in Heartland Forgiveness Scale. This implies that EFL teachers are prone to search for findings silver linings and light despite experiencing the darkness of hatred, loneliness, and helplessness in the hope of leading the class toward tolerance, respect, integrity, fairness, and awareness, which have been listed as the characteristics of emotionally competent teachers who are willing to help their students grow and flourish (Madalińska-Michalak, 2015; Schleicher, 2012).

Arguably, a subtle yet noteworthy point can also be considered regarding the L2 teachers' forgiveness, and that is the possibility of some sacrifice that is required to mend the breach between the teacher and students. In other words, it can be claimed that the unforgiving status of the classroom context warns the teacher to reconcile the situation; otherwise, the situation might get worse, and the class might become unbearable, especially concerning the fact that education year in the Iranian context and many other settings extends in nine months and teachers are aware that tolerating a sense of resentment and hatred for nine months would become an emotionally overwhelming and intense burden, thus instead of remaining in a state of unforgiveness, they probably tend to sacrifice their own emotions and put one step forward towards compensating the situation and repairing the distorted bonds and community. The aforementioned idea is supported by Harris et al. (2006), who suggested that forgiveness leads to less stress and anger if individuals see it as a means of one's growth. In doing so, Luskin (2002) suggested that people might consider restatement of negative circumstances in a positive way, mindfulness practices, and focusing on one's kindness and personal growth in light of unforgiveness-reducing endeavors. Furthermore, quantitative analyses provided evidence in line with and in support of Luskin's (2002) model of forgiveness, based on which forgiveness occurs relative to oneself, others, and situations. As

supported by the results, language teachers tend to reflect forgiveness in all three layers of Luskin's model. However, roughly speaking, they tend to be more forgiving towards themselves (m=27.127) relative to their students (m=26.808) and the situations (m=26.446). In line with previous research, the present study suggests that both self- and others' forgiving tendencies function as stress-coping strategies one might undertake to reduce tensions and unpleasant feelings (Davis et al., 2015). Therefore, it can be argued that EFL teachers also rely on forgiveness to detach themselves from rumination, anxiety, reduced energy, and disrupted authority to embrace wellbeing and peace.

The present study yields several implications for language teachers in particular and teacher educators and researchers in general. First, the study signals that forgiveness is not a weakness but a strength, and choosing forgiveness over unforgiveness would be a win-win for teachers and students altogether. L2 teachers can consider forgiveness as a stress-coping strategy and a bridge toward personal growth, courage, and temperance. The results implied that teachers' unforgiveness leads to rumination, reduced energy, distorted authority, and increased anxiety, the combination of which would potentially strain the interpersonal relationships between L2 teachers and learners. Moreover, unforgiveness might provide a sense of incompetence and indolence to L2 teachers, which makes them feel lonely and helpless in L2 class. Further, the findings implied that teachers' unforgiveness might infect their job satisfaction by shaping a negative mindset toward teaching and learners and eroding joy and fulfillment, hence making it harder to cultivate positive relations and communication. On a larger scale, the findings further justified the inclusion and recognition of forgiveness in peacebuilding and loving pedagogy frameworks, which attempt to help individuals thrive in stressful situations and flourish emotionally and psychologically (Azzi, 2022; Derakhshan et al., 2022; Gabryś-Barker, 2021; Wang et al., 2022). In other words, results implied that nurturing forgiveness and informing the language teachers about the negative outcomes of unforgiveness would equip the teachers with the required competency necessary for infusing peace, understanding, and love into the classroom context. Further, it warned us about the probability of creeping negative and detrimental feelings into the language teaching context despite unforgiveness. In other words, if nurturing a loving, peaceful, and emotionally-supportive language teaching and learning is expected, then investment in raising teachers' awareness about forgiveness and nurturing emotionally competent teachers becomes an inevitable task for educators. The trial, in turn, not only benefits the language teachers but also equips the learners with tolerance, awareness, respect, integrity, and responsibility.

Pedagogically, the findings contribute to the field by suggesting that L2 teachers can reflect on themselves and their emotions to nurture awareness about their emotional boundaries. In other words, teacher educators are suggested to inform the teachers that forgiveness is an option and process which can lead to personal growth and kindness. Teachers are suggested to experience anger, distress, and rumination to obtain a tangible mindset about the negative feelings that these experiences might entail. Meanwhile, they would also consider the idea that holding on to grudges and bitterness would further infect their wellbeing and job satisfaction. As noted earlier, teachers are only a part of the educational domino and should not blame themselves for anything that occurs under their authority. Thus, shifting perspectives and looking at classroom conflicts and tensions from different viewpoints would be another practical solution for practicing forgiveness. Most of the tensions between teachers and learners might be traceable to a lack of proper communication and understanding. L2 teachers are suggested to learn that forgiveness starts by being compassionate and forgiving towards oneself. In other words, teachers are to be reminded that everyone makes mistakes; thus, torturing oneself with negative and disturbing thoughts for students' faults is not a proper solution to classroom tensions.

Language teaching and learning are in the infancy stage of forgiveness-laden studies. Future studies might consider the forgiveness of L2 teachers relative to their religiosity, shame, anger, agreeableness, empathy, and altruistic motives since these factors have been discussed in the literature to be highly influential on one's forgiveness, and evidence aiming at them within the L2 domain is scarce. Additionally, more robust data collection and research designs, such as longitudinal or experimental designs, can provide a more in-depth view of fluctuations of forgiveness over time. Diverse sample sizes, demographics, and contexts can also be considered while studying, interpreting, and generalizing future studies.

7. CONCLUSION

The present study shed light on unforgiveness and forgiveness among EFL teachers and suggested that forgiving oneself and others requires courage and is not a weakness. The study metaphorically signaled that if language teachers practice forgiveness and remember that their students need their help, the distance between them diminishes, and they shall enjoy unity, trust, and intimacy. Findings indicated that experiencing unpleasant situations in the classroom context happens for teachers, and they are not alone in this sense. However, the extent to which they remain in the darkness of hatred and bitterness depends on their choice of grudging over things that cannot be reverted but can be compensated by forgiving themselves and others in favor of spreading love, kindness, and humanity.

References

Allen, A. B., & Leary, M. R. (2010). Self-Compassion, stress, and coping. *Social and Personality Psychology Compass*, 4(2), 107-118. https://doi.org/10.1111/j.1751-9004.2009.00246.x

Azzi, R. (2022). Critical group work for dialogue and peacebuilding. In B. Birch (Ed.), *Creating classrooms of peace in English language teaching* (pp. 139-151). Routledge.

Bachman, L. F. (2005). *Statistical analysis for language assessment* (2nd ed.). Cambridge University Press.

BERA. (2011). *Ethical guidelines for educational research*. British Educational Research Association.

Berry, J. W., & Worthington, E. L. (2001). Forgivingness, relationship quality, stress while imagining relationship events, and physical and mental health. *Journal of Counseling Psychology*, 48(4), 447-455. https://doi.org/10.1037/0022-0167.48.4.447.

Birch, B., & Nasser, I. (2017). Forgiveness as pedagogy in the English language classroom. *English Across the Fracture Lines: The Contribution and Relevance of English to Security, Stability and Peace*, 39.

Black, D. (1998). *The social structure of right and wrong*. Academic Press.

Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage Publications.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.

Davis, D. E., Ho, M. Y., Griffin, B. J., Bell, C., Hook, J. N., Van Tongeren, D. R., Cirleen, D., Worthington, E. L., & Westbrook, C. J. (2015). Forgiving the self and physical and mental health correlates: A meta-analytic review. *Journal of Counseling Psychology*, 62(2), 329–335. https://doi.org/10.1037/cou0000063

Debreli, E., & Ishanova, I. (2019). Foreign language classroom management: Types of student misbehaviour and strategies adapted by the teachers in handling disruptive

behaviour. *Cogent Education*, 6(1), 1648629. https://doi.org/10.1080/2331186X.2019.1648629

Derakhshan, A., Dewaele, J. M., & Azari Noughabi, M. (2022). Modeling the contribution of resilience, well-being, and L2 grit to foreign language teaching enjoyment among Iranian English language teachers. *System*, 102890. https://doi.org/10.1016/j.system.2022.102890

Derakhshan, A., Fathi, J., Pawlak, M., & Kruk, M. (2022). Classroom social climate, growth language mindset, and student engagement: The mediating role of boredom in learning English as a foreign language. *Journal of Multilingual and Multicultural Development*. https://doi.org/10.1080/01434632.2022.2099407

Derakhshan, A., Greenier, V., & Fathi, J. (2022). Exploring the interplay between a loving pedagogy, creativity, and work engagement among EFL/ESL teachers: A multinational study. *Current Psychology*, 1-20. https://doi.org/10.1007/s12144-022-03371-w

Dewaele, J. M., Chen, X., Padilla, A. M., & Lake, J. (2019). The flowering of positive psychology in foreign language teaching and acquisition research. *Frontiers in Psychology*, 10, 2128. https://doi.org/10.3389/fpsyg.2019.02128

Dwomoh, R., Osei-Tutu, A. A., Chhikara, A., Zhou, L., Oudghiri, S., & Bell, T. (2022). Critical understanding of English learners: Experience and practice of educators in a professional development course. *TESOL Quarterly*. https://doi.org/10.1002/tesq.3200

Enright, R. D. (2001). *Forgiveness is a choice: A step-by-step process for resolving anger and restoring hope*. APA Life Tools.

Enright, R. D., & Coyle, C. T. (1998). Researching the process model of forgiveness within psychological interventions. In E. L. Worthington, Jr. (Ed.), *Dimensions of forgiveness: Psychological research and theological perspectives* (pp. 139–162). Templeton Foundation Press.

Exline, J. J., Worthington, E. L., Jr., Hill, P., & McCullough, M. E. (2003). Forgiveness and justice: A research agenda for social and personality psychology. *Personality and Social Psychology Review*, 7, 337–348. https://doi.org/10.1207/S15327957PSPR0704_06

Fincham, F. D. (2015). Facilitating forgiveness using group and community interventions. In S. Joseph (Ed.), *Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life* (pp. 659-680). John Wiley & Sons.

Fry, D. P., & Bjorkqvist, K. (Eds.). (1997). *Cultural variation in conflict resolution: Alternatives to violence*. Erlbaum.

Fu, H., Watkins, D., & Hui, E. K. P. (2004). Personality correlates of the disposition towards interpersonal forgiveness: A Chinese perspective. *International Journal of Psychology*, 39, 305–316. https://doi.org/10.1080/00207590344000402

Gabryś-Barker, D. (2021). *Peacebuilding in language education. Innovations in theory and practice*. Multilingual Matters.

Gass, S. M., & Mackey, A. (2000). *Stimulated recall methodology in second language acquisition*. Erlbaum.

George, D., & Mallery, P. (2020). *IBM SPSS statistics 26 step by step: A simple guide and reference*. Routledge.

Grimmer, T. (2021). *Developing a loving pedagogy in the early years: How love fits with professional practice*. Routledge.

Haikola, A. (2023). Conversations with God: How Are Religion and Spirituality Used to Make Sense of Forgiveness? *Pastoral Psychology*, 1-17. https://doi.org/10.1007/s11089-023-01081-z

Hanson, W. E., Creswell, J. W., Clark, V. L. P., Petska, K. S., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, 52(2), 224. https://doi.org/10.1037/0022-0167.52.2.224.

Harris, A. H. S., Luskin, F., Norman, S. B., Standard, S., Bruning, J., Evans, S., & Thoresen, C. E. (2006). Effects of a group forgiveness intervention on forgiveness, perceived stress, and trait-anger. *Journal of Clinical Psychology*, 62, 715-733. https://doi.org/10.1002/jclp.20264

Kearney, P., Plax, T. G., Hays, E. R., & Ivey, M. J. (1991). College teacher misbehaviors: What students don't like about what teachers say and do. *Communication Quarterly*, 39, 309–324. https://doi.org/10.0180=01463379109369808

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Sage.

Luskin, F. (2002). *Forgive for good*. Harper Collins.

MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, 94, 102352. https://doi.org/10.1016/j.system.2020.102352.

MacIntyre, P. D., Ross, J., Talbot, K., Mercer, S., Gregersen, T., & Banga, C. A. (2019). Stressors, personality and wellbeing among language teachers. *System*, 82, 26-38.

Madalinska-Michalak, J. (2015). Developing emotional competence for teaching. *Croatian Journal of Education*, 17(2), 71–97. https://doi.org/10.15516/cje.v17i0.1581.

Madalińska-Michalak, J., & Bavli, B. (2018). Developing emotional competence for L2 teaching in second language teacher education: Opportunities and challenges for teacher education in Poland and Turkey. *Emotions in Second Language Teaching: Theory, Research and Teacher Education*, 403-423. https://doi.org/10.1007/978-3-319-75438-3_22

Mason, C., & Dougherty, M. (2022). Is forgiveness openness to reconciliation? *Inquiry*, 1-9. https://doi.org/10.1080/0020174X.2022.2080108

McConnell, J. M. (2015). A conceptual-theoretical-empirical framework for self-forgiveness: Implications for research and practice. *Basic and Applied Social Psychology*, 37(3), 143–164. https://doi.org/10.1080/01973533.2015.1016160

McCullough, M. E., Pargament, K. I., & Thoresen, C. T. (Eds.). (2000). *Forgiveness: Theory, research, and practice*. Guilford.

McCullough, M. E., & Worthington, E. L., Jr. (1994). Models of interpersonal forgiveness and their applications to counseling: Review and critique. *Counseling and Values*, 39, 2–14. https://doi.org/10.1002/j.2161-007X.1994.tb01003.x

McCullough, M. E., & Witvliet, C. V. (2002). The psychology of forgiveness. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 446–458). Oxford University Press.

Mullet, É., Houdbine, A., Laumonier, S., & Girard, M. (1998). Forgivingness: Factor structure in a sample of young, middle-aged, and elderly adults. *European Psychologist*, 3, 289–297.

Nassaji, H. (2020). Good qualitative research. *Language Teaching Research*, 24(4), 427–431. https://doi.org/10.1177/1362168820941288

Neu, J. (2011). On loving our enemies. In C. Fricke (Ed.), *The ethics of forgiveness* (pp. 130-142). Routledge.

O'reilly, M., & Parker, N. (2013). Unsatisfactory saturation: a critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research*, 13(2), 190-197. https://doi.org/10.1177/1468794112446106

Page, J. (2018). Characterizing the principles of professional love in early childhood care and education. *International Journal of Early Years Education*, 26(2), 125-141. https://doi.org/10.1080/09669760.2018.1459508

Paz, R., Neto, F., & Mullet, E. (2008). Forgiveness: A China-Western Europe comparison. *Journal of Psychology: Interdisciplinary and Applied*, 142, 147–157. https://doi.org/10.3200/JRLP.142.2.147-158.

Peterson, C. & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. Oxford University Press.

Rapp, H., Wang Xu, J., & Enright, R. D. (2022). A meta-analysis of forgiveness education interventions' effects on forgiveness and anger in children and adolescents. *Child Development*, 93(5), 1249-1269. https://doi.org/10.1111/cdev.137771

Rimm-Kaufman, S., & Sandilos, L. (2011). Improving students' relationships with teachers to provide essential supports for learning. *Teacher's Modules*, 6(8).

Sapmaz, F., Yıldırım, M., Topçuoğlu, P., Nalbant, D., & Sızır, U. (2016). Gratitude, forgiveness and humility as predictors of subjective well-being among university students. *International Online Journal of Educational Sciences*, 8(1), 38-47. http://dx.doi.org/10.15345/iojes.2016.01.004

Schleicher, A. (2012). *Preparing teachers and developing school leaders for the 21st century: Lessons from around the world*. OECD Publishing.

Scobie, E. D., & Scobie, G. E. W. (1998). Damaging events: The perceived need for forgiveness. *Journal for the Theory of Social Behaviour*, 28, 373–401. https://doi.org/10.1111/1468-5914.00081

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14. https://doi.org/10.1007/978-3-030-33264-8_3

Snyder, C. R., & Lopez, S. J. (Eds.). (2001). *Handbook of positive psychology*. Oxford University Press.

Strabbing, J. T. (2020). Forgiveness and Reconciliation. *Australasian Journal of Philosophy*, 98(3), 531-545. https://doi.org/10.1080/00048402.2019.1687532

Thompson, L. Y., Snyder, C. R., Hoffman, L., Michael, S. T., Rasmussen, H. N., Billings, L. S., Heinze, L., Neufeld, J., E., Shorey, H., S., Roberts, J., C., & Roberts, D. E. (2005). Dispositional forgiveness of self, others, and situations. *Journal of Personality*, 73(2), 313-360. https://doi.org/10.1111/j.1467-6494.2005.00311.x

Thompson, L., Snyder, C. R., & Hoffman, L. (2005). Heartland forgiveness scale. *Faculty Publications, Department of Psychology*, 452. https://digitalcommons.unl.edu/psychfacpub/452

Tigert, J. M., Peercy, M. M., Fredricks, D., & Kidwell, T. (2022). Humanizing classroom management as a core practice for teachers of multilingual students. *TESOL Quarterly*, 56(4), 1087-1111. https://doi.org/10.1002/tesq.3093

Tiwari, G. K., Pandey, R., Rai, P. K., Shukla, M., Jain, R., Budhwani, P., … & Sharma, D. (2023). Understanding the nature and consequences of transgressions and forgiveness in the workplace in India. *Interpersona: An International Journal on Personal Relationships*, 17(1), 45-68.

Toussaint, L. L., Webb, J. R., & Hirsch, J. K. (2017). Self-forgiveness and health: A stress-and-coping model. In L. Woodyatt, E. L. Worthington Jr., M. Wenzel, & B. J. Griffin

(Eds.), *Handbook of the psychology of self-forgiveness* (pp. 87-99). Springer. https://doi.org/10.1007/978-3-319-60573-9_7

Toussaint, L., Worthington, E. L., Webb, J. R., Wilson, C., & Williams, D. R. (2023). Forgiveness in human flourishing. In M. T. Lee, L. D. Kubzansky, & T. J. VanderWeele (Eds.), *Human flourishing* (pp. 117-128). Oxford University Press.

Wang, Y., Derakhshan, A., & Pan, Z. (2022). Positioning an agenda on a loving pedagogy in second language acquisition: Conceptualization, practice, and research. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.894190

Wang, Y., Derakhshan, A., & Zhang, L. J. (2021). Researching and practicing positive psychology in second/foreign language learning and teaching: The past, current status and future directions. *Frontiers in Psychology*, 12. https://doi.org/10.3389/fpsyg.2021.731721

Wettstein, A., Jenni, G., Schneider, S., Kühne, F., Grosse-Holtforth, M., & La Marca, R. (2023). Teachers' perception of aggressive student behavior through the lens of chronic worry and resignation, and its association with psychophysiological stress: An observational study. *Social Psychology of Education*, 1-20. https://doi.org/10.1007/s11218-023-09782-2

Winding, T. N., Aust, B., & Andersen, L. P. S. (2022). The association between pupils aggressive behaviour and burnout among Danish school teachers-the role of stress and social support at work. *BMC Public Health*, 22(1), 1-12. https://doi.org/10.1186/s12889-022-12606-1

Worthington, E. L., Jr., Berry, J. W., & Parrott, L., III. (2001). Unforgiveness, forgiveness, religion, and health. In T. G. Plante & A. C. Sherman (Eds.), *Faith and health: Psychological perspectives* (pp. 107–138). Guilford Press.

Worthington, E. L., Jr., & Scherer, M. (2004). Forgiveness is an emotion-focused coping strategy that can reduce health risks and promote health resilience: Theory, review, and hypotheses. *Psychology & Health*, 19(3), 385–405. https://doi.org/10.1080/0887044042000196674.

Worthington, E. L., Jr., & Wade, N. G. (1999). The psychology of unforgiveness and forgiveness and implications for clinical practice. *Journal of Social and Clinical Psychology*, 18(4), 385-418. https://doi.org/10.1521/jscp.1999.18.4.385.

Worthington, E. L., Jr., Witvliet, C. V. O., Pietrini, P., & Miller, A. J. (2007). Forgiveness, health, and well-being: A review of evidence for emotional versus decisional forgiveness, dispositional forgivingness, and reduced unforgiveness. *Journal of Behavioral Medicine*, 30(4), 291-302. https://doi.org/10.1007/s10865-007-9105-8

Yin, L. C., Loreman, T., Abd Majid, R., & Alias, A. (2019). The dispositions towards loving pedagogy (DTLP) scale: Instrument development and demographic analysis. *Teaching and Teacher Education*, 86, 102884. https://doi.org/10.1016/j.tate.2019.102884

Appendix

This interview aims at understanding the outcomes of unforgiveness in language classrooms. There are no right or wrong answers as it concerns your subjective understanding based on your experiences. We ask you three main questions, and based on your answers, we might ask additional questions. Feel free to add whatever you think describes you as an English teacher:

1. Do you see yourself as a forgiving person? On a scale of one to ten, please select the extent to which you see yourself as a forgiving or unforgiving person.
2. Have you ever been an unforgiving English teacher? When was it, and for what reasons?

How do you feel when the classroom situation calls for no mercy?

Utilization of Hello Talk Mobile Application in Ameliorating Iranian EFL Learners' Autonomy

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Abstract
Language teaching and learning have become more technologically advanced in recent years. These technological advances may change the nature of education and the place and the time at which the learning process takes place. In this regard, the present study investigated how the HelloTalk application affected Iranian intermediate EFL learners' autonomy. The study enjoyed a pretest-posttest quasi-experimental design. In doing so, 54 intermediate EFL learners were randomly selected from an institute in Isfahan, Iran. The participants were divided into two homogeneous experimental groups based on their level of education (N = 27). Both groups received a multidimensional Learner Autonomy Questionnaire (LAQ) as an online pre-test and post-test on Google Docs. The data was analyzed using Paired Sample T-test, frequencies, and percentages. By comparing different dimensions and the p-values of the two groups from the pre-test to the post-test, the results revealed that utilizing the HelloTalk application significantly and positively affected Iranian intermediate EFL learners' autonomy. Moreover, experts and EG learners had a positive attitude toward using the application. The findings of this study could be fruitful for learners with enough competence but inadequate knowledge of how to become autonomous through mobile applications. It could also provide insights into how technology tools and computer programs could facilitate teaching and learning English.

1. INTRODUCTION

There has been an increasing attraction to incorporating technology into pedagogical purposes in recent years, and our lives are now deeply immersed in technology. By using new technologies, a significant change has been observed in the field of education, which facilitates learning and helps learners achieve a more fulfilled atmosphere. It is a fact that technology cannot be separated from educational environments, and both teachers and learners must be engaged with technology. Moreover, from the 1990s to the 2022s, how technology and foreign languages are connected has

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grown stronger; therefore, it has gained researchers' interest. However, it should be noted that EFL learners still rely on traditional learning methods despite being considered native speakers of the digital language of computers and smartphones.

In light of this, an essential point in learning English as a second language (L2) is learners' autonomy, especially in using mobile applications to learn a second language. Examining the learning and teaching process in second language classrooms revealed that non-native English learners might have good grammar, speaking, writing, and listening knowledge. However, they might lack autonomy and self-regulated learning knowledge compared to native speakers. Moreover, mobile applications complement language learners who have entered formal instruction as well as the first step for beginner autonomous learners. It is mentioned that applications can prepare EFL learners to have regular practices and exercises even when these learners are not formally studying a language but desire to continue practicing (Rosell-Aguilar, 2007).

In this connection, the present study benefited from using a mobile application named HelloTalk. The reasons behind choosing the HelloTalk application and improving Iranian EFL learners' autonomy through this application could be explained in this way. While teaching English to Iranian EFL learners in different English classes, the researcher observed that the learners are too dependent on the teacher for every single problem. Learners must focus on developing and helping or satisfying their internal criteria, such as perception, self-esteem, learning style, etc. However, in reality, especially in Iran, learners depend on the course's instructor, even in higher education.

The HelloTalk application can play a crucial role here by providing authentic learning materials, connecting learners to native speakers' communities, and providing language exchanges. Based on Larsen-Freeman's (2000) point of view, learners depend on the instructor at the beginning of the learning process. However, as the learners continue to learn, they become increasingly autonomous by developing their cognitive, meta-cognitive, social, and affective factors such as intelligence, interests, talents, motivation, and environmental factors. The other factor that needs to be mentioned is that educational applications in general and mobile learning in particular can affect learners' dependency on the teacher. Few researchers have addressed Iranian EFL learners' autonomy. In addition, it seems that no research has been found surveying Iranian EFL learners' autonomy through the HelloTalk mobile application.

According to previous studies, this application has the potential to enhance learners' learning skills. As mentioned by Nugroho et al. (2021), before using this application, the students could not memorize the words well and needed a long time to memorize them correctly. Additionally, in a review of 11 English language learning applications, Valdimarsson (2020) explained that the application is more exciting, and perhaps its novel feature is its social aspect. Moreover, the application can offer various activities such as pronunciation, writing, and reading. In this connection, learning grammar as a sub-skill could be worked on with the aid of native speakers with whom the user comes into contact. According to Nushi et al. (2018), HelloTalk is a beneficial language learning tool, especially for the young generation, due to its social environment, practical use, and meaningful learning.

One delicate point that needs to be answered is whether Iranian EFL learners' autonomy can be increased through mobile applications, especially in the case of the HelloTalk application. The HelloTalk capacities might improve learners' autonomy. This application can supply a good platform for second language learners to learn English and other languages fluently by contextualized visual information. Moreover, using similar applications in classrooms can assist teachers and support learners in creating social connections with the people around them and make autonomous learning easier (Barton & Potts, 2013; Hafner et al., 2013). Therefore, the present

study investigated the utilization of the HelloTalk mobile application for improving learners' autonomy from teachers' and learners' points of view, both inside and outside the class.

2. LITERATURE REVIEW

Researchers have shown an increasing interest in using technology in today's world, especially regarding the positive impacts of technology use on language learning (Kondo et al., 2012; Liakin et al., 2015; 2017; Liu et al., 2018; Stockwell, 2010). According to Clement (2020), the number of non-gaming applications was 3.42 million in August 2020, whereas based on the Apple company announcement in 2018, the number of educational applications had reached 200,000 (Pendlebury, 2018). Therefore, there has been a tremendous shift toward using mobile applications for educational purposes. In modern societies, every single student and teacher works with many devices, which help promote any educational process (Pacheco et al., 2018; Zhernovnykova et al., 2020). Digital technologies have been used as an educational tool for decades because they can increase student engagement in the learning process (Buchanan, 2011; Palaiologou, 2016; Weis et al., 2002).

These new applications have motivated English language learners to change their acquisition strategies and assisted them in being more independent (Lai, 2014a; 21014b). It should be noted that the global pandemic (COVID-19) provides new opportunities for EFL learners and teachers to use new methods, such as the utilization of instructional applications. Learning through mobile applications can lead to some changes, such as turning passive learners into active learners and changing the traditional dependent learning methods into new, more autonomous learning methods, although there is still the question of how to best integrate MALL, especially in higher education (Chwo et al., 2018; Liu et al., 2016). Mobile-assisted language learning (MALL) is the sub-category of mobile learning; therefore, it is crucial to have a definition of M-learning. M-learning is different from other sorts of learning, and it is a method where the learning materials are available for mobile users wherever and whenever they want (O'Malley et al., 2005). Accordingly, Dehkordi (2018) defined it as one technology that takes on more significant importance in teaching, specifically in language learning. In addition, based on Geddes's (2004) point of view, it can be used anywhere and anytime outside the classroom walls.

M-learning was described by O'Malley et al. (2005) as any learning accomplished when learners are not in a steady state and exploit mobile technology. Moreover, Ally (2013) stated that learners' self-esteem, self-confidence, and autonomy might be enhanced through M-Learning and it can motivate learners in the learning process. Accordingly, Sutrisna et al. (2018) defined it as language learning through mobile devices and technologies. Based on Kukulska-Hulme and Traxler (2005), smartphones, tablets, and laptops are mobile devices in MALL that have two essential functions: portability and mobility. Portability and mobility refer to the state of being easy to carry and being used anywhere and anytime.

In light of this, MALL can increase motivation in language learning (Kim et al., 2013) and promote collaboration and interaction (Goh et al., 2012). According to Dashtestani (2013), Iranian English teachers' attitudes toward using mobile phones in teaching and learning English were positive. Chartrand (2016) stated that smartphones, especially dictionary applications, could improve vocabulary mastery and pronunciation. According to the respondents' positive perceptions, Wagner et al. (2016) showed that MALL, as a learning strategy, could support the teaching-learning process.

In addition, the results of Yudhiantara and Saehu's (2017) study revealed that using smartphones in classroom activities led to positive student perception. Oz (2015) mentioned that the intermixture of English learning and technology depends on factors such as technology, teachers' and students' perceptions, and teachers' and students' awareness of technology in

integration into English learning. Grimshaw et al. (2017) indicated that most language teachers worried about the restriction of MALL, although they were open to engaging their students in MALL.

General Outlook of Autonomy

The notion of autonomy has come into existence in several fields of study, such as psychology, philosophy, politics, and education. The term autonomy is derived from the Greek term autonomic/autonomous, which is used to describe someone or something that lives by their own rules (Swaine, 2020). Autonomy, in the process of learning, refers to the management of one's learning (Benson, 2001). In light of this, Holec (1981) provided a learner autonomy definition; in this way, when learners take charge of their learning process and accept responsibility for all decisions related to all aspects of their learning, they are independent.

In addition to what was mentioned above, one of the crucial issues in this regard is Learner Autonomy (LA). LA has assumed research of interest in foreign language learning and teaching. LA can be operationally defined as learners' ability to take responsibility in their learning process. It differs from learner to learner based on factors such as language proficiency, context, and learning goals (Zehani, 2021). Furthermore, LA relates to the awareness of the learning process by learners. White (2003) explained it in this way: when a learner can be autonomous in his/her learning process, and simultaneously, he/she is supposed to collaborate with others.

The other factor that needs to be considered is that teachers have an essential role in learners' independence, whether in or outside the classroom. No wonder instructors can affect the learners' usage of technology devices or mobile applications outside the classroom. In this connection, Hagger and Chatzisarantis (2012) mentioned that teachers could encourage and increase student engagement in independent learning outside of the classroom. Additionally, students are willing to utilize the technological resources that teachers use in the classroom (Fagerlund, 2012; Lai & Gu, 2011). It is worth mentioning that teachers' suggestions and pieces of advice on using technologies can affect students' involvement beyond the classroom (Inozu et al., 2010).

It should be noted that different concepts are closely related to the notion of autonomy. Concerning learners' self-confidence, studies have shown that students lack the confidence to become involved in out-of-classroom activities (Gamble et al., 2012; Qi & Li, 2006). Another factor in this regard is self-direction; self-directed learning and the notion of autonomy are closely interrelated. Self-direction learning is a settled way of thinking or feeling about the learning assignment where the learner is in charge of the decision-making process in his learning (Hadi, 2012). Based on Majedi and Pishkar (2016), through self-directed learning, learners are advanced in the direction of self-evaluation, self-study, and autonomy. In addition, self-directed learning demands that learners take charge and take responsibility for their learning and arrange it for their purposes, recognize and fix learning gaps, choose and perform learning strategies, and assess their learning (Loyens et al., 2008).

Language Learning Studies on Mobile Applications

The use of mobile applications, in general, and the HelloTalk application, in particular, is not only a means of autonomous learning of a foreign language but also an efficient means of training learning in the classroom (Bardus et al., 2021). According to Wang (2010), technology has advanced independent learning through an English learning pattern that includes newspapers, short stories, magazine articles, letters, and internet articles. It can also promote English language competence. In addition, the researchers did not deny the role and importance of using traditional methods (Bardus et al., 2021). Nevertheless, they emphasized that modern teachers must be prepared to face the challenges and changes in the educational process. Furthermore, it is mentioned that mobile applications can aid in the student's learning process and make it more

engaging and accessible at any time or place. A further result indicates positive attitudes toward mobile learning and adequate time spent using smartphones to practice English speaking skills (Ataeifar et al., 2019).

According to Pachler et al. (2017), due to learners' attachment to their mobile phones, these devices are supposed to be a source of inspiration and motivation. The process of teaching and learning is made more developed through the use of technology in educational systems. Based on the National Council for Educational Technology (1967), educational technology can be defined as methods and aids that can improve the process of human learning. It refers to all processes that can help human learning. Schwienhorst (2003) stressed the importance of a motivating and authentic learning environment for learners to become more independent, but these are not sufficient alone. In light of this, Lai et al. (2016) mentioned that there are grounds for supposing that there were mismatches in instructors' and learners' perceptions of instructor engagement and specific roles that teachers could play. By appropriately manipulating the learning environment, reflective, social-interactive, and experimental-participatory learner behavior needs should be fostered.

Recent studies have shown that learners have positive attitudes toward using educational applications as a successful way to learn and train themselves to be autonomous both inside and outside of the classroom. Zehani (2021) examined mobile educational applications' utilization to enhance learners' autonomy in English language learning. The results of this study showed that teachers' and students' attitudes were positive, although the findings should be interpreted with considerable care. First of all, the study focused on first-year EFL students at the Department of English division of the Mohamed Khider University of Biskra; therefore, age and language level have influenced the results. Second, the questionnaire did not have any questions about usability, ease of use, and intention to use the applications that may have affected the result. Third, the students had not been interviewed to find out the external and internal factors involved in this type of mobile learning. Therefore, generalizing the findings to all kinds of prompts and recasts can be problematic.

Stockwell (2008) discovered that the cost of mobile phones is essential, and it can lead to disappointment in academic settings. Based on Azli et al. (2018), MALL can be implemented inside and outside the classroom; in other words, it is formal and informal learning that can support traditional learning, boost the teaching process, and enhance learning. They also believed teachers could use MALL as an assistant in English teaching. It is worth mentioning that Dehkordi's (2018) study showed that male and female learners have positive attitudes and perceptions toward using technology-based learning. Some researchers noted that the use of mobile phones makes it easier for learners, teachers, and peers to communicate. This could be a great chance to improve their language skills (Nah et al., 2008; Rosell-Aguilar, 2007).

Concerning the advantages and disadvantages of the HelloTalk application, another research (Nugroho et al., 2018) provides information from students' perspectives in the following statements. There are some advantages of implementing HelloTalk in teaching vocabulary, described as easy to use, having various features, easy to remember vocabulary, time efficiency, and having an exciting learning experience. Finally, other research results have displayed that MALL increased language learning motivation (Kim et al., 2013) and promoted the development of collaboration and interaction (Goh et al.,2012). Moreover, smartphones provide a design plan for autonomous learning (Reinders, 2010), and they are inescapably a modern method of autonomous language learning (Clarke & Svanaes, 2015; Niño, 2015; Persson & Nouri, 2018).

All in all, the present study attempted to investigate how the HelloTalk application can improve Iranian EFL learners' autonomy. The researchers have raised the following research question to accomplish the purpose of this study:

How does the HelloTalk app impact Iranian intermediate EFL learners' autonomy from the pre-test to the post-test?

3. METHODS

In this section, the research design and setting are provided with detailed information at the beginning. Then, the research participants and instruments are carefully described as a significant and necessary part of the study. Finally, the data collection and analysis procedure are discussed to provide helpful information for the result section.

Design and context of the study

A quasi-experimental research design that is quantitative in nature was adopted in this research study, with two nonequivalent groups: Experimental Group Number One (EG1) and Experimental Group Number Two (EG2). In light of this, the quantitative part consisted of gathering data through the LAQ questionnaire given to Iranian Intermediate EFL learners to obtain the relevant information. It is worth mentioning that for collecting the data on autonomy, the current study aimed to investigate the characteristics of Iranian EFL learners enrolled in an institute in Isfahan, (in the Spring term of 2022). In addition, the homogeneity of each group was examined by participating in a Placement English Test (PET) at the Institute. Intermediate English learners were chosen for the study because of the course system used in the institute and their familiarity with the notion of being autonomous learners, which is related to their age and level of English proficiency. As Bardus et al. (2021) mentioned, age and English language proficiency level can somewhat influence the results.

EFL learners received 6 hours of instruction per week within the course period, including primary skills and sub-skills. The course books used in the institute were *Active Skills for Reading Level 2* and *Headway Academic Skills Level 2*. In this connection, extra materials such as grammar, vocabulary, and reading exercises were provided to students for every unit by the institution. It should be noted that all the course classes had to use standard materials and topics. Learners' achievement was measured basically through an online autonomy learner questionnaire on Google Docs to collect the data on autonomy. The learners were given a questionnaire; one in the first session and one at the end of the course (the LAQ questionnaire was given at the beginning and end of the course).

Participants

Strictly speaking, the participants were Undergraduate/Postgraduate learners enrolled in an institute in Isfahan, Iran, in the spring term of 2022. The average age of the whole number of participants was 24 years old. A panel of six education experts with a 9.5 average year of teaching English and research experience were asked to review the application, fill out a questionnaire, and provide written comments to add several points of view to the design (Chen et al., 2019). The experts had doctoral and M.A. degrees in a relevant education or language learning field. The participants and their demographic information are outlined in Table 1.

Table 1: Demographic Background of the Participants

Participants	Learners	Educational experts
Number of Participants	54	6
Level of Education	Undergraduate/Postgraduate learners	Doctoral degrees/M.A
Age	The average age of 24 years old	The average age of 34 years old
English Level	Intermediate	Education expert
Gender	20 males and 34 females	Two males and four females
Nationality	Iranian	Iranian
Native Language	Persian	Persian
Target Language	English	English

Instruments

The present paper used two instruments to collect the data: the Learner Autonomy Questionnaire (LAQ), and the HelloTalk Application. The first instrument used for both a pre-test and post-test to assess the extent of the learners' autonomy was the Learner Autonomy Questionnaire. There are 44 items in the form of nine dimensions that are related to language learning (see Appendix A). It is worth mentioning that the nine dimensions are categorized and illustrated in Table 2. The LAQ (Learner Autonomy Questionnaire) was chosen in this study for three reasons; the first one was its comprehensibility. Since LAQ was one of the most comprehensive questionnaires, it considered a great extent of different dimensions that were related to learner autonomy. The second reason was the content validity of the LAQ; this could be determined by comparing it to other questionnaires that were available in the area of learner autonomy. The final reason was that many researchers confirmed the questionnaire (Gholami, 2016; Gömleksiz & Bozpolat, 2012; Karagöl, 2008; Tilfarlioglu & Ciftci, 2011). According to Tilfarlioglu and Ciftci (2011), the original questionnaire has 40 items related to learner autonomy that were adapted from different resources, as mentioned above. While 30 of the items were adapted from Egel's questionnaire (2003), the rest of them were developed by examining different sources (Sancar, 2001; Koçak, 2003).

Gholami (2016) adjusted the LAQ to the Iranian context by piloting the test for learners and modifying or replacing some items. Moreover, to put appropriate items in the questionnaire, the other questionnaires that were used in the Iranian context were checked (Moini & Asadi Sajed, 2012; Hashemian & Soureshjani, 2011; Nematipour, 2012; Rahnama & Zafarghandi, 2013; Maftoon et al., 2011). In light of this, to improve LAQ or make it less extreme, partial or minor changes were used based on the aim of the study. With this framework, experienced professors of the Department of English of the Islamic Azad University, Isfahan (Khorasgan Branch), were asked to examine some items for modification or change. It is noteworthy that the LAQ questionnaire is categorized into nine dimensions, with dependent and independent questions (see Appendix A).

The comparison of the dimensions of the questionnaire can lead to a better understanding of measuring the construct of learners' autonomy. Due to the comprehensibility of the questionnaire and its crucial factors, which were categorized into nine dimensions and focused on ready for Self-direction, independent work in language learning, the importance of class/ teacher, the role of teacher, language learning activities outside the class, selecting content, intrinsic motivation, assessment, motivation, and finally interest in other cultures.

Table 2: Nine Dimensions in the Modified Learner Autonomy Questionnaire

Section	Number of Items	Focus	Questions
Dimension 1	6 items	Readiness for Self-direction	What are the learners' beliefs relating to self-directed learning in general?
Dimension 2	6 items	Independent Work in language learning	What are the learners' beliefs about independent work in language learning?
Dimension 3	8 items	Importance of Class/ Teacher	How important do learners see the class/ the teacher in their language learning?
Dimension 4	5 items	Role of Teacher: Explanation/Supervision	What importance do learners give to teacher explanation and supervision?
Dimension 5	4 items	Language Learning Activities Outside the Class	About particular language learning activities, what are the learners' attitudes?
Dimension 6	3 items	Selecting Content	What are the learners' attitudes relating to the selection of content for language learning?
Dimension 7	3 items	Intrinsic motivation	How confident do learners feel about defining objectives?
Dimension 8	5 items	Assessment/ Motivation	How important is external assessment in motivating the learners' work?
Dimension 9	4 items	Interest in Other Cultures	What are the learners' attitudes relating to the culture of other countries?

The second instrument used in the present study was the HelloTalk app. The HelloTalk app was used as a treatment of the study to enhance EG1 learners' autonomy. It should be noted that the treatment of the study refers to the whole process of using the HelloTalk app inside and outside the classroom for EG1 learners. The required application was HelloTalk in this research, which has free and VIP versions. HelloTalk is a popular language-learning app on the market; the team is based in Hong Kong and Shenzhen, China. This application covers almost all languages. The HelloTalk language exchange application aims to connect language learners to native speakers and facilitate language learning. The premium version should be downloaded to access many different options of the application without limitations.

Data Collection Procedure

At the beginning of the 8-week- course with 24 sessions, learners in EG1 (Experimental Group Number One) and EG2 (Experimental Group Number Two) were asked to answer the online learner autonomy questionnaire on Google Docs. In EG1, the learners were introduced to the HelloTalk application, viewed the user guidelines, and formed a chat group (during week 1). It should be noted that the HelloTalk application was introduced step by step on WhatsApp, as can be seen in Figure 2. In addition, the application was also shared with experts. In the next step (during week 2), different application options were introduced to EG1 learners: HelloTalk, Moments, Connect, Live, and Me. Some extra activities were designed for both EG1 (based on the usage of the HelloTalk application) and EG2 (based on the traditional teaching approaches) learners. EG1 learners were able to discuss their answers with the group in a chat room, and they also had the opportunity to have 20 minutes per week of discussion with the instructor in the application chat room.

In week 3, the social aspect of the HelloTalk application was described for EG1 learners, and they were supposed to choose some topics for online discussion with native speakers and their friends, but before that, they were asked to submit their topics to the instructor for feedback.
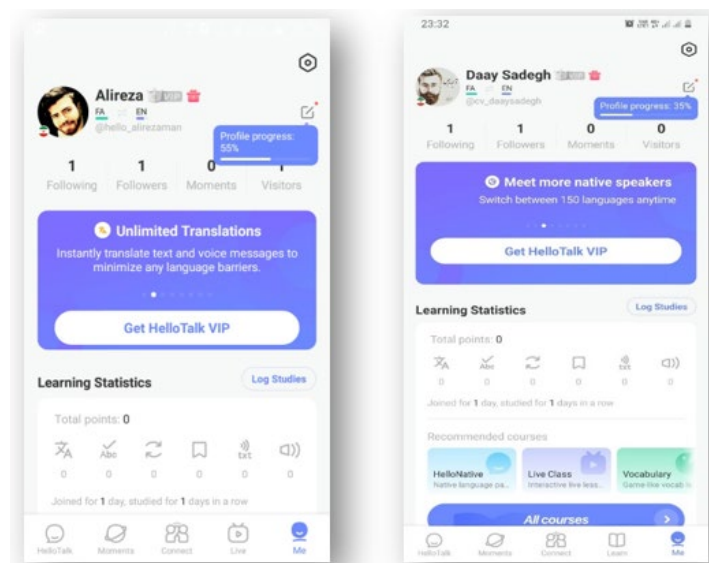
Figure 1: Installation of the HelloTalk Application by Participants of the Study
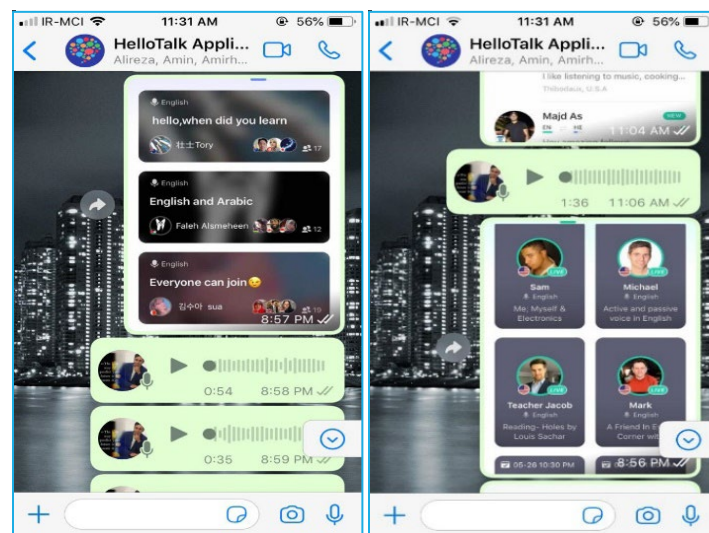
Figure 2: Introducing the HelloTalk Application on WhatsApp

During weeks 3 to 4, learners in EG1 were supposed to complete the study units in the application for 2-3 hours per week and answer the inside and outside of the class activities using the HelloTalk application. Moreover, learners had the opportunity to discuss online with the instructor. Over the next few weeks (during weeks 5 to 8), they were motivated to share and discuss the material in the chat room, where the instructor could encourage EG1 learners and provide structured comments. In week 6, the instructor tried to focus on the application's entertainment and gamification aspects to consider its fun and appealing aspects and introduce these particular parts of the application. Furthermore, the writing and grammar tools of the application were explained to EG1 learners because EG2 learners had some writing and grammar tasks or activities that the institution designed for each semester. Finally, in weeks 7 to 8, the participants completed a questionnaire. The research procedure is summarized in Figure 3.

Week 1
- Forming a exprimental group with 27 participants
- Introduction to HelloTalk app
- Orientation and training
- App shared with learners and experts

Week 2-4
- Introduction to HelloTalk, Moments, Connect, Live, and Me applications options
- Discuss answers with the group in a chat room
- 20 minute/week discussion with the instructor in a chat room

Week 3
- Introducing the Social aspect of the HelloTalk app
- Choosing topics for online discussion with native speakers and friends
- Submit the topic to the instructor for feedback

Week 4-5
- Complete the study units in the app for 2-3 hours/week
- Discussion and preparation for inside and outside of the class activities through the usage of the application
- Online discussion with the instructor

Week 6
- Focusing on entertainment and gamification aspects of the application
- Introducing writing and grammar tools

Week 7-8
- Questionnaire

Figure 3: Research Procedure

One also should not overlook that, to bring a visual aspect to the study, some participants were asked for permission to use their screenshots and personal information, as seen in Figures 1 and 2.

It is essential to highlight that the same conditions were provided for EG2 learners to achieve reliable results. In a parallel manner, at the beginning of the EG2 course, the syllabus and the aims of the course were explained (during week 1). During weeks 1 to 8, some external materials such as writing, speaking, reading, listening, and grammar activities were designed and shared by the institution. In this connection, EG2 learners were supposed to submit their homework, activities, and inside/outside class study units (in the form of oral or written forms). In addition, (during weeks 2-8), they had the opportunity to choose suitable topics for a 20-minute/week discussion in the class. It should be noted that the learners had to submit the topic to the instructor for feedback. Furthermore, they were asked to connect to native speakers and their friends through Instagram and WhatsApp in the classroom. Finally, the questionnaire was completed by the participants between weeks 7 and 8.

Data Analysis Procedure

After gathering sufficient data about the phenomenon under study, data analysis is necessary for organizing, summarizing, synthesizing, and shifting the collected data. The Paired Sample T-test was used in the study after counseling with an expert in the field of statistics. In another way, the study used a Paired Sample T-test to address the research question and compare the means of the control and experimental groups. Additionally, for analyzing LAQ questionnaires, IBM SPSS Statistics (Version 26) software was used for summarizing and categorizing the information.

4. RESULTS

This section analyzed the learner autonomy questionnaire to achieve the study goal. It must be noted that before any data analysis, reliability statistics should be examined. In doing so, Cronbach's alphas were provided in Table 3, which could illustrate the questionnaire's reliability. According to the information provided in Table 3, both questionnaires were reliable.

Table 3: Reliability statistics

Questionnaires	Cronbach's Alpha		Number of Items
	Pre-Test	**Post-Test**	
LAQ-EG2	.890	.850	9- Dimension
LAQ-EG1	.898	.912	9 -Dimension

During the first step of the procedure, the learners were asked to fill out the questionnaire, and they were ensured that all the ethical issues were observed in this study. The next step was to test the data collected through the LAQ questionnaire to determine whether the distribution of the data was normal or not. In light of this, the following Null Hypothesis had to be taken into consideration to analyze the collected data correctly:

H02: The distribution of the collected data is not Normal.

To examine the normality of the data, the Kolmogorov-Smirnov and Shapiro-Wilk tests were utilized. After using the tests, the results revealed that the data distribution was normal. For instance, those tests were used for Dimension 1 in Table 4. It is noteworthy that the data was collected from the EG1 learners.

Table 4: Kolmogorov-Smirnov and Shapiro-Wilk Tests for Dimension 1

	Kolmogorov-Smirnov			**Shapiro-Wilk**		
Dimensions	Statistic	df	Sig.	Statistic	df	Sig.
Dimension 1	0.153	27	0.100	0.949	27	0.206

The Statistical Significance/P-values (Sig) of the EG group was higher than .05 (that is, the alpha level), as indicated in the table above. In both tests, therefore, the distribution of the collected data was normal.

EG2 Learners' Autonomy Questionnaire Results

Subsequent steps included the results of the t-test analysis of the paired samples. As previously described, the LAQ questionnaire was used both for the pre-test and post-test. After collecting the data, they were categorized into some dimensions and analyzed through the Paired Sample T-test. Table 5 shows the pre-test and post-test results of the EG2 group with 27 participants.

As shown in Table 5, traditional teaching methods do not impact learners' autonomy significantly. Most dimensions do not affect learner autonomy, except dimensions one and three, in which the p-value is lower than .05

Table 5: Results of Paired Sample T-test of Experimental Group Number Two

Dimensions	Group	N	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
						Lower	Upper			
Dimension 1	EG2	27	0.253	0.321	0.061	0.125	0.380	4.090	26	0.000
Dimension 2	EG2	27	0.141	0.664	0.127	-0.120	0.404	1.110	26	0.277
Dimension 3	EG2	27	0.217	0.433	0.083	0.045	0.389	2.606	26	0.014
Dimension 4	EG2	27	0.007	0.886	0.170	-0.343	0.358	0.043	26	0.965
Dimension 5	EG2	27	-0.101	0.434	0.083	-0.273	0.070	-1.218	26	0.234
Dimension 6	EG2	27	-0.197	0.579	0.111	-0.426	0.031	-1.771	26	0.088
Dimension 7	EG2	27	-0.098	0.379	0.072	-0.248	0.051	-1.353	26	0.187
Dimension 8	EG2	27	-0.111	0.657	0.126	-0.371	0.148	-0.878	26	0.387
Dimension 9	EG2	27	0.092	0.710	0.136	-0.188	0.373	0.676	26	0.504

EG1 Learners' Autonomy Questionnaire Results

The following results of the collected data refer to the Paired Samples T-test of experimental group number one, which was the critical part of the study. According to the mean, Sig., and other information provided in the table, almost all dimensions affected learners' autonomy. It is worth pointing out that the p-value of most dimensions was lower than .05 (the alpha level); therefore, almost all dimensions impacted the learners' autonomy. Consequently, it was possible to conclude that the HelloTalk application significantly impacted Iranian intermediate EFL learners' autonomy. The only dimension that did not have significant changes was dimension four, which was related to the role of the teacher, which refers to the dependent questions of the LAQ questionnaire (In Appendix A, some questions are both dependent and independent in the LAQ questionnaire.).

As shown in Table 6, dimension four has five questions (which are questions numbers 9, 14, 15, 21, and 22. See Appendix A for more information). In addition, the questions focus on the explanation and supervision role of the teacher. The following figure could better illustrate the differences between the EG1 and EG2 groups' frequencies to provide a deeper understanding. Question number 4 is related to dimension one (Self-direction), and the question is (I want to talk in English with my family, friends, or native speakers) with five alternatives (See Appendix A). Although dimension 1 in EG2, t-test positively affected the learner's autonomy, the frequencies of answers in EG2 were lower compared with those of the EG1 group.

Table 6: Results of Paired Sample T-test of Experimental Group Number One

| Dimensions	Group	N	Pre-Test & Post-Test Means	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
							Lower	Upper			
Dimension 1	EG1	27	3.506 4.111	-0.604	0.460	0.088	-0.787	-0.422	-6.829	26	.000
Dimension 2	EG1	27	3.203 3.783	-0.580	0.803	0.154	-0.898	-0.262	-3.751	26	.001
Dimension 3	EG1	27	3.296 3.810	-0.513	0.521	0.100	-0.720	-0.307	-5.119	26	.000
Dimension 4	EG1	27	3.703 4.037	-0.333	0.971	0.187	-0.717	0.051	-1.782	26	.086
Dimension 5	EG1	27	3.203 3.777	-0.574	0.845	0.162	-0.908	-0.239	-3.526	26	.002
Dimension 6	EG1	27	3.604 4.172	-0.567	0.639	0.123	-0.820	-0.315	-4.616	26	.000
Dimension 7	EG1	27	3.259 3.691	-0.432	0.772	0.148	-0.737	-0.126	-2.906	26	.007
Dimension 8	EG1	27	3.548 3.903	-0.355	0.640	0.123	-0.608	-0.102	-2.884	26	.008
Dimension 9	EG1	27	3.518 3.907	-0.388	0.835	0.160	-0.719	-0.058	-2.417	26	.023
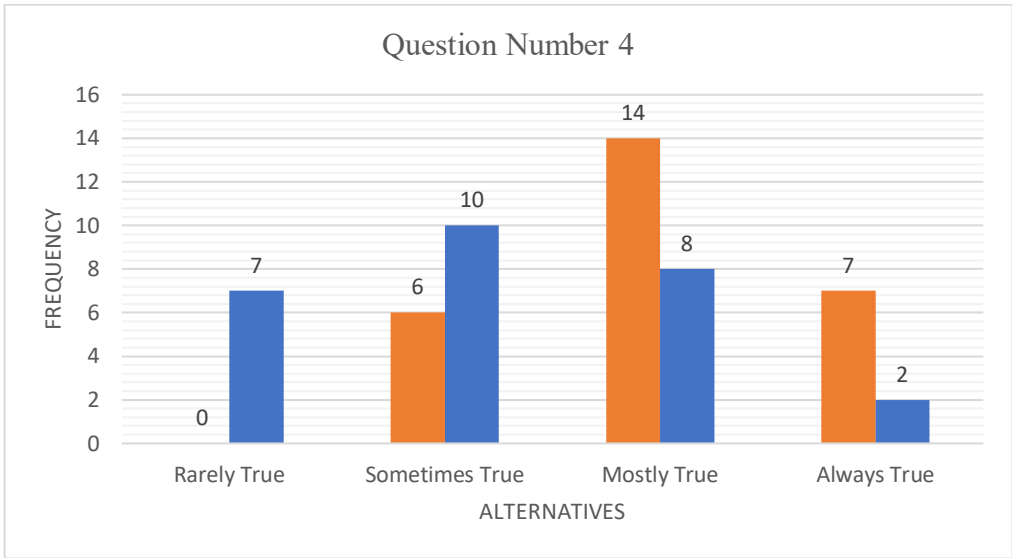
Figure 4: Comparison between EG1(Red) and EG2s' (Blue) Answers

After all, it is time to answer the research question and determine whether the conclusions of the present study are consistent with those of the others investigating the relationship of the study's variables. A quasi-experimental investigation was done to examine the research question, which was:

How does the HelloTalk app impact Iranian intermediate EFL learners' autonomy from the pre-test to the post-test?

The results revealed that by the usage of the HelloTalk educational app, almost all dimensions impacted the learners' autonomy. The only dimension that did not have significant changes in the learners' autonomy was dimension four, which was related to the role of the teacher. Dimension four showed that the learners were dependent on their teacher. Generally speaking, they wanted their teacher to explain lessons on the board, repeat grammatical structures, correct their errors, and give them all the needed learning materials.

Using the HelloTalk application improved the self-direction of the learners; thus, the concepts of autonomy and self-directed learning were closely connected. Based on Majedi and Pishkar (2016), through self-directed learning, learners are advanced in the direction of self-evaluation, self-study, and autonomy. In addition, in self-directed learning, learners are expected to take responsibility for their learning, arrange their learning purposes, recognize and fix learning gaps, choose and perform learning strategies, and assess their learning (Loyens et al., 2008).

According to dimension two, which refers to independent work in language learning, utilizing the HelloTalk application improved learners' autonomy. According to Wang (2010), technology has advanced independent learning through an English-language learning model that includes journals, news, magazine articles, letters, and articles on the Internet. It can also promote English language competence. The results of the present paper concerning the research question are in agreement with Bardus et al.'s (2021) finding, which is the use of mobile applications, in general, and the HelloTalk application, in particular, is not just a means of autonomous learning of a foreign language, but also an effective means of training learning in class.

Regarding other aspects pertaining to the significance of the class and teacher in fostering learners' independence, the results revealed that using the application improved learners' independence. In this connection, the present study had similar results as Dashtestani (2013); Iranian English teachers' attitudes toward using mobile phones in English language teaching and learning were beneficial. The study's results also align with Yudhiantara and Saehu's (2017) study, revealing that using smartphones in classroom activities led to positive student perception. It should be noted that this result refers to dimension five. The application's use could lead to an improvement in the autonomy of learners, as evidenced by the results, through the usage of motivation and encouragement. Pachler et al. (2012) mentioned that due to learners' attachment to their mobile phones, these devices are supposed to be a source of inspiration and motivation. Based on the National Council for Educational Technology (1967), the definition of educational technology encompasses methods, development, application, and assessment of the system that aids in improving the process of human learning. The results revealed that using educational technology, particularly the HelloTalk application, could be a good way of assessing the system both for learners in terms of self-assessment and for teachers in terms of learner assessment.

Based on the LAQ questionnaire results, which refer to the nine dimensions, fostering the behavior of social-interactive and experimental-participatory learners is necessary, as Schwienhorst (2003) claimed correctly. It is worth mentioning that teachers should be equipped and prepared with information, abilities, knowledge, and skills through experience or education to assist learners in using technological material within and outside the classroom to learn languages. As Lai et al. (2016) mentioned, mismatches in student and teacher perceptions could arise due to the extent of teacher involvement and their specific roles. Results from this study have shown that learners have positive attitudes toward using educational applications as a successful way to learn and train themselves to be autonomous both in and out of the classroom, which is in line with Zehani's (2021) results.

Consequently, one or two techniques are not enough to develop learner autonomy; a planned approach is necessary instead. By using the techniques and technologies, autonomy can be fostered, but not all dimensions can be developed. A multidimensional design is required to develop autonomy and all its aspects in the learners' learning process. The multidimensional design has the potential to affect the learner's proficiency, which is what many language teachers aim for.

5. CONCLUSIONS

This study attempted to investigate the contributory role of educational applications, particularly the HelloTalk application, in improving Iranian intermediate EFL learners' autonomy. The study subjects were divided into two groups with 27 participants. LAQ questionnaire was distributed online on Google Docs among the learners. In the next step, the Paired Sample T-test was used to examine leaders' autonomy improvements and compare EG1 and EG2 means. It was revealed that in most dimensions, the use of the HelloTalk application positively affected EG1 learners and improved EG1 learners' autonomy.

One of the implications of this study deals with online English courses in Iran. As suggested by this study, some courses could be presented online and in the form of virtual ones to prevent some problems of commuting for the learners and manage the time and place for these courses to be held. This study's findings and related literature validate that presenting courses in virtual forms has the potential to be used in educational areas. This study could impact learners with enough competence but who do not know how to be autonomous through mobile applications. It may benefit researchers keen to carry out a similar study in the future and give instructional technology planners guidance on how to utilize technology tools and computer programs or mobile applications such as HelloTalk to facilitate teaching and learning the English language.

The small number of participants was one of the study's limitations, which requires further investigation for any generalization. The credibility and reliability of the verbal or written responses to the instruments used in the present study were limited to the honesty of the experts and learners. Learners who are enrolled in institutions are usually involved at work; therefore, explaining and following the stages of a research study can be such a big deal in some cases with the absence of learners. Moreover, all students are not equipped with technology tools and multimedia, even in the technology era, so persuading them to be equipped was another problem. This research study was influenced by the quality of the Internet and the development of the ability to conduct classes in virtual conditions. The premium version of the HelloTalk application was a challenge due to financial issues.

Since this study was conducted on a group of Iranian intermediate-level EFL learners, more studies are also needed on different levels of EFL learners. In this study, the utilization of the HelloTalk application in improving learners' autonomy was under investigation; therefore, further research is needed to examine the effect of conducting virtual courses on the development of other language skills. As another suggestion for further research, it is recommended to review the project taking into account gender differences to achieve a better outcome in this case.

English teachers must participate actively in group cooperation to monitor progress and moderate suggestions when cooperation breaks down, and online cooperation training is essential. Many English learners need training, self-regulation training, and directions to foster their autonomous learning, although one of the goals of using educational applications is to improve learners' autonomy. To encourage learners and improve their skills for collaborative work, course instructors must design activities that incorporate educational applications into the learning process.

The HelloTalk application is a powerful means for second language teaching and learning if used as support for well-defined learning objectives. It reduces the problems of target language

practice, provides social aspects, offers communication with native speakers, improves language skills through practice and online courses, and enhances learners' autonomy. These are just a few application advantages that can facilitate English learning. Therefore, it is crystal clear that there is a tremendous shift toward using the HelloTalk application for educational purposes. Using technology materials in a classroom by a teacher leads to the learners' motivation improvement and enhances learners' ability to work independently, which needs to be investigated more, especially in Iran.

Last of all, from the authors' points of view, learners' trust and respect for their teacher may indicate infantilization (i.e., the more the learner acts or feels like an infant, the better he can acquire the target language). The institution and teacher encouraged learners to use the application, but it was not mandatory. As a result, some factors could have influenced the study's findings, which were unavoidable.

References

Ally, M. (2013). Mobile learning: From research to practice to impact education. *Learning and Teaching in Higher Education: Gulf Perspectives*, 10(2), 1-10.

Ataeifar, F., Sadighi, F., Bagheri, S. M., & Behjat, F. (2019). Iranian female students' perceptions of the impact of mobile-assisted instruction on their English-speaking skill. In S. Wang (Ed.), *Cogent Education*, 6(1). https://doi.org/10.1080/2331186X.2019.1662594

Azli, W. U. A. W., Shah, P. M., & Mohamad, M. (2018). Perception on the usage of mobile assisted language learning (MALL) in English as a second language (ESL) learning among vocational college students. *Creative Education*, 9(01), 84.

Bardus, I., Herasymenko, Y., Nalyvaiko, O., Rozumna, T., Vaseiko, Y., & Pozdniakova, V. (2021). Organization of foreign languages blended learning in COVID-19 conditions by means of mobile applications. *Revista Romaneasca pentru Educatie Multidimensionala*, 13(2), 268–287. https://doi.org/10.18662/rrem/13.2/421.

Barton, D., & Potts, D. (2013). Language learning online as a social practice. *TESOL Quarterly*, 47(4), 815–820.

Benson, P. (2001). *Autonomy in language teaching and learning*. Cambridge University Press.

Buchanan, R. (2011). Paradox, promise and public pedagogy: Implications of the federal government's digital education revolution. *Australian Journal of Teacher Education*, 36(2), 67–78. http://dx.doi.org/10.14221/ajte.2011v36n2.6

Chartrand, R. (2016). Advantages and disadvantages of using mobile devices in a university language classroom. *Bulletin of the Institute of Foreign Language Education Kurume University*, 2(3), 1–13. http://id.nii.ac.jp/0365/00000162

Chen, Y. W., Liu, G. Z., Lin, V., & Wang, H. Y. (2019). Needs analysis for an ESP case study developed for the context-aware ubiquitous learning environment. *Digital Scholarship in the Humanities*, 34(1), 124–145. https://doi.org/10.1093/llc/fqy019

Chwo, S. M. G., Marek, M. W., & Wu, W. C. V. (2018). Meta-analysis of MALL research and design. *System*, 7(4), 62–72. https://doi.org/10.1016/j.system.2018.02.009

Clarke, B., & Svanaes, S. (2015). Updated review of the global use of mobile technology in education. London. Retrieved from: http://www.kidsandyouth.com/pdf/T4SFK%26Y Literature Review, 11, 1-23.

Clement, J. (2020). Number of active apps from the Apple app store 2008–2020. *Statista*.

Dashtestani, R. (2013). Implementing mobile-assisted language learning (MALL) in an EFL Context: Iranian EFL teachers' perspectives on challenges and affordances. *Jalt CALL Journal*, 9(2), 149-168.

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Dehkordi, M. E. (2018). Iranian male and female EFL learners' perceptions toward the use of mobile assisted language learning. *Journal of Applied Linguistics and Language Research*, 5(3), 56–66.

Egel, İ. P. (2003). *The impact of the European language portfolio on the learner autonomy of Turkish primary school students* (Doctoral dissertation, Anadolu University (Turkey)).

Fagerlund, T. (2012). *Learning and using English and Swedish beyond the classroom: Activity systems of six upper secondary school students* (Unpublished master's thesis). University of Jyvaskyla, Finland.

Geddes, S. J. (2004). Mobile learning in the 21st century: benefit for learners. *Knowledge Tree e-Journal*, 30(3), 214–228.

Gamble, C., Aliponga, J., Wilkins, M., Koshiyama, Y., Yoshida, K., & Ando, S. (2012). Examining learner autonomy dimensions: Students' perceptions of their responsibility and ability. In A. Stewart, & N. Sonda (Eds.), *JALT 2011 Conference Proceedings* (pp. 263–272). JALT.

Gholami, H., & Biria, R. (2014). Reflective journal writing and learner autonomy. *Journal of Language and Literature*, 5–3/25, 253-260.

Gholami, H. (2016). Self-assessment and learner autonomy. *Theory and Practice in Language Studies*, 6(1), 46.

Goh, C. H., Heng, P. W. S., & Chan, L. W. (2012). Alginates as a useful natural polymer for microencapsulation and therapeutic applications. *Carbohydrate Polymers*, 88(1), 1–12.

Gömleksiz, M. N., & Bozpolat, E. (2012). Learner autonomy in foreign language learning in elementary school. *Zeitschrift Für Die Welt Der Türken*, 4, 95–114.

Grimshaw, J., Cardoso, W., & Collins, L. (2017). Teacher perspectives on the integration of mobile-assisted language learning. In K. Borthwick, L. Bradley & S. Thousand (Eds), *CALL in a Climate of Change: Adapting to Turbulent Global Conditions* (pp. 135–139). EUROCALL. https://doi.org/10.14705/rpnet.2017.eurocall2017.702

Hadi, K. (2012). *Promoting learner autonomy in an EFL Context: Learners' readiness and teachers' roles* (Unpublished master's thesis). AbouBekrBelkaid, University Tlemcen. Retrieved from: http://dspace.univ-tlemcen.dz/bitstream/112/2476/1/Kheira-HADI.pdf

Hafner, C., Chik, A., Jones, R. (2013). Engaging with digital literacies in TESOL. *TESOL Quarterly*, 47(4), 812–815.

Hagger, M. S., & Chatzisarantis, N. L. D. (2012). Transferring motivation from educational to extramural contexts: A review of the trans-contextual model. *European Journal of Psychology and Education*, 2(7), 1952012. https://doi.org/10.1007/s10212-011-0082-5

Hashemian, M., & Soureshjani, K. H. (2011). The interrelationship of autonomy, motivation, and academic performance of Persian L2 learners in distance education contexts. *Theory and Practice in Language Studies*, 1(4), 319–326.

Holec, H. (1981). *Autonomy and foreign language learning*. Pergamon.

Inozu, J., Sahinkarakas, S., & Yumru, H. (2010). The nature of language learning experiences beyond the classroom and its learning outcomes. *US-China Foreign Language*, 8, 14–21.

Karagöl, D. (2008). *Promoting learner autonomy to increase the intrinsic motivation of the young language learners* (Unpublished master's thesis). Çukurova University, Adana.

Kim, D., Rueckert, D., Kim, D.-J., & Seo, D. (2013). Students' perceptions and experiences of mobile learning. *Language Learning & Technology*, 17(3), 52–73.

Koçak, A. (2003). *A study on learners' readiness for autonomous learning of English as a foreign language* (Doctoral dissertation). METU.

Kondo, L. (2012). The pedagogical use of mobile speech synthesis (TTS): focus on French liaison. *Computer Assisted Language Learning*, 30(3), 1–18. https://doi.org/10.1080/09588221.2017.1312463

Kukulska-Hulme, A., & Traxler, J. (2005). *Mobile learning: A handbook for educators and trainers*. Routledge.

Lai, C., & Gu, M. Y. (2011). Self-regulated out-of-class language learning with technology. *Computer Assisted Language Learning*, 24(4), 317-335.

Lai, C. (2014a). Perceiving and traversing in-class and out-of-class learning: Accounts from foreign language learners in Hong Kong. *Innovation in Language Learning and Teaching*. Advance online publication. https://doi.org/10.1080/17501229.2014.918982

Lai, C. (2014b). Modeling teacher's influence on learners' self-directed use of technology for language learning outside the classroom. *Computers & Education*, 8(2), 74-83.

Lai, C., Yeung, Y., & Hu, J. (2016). University student and teacher perceptions of teacher roles in promoting autonomous language learning with technology outside the classroom. *Computer Assisted Language Learning*, 29(4), 703-723.

Larsen-Freeman, D. (2000). *Techniques and principles in language teaching*. Oxford University Press.

Liakin, D., Cardoso, W., & Liakina, N. (2015). Learning L2 pronunciation with a mobile speech recognizer: French /y/. *Calico Journal*, 32(1), 1-25.

Liakin, D., Cardoso, W., & Liakina, N. (2017). The pedagogical use of mobile speech synthesis (TTS): Focus on French liaison. *Computer Assisted Language Learning*, 30(3-4), 325-342.

Lin, C. C., Barrett, N. E., & Liu, G. Z. (2021). English outside the academic sphere: A mobile-based context-aware comparison study on collaborative and individual learning. *Journal of Computer Assisted Learning*, 37(3), 657-671.

Liu, G. Z., Lu, H. C., & Lai, C. T. (2016). Towards the construction of a field: The developments and implications of mobile assisted language learning (MALL). *Digital Scholarship in the Humanities*, 31(1), 164–180. https://doi.org/10.1093/llc/fqu070

Liu, G. Z., Chen, J. Y., & Hwang, G. J. (2018). Mobile-based collaborative learning in the fitness center: A case study on the development of English listening comprehension with a context-aware application. *British Journal of Educational Technology*, 49(2), 305–320. https://doi.org/10.1111/bjet.12581

Loyens, S. M., Magda, J., & Rikers, R. M. (2008). Self-directed learning in problem-based learning and its relationships with self-regulated learning. *Educational Psychology Review*, 20, 411-427.

Maftoon, P., Daftarifard, P., & Lavasani, M. (2011). Good language learner: from autonomy perspective. *LiBRI. Linguistic and Literary Broad Research and Innovation*, 2(1), 104-114.

Majedi, N., & Pishkar, K. (2016). The effect of self-directed learning on Iranian intermediate EFL learners' speaking accuracy. *Journal of Applied Linguistics and Language Research*, 3(2), 86-95.

Moini, M. R. & Asadi Sajed, M (2012). Learner autonomy or teacher authority. *The First Conference on Language Learning & Teaching: An Interdisciplinary Approach*. Retrieved from: http://confbank.um.ac.ir/modules/conf_display/conferences/llt/cd38.pdf (pp. 30 – 31)

Nah, K., C., White, P., & Sussex, R. (2008). The potential of using a mobile phone to access the Internet for learning EFL listening skills within a Korean context. *ReCALL*, 20(3), 331-347.

Nematipour, M. (2012). A study of Iranian EFL learners' autonomy level and its relationship with learning style. *English Linguistics Research*, 1(1), 126-136.

Niño, A. (2015). Language Learners Perceptions and Experiences on the Use of Mobile Applications for Independent Language Learning in Higher Education. *IAFOR Journal of Education*, 73-84.

Nugroho, S. B., Nafasya, D. F., Nurshanya, N., & Awaliyah, H. S. (2021). The implementation of HelloTalk application in teaching vocabulary to young learners. *Proceedings International Conference on Education of Suryakancana*, Suryakancana University.

Nushi, M., & Eqbali, M. H. (2018). 50 languages: A mobile language learning application (App review). *Teaching English with Technology*, 18(1), 93-104.

O'Malley, C., Vavoula, G., Glew, J. P., Taylor, J., & Sharples, M. (2005). Guidelines for learning/teaching/ tutoring in a mobile environment. Retrieved from http://www.mobilearn.org/download/results/public_deliverables/MOBIlearn_D4.1_Final.pdf

Oz, H. (2015). An investigation of preservice English teachers' perceptions of mobile assisted language learning. *English Language Teaching*, 8(2), 22–34. https://doi.org/10.5539/elt.v8n2p22.

Pacheco, E., Lips, M., & Yoong, P. (2018). Transition 2.0: Digital technologies, higher education, and vision impairment. *The Internet and Higher Education*, 3(7), 1-10.

Pachler, N., Ranieri, M., Manca, S., & Cook, J. (2012). Social Networking and Mobile Learning. *British Journal of Educational Technology*, 43(5), 707-710.

Palaiologou, I. (2016). Children under five and digital technologies: implications for early years pedagogy. *European Early Childhood Education Research Journal*, 24(1), 5-24.

Pendlebury, T. (2018). All the 2018 education apps Apple announced. Cnet.com. Retrieved from: https://www.cnet.com/pictures/all-the-2018-education-apps-apple-announced/.

Persson, V., & Nouri, J. (2018). A systematic review of second language learning with mobile technologies. *International Journal of Emerging Technologies in Learning*, 13(2). https://doi.org/10.3391/ijet.v13i02.8094.

Qi, S. J., & Li, Q. (2006). A survey on English majors attitudes towards learner autonomy. *CELEA Journal*, 29, 66-74.

Rahnama, F. K., & Zafarghandi, A. M. (2013). Teachers' instructional behaviors and students' self-determination. *IJALEL*, 2(3), 100-111.

Reinders H. (2010). Twenty ideas for using mobile phones in the language classroom. *English Language Teaching Forum*, 46(3), 20-33.

Rosell-Aguilar, F. (2007). Top of the pods-in search of a podcasting "podagogy" for language learning. *Computer Assisted Language Learning*, 20(5), 471-492.

Sancar, I. (2001). *Learner autonomy: A profile of teacher trainees in pre-service teacher education* (Master's thesis). Uludağ Üniversitesi.

Schwienhorst, K. (2003) Learner autonomy and tandem learning: Putting principles into practice in synchronous and asynchronous telecommunications environments. *Computer Assisted Language Learning*, 16(5), 427-443. http://doi.org/10.1076/call.16.5.427.29484.

Stockwell, G. (2008). Investigating learner preparedness for and usage patterns of mobile learning. *ReCALL*, 20(3), 253-270.

Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. *Language Learning & Technology*, 14(2), 95-110. https://doi.org/10125/44216

Sutrisna, I. P. E., Ratminingsih, N. M., & Artini, L. P. (2018). Mall-based English instruction. *JPI (Jurnal Pendidikan Indonesia)*, 7(1), 30-40.

Swaine, L. (2020). *Ethical autonomy: The rise of self-rule*. Oxford University Press.

Tilfarlioglu, F. Y., & Ciftci, F. S. (2011). Supporting self-efficacy and learner autonomy in relation to academic success in EFL classrooms (A Case Study). *Theory & Practice in Language Studies*, 1(10), 1284-1294.

Valdimarsson, M. S. (2020). *English language learning Apps: A review of 11 English language learning apps* [Master's thesis]. University of Iceland.

Wagner, M. N. L., Donskaya, M. V., Kupriyanova, M. E., & Ovezova, U. A. (2016). Perspectives of introduction of the mobile-assisted language learning (Mall) technology. *International Journal of Environmental and Science Education*, 11(15), 8562–8571.

Wang, J. (2010). How to develop college students' autonomous English learning skills-take reading course in joint-program in HCFT as an example. *English Language Teaching*, 3(3), 221-228. https://doi.org/10.5539/elt.v3n3p221.

Weis, T. M., Benmayor, R., O'Leary, C., & Eynon, B. (2002). Digital technologies and pedagogies. *Social Justice*, 29(4), 153-167. https://eric.ed.gov/?id=EJ667330.

White, L. (2003). *Second language acquisition and universal grammar*. Cambridge University Press.

Yudhiantara, R. A., & Saehu, A. (2017). Mobile-assisted language learning (MALL) in Indonesian Islamic higher education. *IJELTAL (Indonesian Journal of English Language Teaching and Applied Linguistics)*, 2(1), 21-31. https://doi.org/10.21093/ijeltal.v2i1.52

Zehani, H. (2021). *The role of using instructional mobile applications in improving learner's autonomy in English language* [Master's thesis]. Kheider University of Biskra.

Zhernovnykova, O. A., Peretiaha, L. Y., Kovtun, A. V., Korduban, M. V., Nalyvaiko, O. O., & Nalyvaiko, N. A. (2020). The technology of prospective teachers' digital competence formation by means of gamification. *Information Technologies and Learning Tools*, 75(1), 170-185.

APPENDICES

Appendix A: Learner Autonomy Questionnaire

I hereby declare that I voluntarily participated in this study. I let the researchers use my responses as data as far as my identity remains anonymous. In addition, the researchers guarantee that all information I provide for this study will be treated confidentially.

Name: ……………………... Time of the Class: ………………. Age: ……………………….

Educational background: ……………… English Experience (year): ………………………

Direction: Please check the closest answer to the following questions according to your actual cases. Thank you very much for your help and patience.

5= Always True
4= Mostly True
3= Sometimes True
2= Rarely True
1= Never True

Qs	LEARNER AUTONOMY QUESTIONNAIRE	1	2	3	4	5
1	I usually set my own goal for each semester. (Independent Question-Dimension 1)	1	2	3	4	5
2	I use other English books, mobile applications, and resources of my own will. (Independent Question-Dimension 2)	1	2	3	4	5
3	When I hear someone talking in English, I listen very carefully. (Independent Question-Dimension 1)	1	2	3	4	5
4	I want to talk in English with my family, friends, or native speakers. (Independent Question-Dimension 1)	1	2	3	4	5
5	I enjoy learning grammatical points on my own. (Independent Question-Dimension 2)	1	2	3	4	5
6	While learning English, I like activities in which I can learn on my own. (Independent Question-Dimension 2)	1	2	3	4	5
7	I like trying new things while I am learning English. (Independent Question-Dimension 2)	1	2	3	4	5
8	I am afraid that I won't learn a topic if the teacher doesn't explain it in the English class. (Dependent Question-Dimension 3)	1	2	3	4	5
9	I learn better when the teacher explains something on the board. (Dependent Question-Dimension 4)	1	2	3	4	5
10	I use my own methods to learn vocabulary in English. (Independent Question-Dimension 2)	1	2	3	4	5
11	I feel confident when the teacher is beside me while learning English. (Dependent Question-Dimension 3)	1	2	3	4	5
12	I can learn English only with the help of my teacher. (Dependent Question-Dimension 3)	1	2	3	4	5
13	My teacher always has to guide me in learning English. (Dependent Question-Dimension 3)	1	2	3	4	5
14	While learning English, I would like my teacher to repeat grammatical rules. (Dependent Question-Dimension 4)	1	2	3	4	5
15	I feel happy when my teacher explains every detail of English. (Dependent Question-Dimension 4)	1	2	3	4	5
16	In the future, I would like to continue learning English on my own/without a teacher. (Independent Question-Dimension 1)	1	2	3	4	5
17	I like projects where I can work with other students in the English lesson. (Independent Question-Dimension 5)	1	2	3	4	5
18	I can learn English grammar on my own/ without needing a teacher. (Independent Question-Dimension 3)	1	2	3	4	5
19	If I cannot learn English in the classroom, I can learn working on my own. (Independent Question-Dimension 3)	1	2	3	4	5

Qs	LEARNER AUTONOMY QUESTIONNAIRE	1	2	3	4	5
20	I like learning English words by looking them up in a dictionary or using mobile applications. (Independent Question-Dimension 2)	1	2	3	4	5
21	I like my teacher to correct my errors when I make a mistake. (Dependent Question-Dimension 4)	1	2	3	4	5
22	I want the teacher to give us the words that we are to learn. (Dependent Question-Dimension 4)	1	2	3	4	5
23	I would like to use cassettes, videos, CDs, and mobile applications to learn a foreign language outside of the classroom. (Independent Question-Dimension 5)	1	2	3	4	5
24	I like to listen and read in English outside of the classroom. (Independent Question-Dimension 5)	1	2	3	4	5
25	I would like to select the materials for my foreign language lessons. (Independent Question-Dimension 6)	1	2	3	4	5
26	I would like to share the responsibility of deciding what to do in the English lesson. (Independent Question-Dimension 6)	1	2	3	4	5
27	I know how I can learn English the best. (Independent Question-Dimension 3)	1	2	3	4	5
28	If I haven't learned something in my English lesson, I am responsible for it. (Independent Question-Dimension 1)	1	2	3	4	5
29	I would like to choose the content of what is to be taught in the English lesson. (Independent Question-Dimension 6)	1	2	3	4	5
30	The teacher should give me regular tests or mobile applications so that I can measure my English language proficiency. (Dependent Question-Dimension 8)	1	2	3	4	5
31	I like English because I like to speak English. (Independent Question-Dimension 7)	1	2	3	4	5
32	I know my weaknesses and go for them. (Independent Question-Dimension 1)	1	2	3	4	5
33	I believe that I will reach a good level in the English language. (Independent Question-Dimension 7)	1	2	3	4	5
34	Every time I have an assignment, the teacher should score or correct it. (Dependent Question-Dimension 8)	1	2	3	4	5
35	I think that I learn English better when I work on my own. (Independent Question-Dimension 2)	1	2	3	4	5
36	My language learning success depends on what I do in the classroom. (Independent Question-Dimension 3)	1	2	3	4	5
37	I find it more helpful to work with my friends than to work on my own for the English lesson. (Independent Question-Dimension 5)	1	2	3	4	5
38	I do the English lesson activities only when my teacher is going to grade me. (Dependent Question-Dimension 8)	1	2	3	4	5
39	I have my own ways of testing how much I have learned. (Independent Question-Dimension 8)	1	2	3	4	5
40	I can be a fluent English speaker in the future. (Dependent Question-Dimension 7)	1	2	3	4	5
41	I try to understand the jokes and riddles of the foreign language. (Independent Question-Dimension 9)	1	2	3	4	5
42	I also investigate the culture of the foreign language I am learning. (Independent Question-Dimension 9)	1	2	3	4	5
43	I also investigate the idioms and sayings of the foreign language I am learning. (Independent Question-Dimension 9)	1	2	3	4	5
44	I ask people who have lived abroad about the lifestyles of the people living there. (Independent Question-Dimension 9)	1	2	3	4	5

Appendix B: Online Consent Forms

LEARNER AUTONOMY QUESTIONNAIRE

Direction: Please check the closest answer to the following questions according to your actual cases. Thank you very much for your help and patience.

* Required

I hereby declare that I voluntarily participated in this study. I let the researchers use my responses as data as far as my identity remains anonymous. In addition, the researchers guarantee that all information I provide for this study will be treated confidentially. *

○ Agree

○ Disagree

Improving EFL Learners' Argumentative Writing through Critical Thinking Disposition: Focus on Gender-Related Differences

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Abstract

Critical thinking disposition, as an important feature of the critical thinking concept, is considered as the active representation of critical thinking skills. This study investigated the contribution of gender and critical thinking disposition (CTD) on improving Iranian EFL learners' argumentative writing development. The participants were 150 intermediate EFL learners in five groups ranging from 20 to 30 years of age who were equally divided into three experimental (EGs) and two control groups (CGs); one group was only males (CG1), and the other only females (CG2). Participants took two TOEFL writing exams before and after the treatment sessions, followed by a CCTDI questionnaire before and after treatment sessions. The researchers taught both the experimental and control groups. Attempts were made to determine whether there were any gender differences at work while the EFL learners in the EGS were exposed to the treatment and the CGs received conventional instruction. The findings indicated no notable variation in writing scores based on gender-related distinctions among the participants in this research (17.84 vs. 18.43), but gender did play a role in the critical thinking disposition scores of the learners in which male learners significantly outperformed female learners in the CCTDI, and there was a statistically significant difference in CCTDI scores was observed, which indicated a statistical significance among groups: males (M = 355.22, SD = 13.66) and females (M = 325.94, SD = 16.92). The findings provide further evidence for the effectiveness of the role of gender in Iranian EFL learners' critical thinking disposition.

1. INTRODUCTION

Despite the extensive efforts and investment in foreign language education in Iran, it is disheartening to note that students continue to face challenges in developing their language learning skills. The root of this problem, as previously highlighted by Schafersman (1991), appears to lie within the educational system itself. Teachers, still influenced by traditional teaching approaches, prioritize instructing students on 'what to think' rather than fostering effective critical

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thinking skills. Consequently, students predominantly acquire lower-level learning abilities such as associative and rote memorization. This approach leads to misunderstandings, biases, and demotivation, as students rely on short-term memorization techniques for performance (Paul & Binker, 1990). These techniques significantly hinder students' ability to engage in meaningful and reflective learning experiences (Fahim & Ahmadian, 2012).

The concept 'gender' is now incredibly popular and constantly evolving in the English language. It pops up everywhere, and its meanings are always changing, which can be surprising. We discuss gender roles, worry about the gender gap, and question whether our ideas are biased or specific to a certain gender. To learn more about these topics, we can explore the expanding gender studies section at our local bookstore. However, the abundance of these new terms can be confusing, especially when they seem to contradict each other. For example, 'gender role' implies a constraint or limitation, like a role we have to fulfill, while 'gender-bending' suggests breaking free from those roles through parody or embracing ambiguity. What was once considered fixed now becomes flexible, an opportunity to play with style and challenge societal expectations.

Developing argumentative writing skills among EFL students and the impact of critical thinking and gender-related differences in this process is a key objective in the Iranian EFL instructional context (Fahim & Eslamdoost, 2014). Argumentative writing is considered an advanced form of critical thinking and brainstorming, requiring a combination of skills that gender differences and cooperative learning may influence. The ability to write proficiently necessitates cultivating advanced thinking and reasoning skills. Freeley and Steinberg (2013) emphasized the importance of conversations, debates, and problem-solving activities to foster critical thinking in students. However, only a small amount of research has been carried out in the Iranian EFL context to probe the impact of using critical thinking and gender roles to enhance argumentative essay writing among Iranian EFL learners. Traditionally, Iranian EFL contexts have focused their attention on developing language skills, with little attention given to critical thinking, gender differences, and learner autonomy.

Khorasani and Farimani (2010) noted that conventional teaching methods are still prevalent in Iran, with learners perceiving teachers as sources of knowledge and teachers viewing students as passive recipients of knowledge. Moreover, instructional materials often lack content related to critical thinking and gender differences as educational objectives. This narrow focus overlooks the essential aim of language teaching, which is to cultivate critical thinking and effective communication skills. Consequently, despite achieving high test scores, graduates may struggle to become effective instructors as they lack the necessary critical thinking abilities. Active learner involvement in the learning process allows them to directly meet the advantages and disadvantages of their instructional contents, making them certain that EFL contexts become more than just trial-and-error environments.

Critical thinking disposition is an integral aspect of thinking critically. It serves as an active representation of CT skills and their related abilities. Without the presence of CTD, the mastery of CT in practical applications becomes unattainable. Sadly, most scholars have focused their studies on CT skills rather than CTD, mainly due to the lack of reliable measurement scales for CTD. Even though there are a few studies on CTD, there is a paucity of research on the relationship between CTD components and how gender influences the improvement of argumentative writing skills. Therefore, it is crucial to study the impact of gender on CTD. EFL teachers need to investigate whether gender differences exist in CTD or not in order to enhance the EFL students' argumentative writing skill.

Argumentative writing is considered a challenging subject for foreign language learners to master. Second language learners must invest significant effort in comprehending the most critical components of argumentative writing, including hooks, blueprints, supporting phrases, and

conclusions. EFL/ESL students must use a variety of different writing methods in order to write correctly. Previous research conducted in Iran indicated that Iranian EFL learners have significant difficulties in comprehending and applying English writing abilities (Rezaei & Jafari, 2014).

Hashemi and Zabihi (2012) in their study concentrated on Iran's educational system. They stated that under such an educational system, learners' minds are seen as a repository of knowledge and information rather than a space for creativity and thought. They criticized the system in this regard. Thus, the findings indicated that critical thinking instruction for Iranian EFL students is required and should be examined.

2. LITERATURE REVIEW

The scientific origins of critical thinking are traced back to the tutoring traditions and beliefs of Socrates, a philosopher (c.470–399 BC) identified by the approach of specific examining that humankind could not wisely advocate his self-reliant statements to their knowledge. Socrates asserted that people cannot rely on those in their jurisdiction to have reliable knowledge and wisdom. He emphasized the significance of probing logical inquiry that led to rational reasoning before accepting ideas as trustworthy and reliable. Socrates employed a dialogic approach with his learners in order to encourage them to have deep contemplation. His objective was to develop the skill of assessing ideas, unbiased judgment, and speculation. The act of seeking evidence, evaluating reasons, examining core concepts, and exploring the practical implications of people's actions and words held great importance for Socrates (Rashtchi & Khoshnevisan, 2020).

Critical Thinking in the Iranian EFL Context

In recent years, several works have studied different dimensions of thinking critically and its applicability in English as a Foreign Language (EFL) classrooms. The subsequent section presents a comprehensive overview of articles investigating the Iranian EFL context throughout the country. The primary objectives of these articles were to examine the connection between critical thinking and other related concepts, as well as to determine the potential effect of teaching critical skills on students' language proficiency.

Amirian et al. (2023) conducted a study to examine the significant impact of critical thinking (CT), positive and practical beliefs, and instructing preferred styles on the success of professors and, as a result, the educational system's success. The findings revealed that CT proficiency and having positive and practical beliefs of teachers directly affect their teaching style preferences. Additionally, according to the findings of the study, the CT skills of Iranian EFL university professors have a positive impact on their sense of efficacy beliefs.

Hoorijani and Heidari Tabrizi (2023) studied the impact of critical thinking dispositional features and action learning on Iranian EFL learners' argumentative writing skill. They concluded that (a) synthesizing critical thinking dispositional features and action learning approach had a direct and positive influence on enhancing Iranian EFL learners' argumentative composition and essay, and (b) there was an expressive disparity between the argumentative writing development of the learners exposed to the synthesis of critical thinking dispositional features and action learning approach with the ones who experienced conventional instruction.

In their study, Eghbali et al. (2023) examined the attributes of the free-to-express-the-ideas type of classroom and its association with Iranian higher education classrooms. The findings from the comparison between Iranian higher education classrooms and those possessing emancipatory qualities revealed a lack of correlation between these attributes. Specifically, Iranian higher education classrooms were found to be characterized by a lack of participation and an authoritative approach, with instructors displaying reluctance to engage with learners. Additionally, learners reported a lack of exposure to emancipatory education, while the syllabus was observed to be

focused on memorization and quantitative assessments. Furthermore, the classroom environment was described as non-motivational and hierarchical, characterized by one-way teaching.

Hoorijani and Heidari Tabrizi (in-press) in their study systematically reviewed the critical thinking dispositional studies in the Iranian EFL context and based on their review and findings, they tried to present a comprehensive framework of these conducted studies in the Iranian EFL context and filled the research gaps by introducing and suggesting new critical thinking-related topics. Additionally, Hoorijani et al. (2022) conducted research to explore the perspective of EFL teachers and learners on the impact of critical thinking disposition on improving EFL learners' argumentative writing. The results of their study indicated that both EFL professors and students have practical perspectives toward English language teaching and learning. However, they also revealed that possessing a positive attitude towards a foreign language did not necessarily lead to improvement in English proficiency.

In their study, Abdar and Shafaei (2022) found a direct connection between thinking and certain sub-domains of teaching approaches. They concluded that various factors, including teacher characteristics such as reflective thinking and teaching styles, can influence the process of language teaching. They recommended that the interplay between these factors holds promise, as enhancing one factor can lead to improvements in the other. Additionally, the results indicate that teaching styles characterized by flexibility, adaptability, student-centeredness, sensitivity, and a straightforward approach are associated with higher levels of reflective thinking.

Ravandpour (2022) Studied the relationship between Iranian EFL learners' flipped learning readiness and their learning engagement, critical thinking, and autonomy. The findings of her study revealed that flipped learning readiness correlated positively and significantly with three variables: learning engagement, critical thinking, and autonomy. In addition, based on the results, flipped learning is a positive significant predictor of critical thinking, learning engagement, and autonomy. Moreover, engagement is positively predicted by both critical thinking and autonomy.

Zare et al. (2021) conducted a study to investigate the impact of critical thinking-oriented dynamic assessment (CT-DA) on the reading comprehension performance of Iranian language learners. The findings of their study indicated that both the CT-DA and DA groups performed better than those in the control group in terms of reading achievement. This suggests that the mediation provided through dynamic assessment procedures effectively enhanced the learners' reading performance. Furthermore, the results of critical thinking-oriented dynamic assessment and dynamic assessment did not show a statistically significant difference, which indicated that both types of mediation had a similar impact on the learners' reading achievement.

Critical Thinking as a Cognition Approach

Strategies based on a knowledge of how the mind works can assist in reducing cognitive load and, as a result, make writing easier (Mayer, 2002). The introduction of new technologies into education results in the development of novel models of teaching and learning in an interactive and engaging learning environment. From a methodological point of view, critical thinking can be viewed as a manifestation of innovative culture, which has the potential to achieve competitive advantages across the educational spectrum, particularly in an EFL context (Plachkov, 2013).

The pertinent literature provides a foundation for understanding the key aspects related to the research questions and the affective factors of the present study. A thorough examination of the reviewed literature demonstrates the significance of possessing critical dispositional features in the EFL context, as well as its impact on the development of writing among EFL learners. Additionally, the literature highlights the influence of gender differences in this context. Unfortunately, to date, limited research has investigated the concept of critical thinking dispositional features and gender-related differences in improving EFL learners' argumentative

writing among Iranian EFL learners. The present research study, as a part of a larger research project, was an attempt to address this gap in the literature. Accordingly, the objectives of this study were twofold:

The first objective of the present study focused its attention on the argumentative writing development of Iranian EFL learners from a gender-based view, so the researcher tried to investigate the concept of whether males and females are different from each other regarding their argumentative writing skill improvement or not. The second objective of the present study was to investigate the concept of critical thinking disposition again from gender-based differences to see which gender outperformed the other in their critical thinking disposition improvements in their writing course and develop future strategies for improving the intermediate EFL learners toward having a critical thinking disposition in their studies as well as their argumentative writing skill.

Hoorijani and Heidari Tabrizi (in-press), in their study, proved the positive role of critical thinking disposition on Iranian EFL learners' argumentative writing skill, thus based on the findings of the above-mentioned study, they tried to investigate these improvements from a gender-based view; in other words, they investigated whether there was any significant difference between male and female Iranian EFL learners receiving the treatment and whether having a critical thinking disposition was related to gender-based differences; therefore, based on the findings of the above-mentioned studies, this research specifically addressed the following research questions:

RSQ1: Does gender-based differences have any significant effect on the improvement of EFL learners' argumentative writing skill through synthesizing a critical thinking disposition and action learning approach?

RSQ2: Do male and female Iranian EFL learners show any significant difference considering critical thinking dispositional features improvements in their writing course or not?

3. METHOD

This section provides a thorough explanation of the study's design and context, the participants involved, the instruments used, the procedure for collecting data, and the procedure for analyzing the data.

Design and Context of the Study

This study utilized a quasi-experimental control/experimental group pretest/posttest design in order to fulfill its objectives. The study consisted of two groups: an experimental group and a control group. The independent variable examined critical thinking disposition and gender differences, while the dependent variable focused on the development of argumentative writing in the learning environment. The study was conducted at the Islamic Azad University, Kurdistan Branch.

Participants

The study involved participants who were undergraduate EFL learners from five intact classes in Iran. Of a total of 400 EFL learners, 150 were selected based on their performance on the Oxford Placement Test (OPT). These 150 learners were then randomly divided into five groups: two control groups (consisting of 73 learners) and three experimental groups (consisting of 77 learners). The age range of the participants was between 20 and 30 years old, with 108 females and 42 males. All participants were Iranian and had language learning experience limited to secondary and tertiary education. A summary of the participant's demographic data is provided in Table 1.

Table 1: Demographic Background of the Participants

No. of Learners	150
Gender	108 Females and 42 Males
Native Language	Kurdish, Persian
Majors	Translation, Literature, Teaching
Academic Years	2022
Age	20-30
Level of Proficiency	Intermediate

Note. All participants were required to complete a writing pretest and an achievement posttest. Additionally, the variable of gender was considered in this study. All participants were enrolled in the English course at the Islamic Azad University, Kurdistan Branch, Iran, in five distinct classes.

Research Instruments

The California Critical Thinking Skills Test (CCTST)

The CCTST was designed by Facione (1990) to assess one's disposition to use critical thinking. There are 34 items in this questionnaire. Multiple-choice items are based on everyday experiences that are relevant to the intended test-taker population. Each item demands the test-taker to provide an accurate and thorough explanation of the question. Any specialized information required to reply appropriately is included in the question itself. The intensity and intricacy of the standardized test items vary. Various questions gradually invite test-takers to investigate or construe information in text, graphs, or illustrations, to show precise and justified conclusions, to assess assumptions and demonstrate why they depict positive or negative justification, or to discuss why a provided assessment of a logical deduction is good or bad. The tool is normally given in 45-50 minutes; the test duration is chosen to allow for high - development within the range of achievable energy for the target sample group.

The validity of the California group of measurement techniques is based on the cross-disciplinary conceptual definition of critical thinking developed during the APA Delphi Research Study (1988-1990) and replicated in the mid-1990s by the Department of Education-funded Penn State University Research study. The CCTST scales correlate to Delphi's primary critical thinking abilities. The CCTST is composed of items taken from a pool of objects tested over the last two decades. The items used on each of these instruments have been subjected to the standard validation procedures. Validation samples are often formed of test taker groups located both inside and outside the United States. Independent research has established the CCTST's criterion validity, the highest level of validity for measuring tools.

The CCTST presents a range of rating scales that describe one's advantages and weaknesses in several skill areas. The California Critical Thinking Skills Test is scored on the following scales in all forms and versions: Analysis, Evaluation, Inference, Deduction, Induction, and Overall Reasoning Skills.

The CCTST with seven dimensions (available online) provides standardized methods in all of the participant's fundamental critical thinking skills listed above, as well as scores for Interpretation and Explanation; this more refined presentation supports postgraduate learning outcomes goals by allowing evaluators to evaluate and identify each of the skills.

The CCTST was created to assess test takers' ability to exhibit the critical thinking abilities necessary for success in educational or professional contexts where problem-solving and decision-making via the use of reasoned judgment are vital. The CCTST, which is used across the United States and in a variety of countries and languages worldwide, has been shown to accurately predict critical thinking ability in actual issue scenarios and performance on professional license tests.

• The CCTST is suggested in educational contexts for evaluating program applications, counseling individual students, assessing learning outcomes, program evaluation, accreditation, and research.

• The CCTST is often used in business settings to test job applicants' reasoning abilities as part of a thorough and cost-effective hiring process or as part of a staff development plan.

The CCTST scales and their definitions are provided in Table 2.

Table 2: CCTST scales, based on the Insight Assessment CCTDI website (Insight Assessment 2016) and the user manual (Insight Assessment 2017a)

Scale	Scale Description
Overall score	**The overall measure of critical thinking mindset.**
Reasoning Skills - Overall	The Ability to Reason Overall refers to an individual's ability to use reasoning to make thoughtful judgments about what to believe or do. To get a high overall score, the test taker must demonstrate persistent, focused, and integrated use of fundamental reasoning abilities such as analysis, interpretation, inference, evaluation, explanation, induction, and deduction. The Overall score indicates a person's ability to succeed in educational or job environments that require rational decision-making and deliberate problem-solving.
Analysis	Analytical reasoning abilities help individuals to recognize assumptions, reasons, and assertions, as well as to study how they combine to generate arguments. We employ analysis to extract information from charts, graphs, diagrams, oral communication, and written materials. Individuals with high analytical abilities pay close attention to patterns and details. They classify a situation's components and establish how those components interact. Strong interpretation abilities may bolster the quality of analysis by giving context for what someone is expressing or what something implies.
Inference	The ability to infer from arguments and facts enables us to reach conclusions. When we make intelligent recommendations and guesses, we employ inference. The ability to infer the required or extremely likely implications of a given set of facts and situations. Conclusions, hypotheses, suggestions, or judgments based on flawed analysis, disinformation, inadequate data, or biased assessments may prove to be incorrect, even if they were obtained with superior inference abilities.
Evaluation	Evaluative reasoning abilities help us to determine the reliability of information sources and the assertions they make. Additionally, we use these abilities to ascertain the positive or negative points of arguments. We may evaluate the quality of analyses, interpretations, explanations, inferences, alternatives, views, beliefs, ideas, proposals, and conclusions by using assessment abilities. Strong explanation abilities may contribute to the production of high-quality evaluations by giving the facts, justifications, techniques, criteria, or assumptions that support the assertions and conclusions reached.
Deduction	Making decisions in clearly defined environments where rules, operational circumstances, basic beliefs, values, policies, principles, processes, and language all have a significant influence on the result requires good deductive reasoning abilities. Deductive reasoning proceeds with exactitude from the presumed validity of a collection of beliefs to a conclusion that cannot be wrong if the collection of beliefs is true. Deductive validity is logically precise and unambiguous. There is no place for doubt in deductive validity unless one modifies the meanings of words or the syntax of the language.
Induction	Inductive reasoning is used to make decisions in ambiguous situations. When we make inferences about what we believe must be true based on analogies, case studies, past experience, statistical analyses, simulations, hypotheticals, and familiar events and patterns of behavior, we are using inductive reasoning abilities. As long as there is a remote chance, however remote, that a highly likely conclusion is incorrect, inductive reasoning is used. While inductive reasoning does not give certainty, it may provide a firm foundation for trust in our findings.

The California Critical Thinking Disposition Inventory (CCTDI) (1992).

The CCTDI (Facione, 1992/2011) was developed, validated, and used to assess students' disposition toward critical thinking (CT). Except for the CCTDI, no instruments have been identified in the literature that claim to test the dispositional aspect of CT validly and reliably. The current available on the market assesses CT abilities, such as the capacity to make accurate inferences, analyze statements effectively, and evaluate reasoning accurately. These instruments, in general, predate the Delphi Research Project (Watson & Glaser, 1980; Ennis et al., 1985; Ennis & Weir, 1985) and hence make use of less rigorous theoretical formulations of the CT concept. The California Critical Thinking Skills Test (CCTST) (Facione, 1990, 1992, 2011) is one instrument that relies on the Delphi concept. It is frequently applied to evaluate the CT skills of learner samples (Carter-Wells, 1992; Love, 1993). Due to the fact that the CCTDI seems to be the main independent test of the tendential dimension of CT, convergent validity research comparing multiple CT disposition assessments was not feasible at the time. However, strong relationships between specific CCTDI scores and known psychological scales targeting related topics have been identified, indicating concurrent validity (Hight et al. 1993).

Face validity is not always desired in self-report attitudinal inventories. On the one hand, it seems as if an attitude tool with poor face validity does not achieve its stated purpose. Furthermore, an effective-face-validity attitude test may induce in certain participants the inclination to reply with the socially anticipated reaction rather than an authentic self-report. In terms of face validity, college professors who took the CCTDI readily admitted that the item prompts struck them as suitable for the intended disposition. For example, it's difficult to identify someone as a genuine truth seeker if they agree with comments like these: "I seek facts that support my ideas, not facts that contradict them", "Many questions were just too terrifying to ask", and "I already know what I believe; why should I pretend to consider my options?" Individuals who score low on the open-mindedness measure often agree with the following statements: "Others have the right to their ideas, but I don't need to hear them" and "You were not entitled to your viewpoint if you were manifestly wrong."

It consists of 75 statements, divided into seven subscales: Truth-seeking, Open-mindedness, Analyticity, Systematicity, Self-confidence, Inquisitiveness, and Maturity. The CCTST scales and their definitions are provided in Table 3.

Table 3: CCTDI scales, based on the Insight Assessment CCTDI website (Insight Assessment 2016a) and the user manual (Insight Assessment 2017a)

Scale	Scale Description
Overall score	**The general scale of critical thinking disposition.**
Truth-seeking	The act of continuous pursuit of extensive knowledge on any subject is known as truth-seeking. It involves following arguments and facts wherever they may lead, even if they challenge one's deeply-held beliefs. Truth seekers are not afraid to ask difficult and sometimes unsettling questions. They diligently gather and consider all relevant information, making a conscious effort to avoid letting bias or preconceived notions hinder their quest for knowledge and truth. On the contrary, prejudice stands in stark contrast to the truth-seeking mindset, as it disregards sound arguments and pertinent data in order to evade confronting challenging concepts.
Open-mindedness	The disposition to allow individuals to express their opinions even when one disagrees is known as open-mindedness. Open-minded individuals show tolerance for the viewpoints of others, recognizing that we often have ideas that only make sense from our own perspectives. In the context used here, open-mindedness is crucial for preserving peace in a diverse and intricate society where individuals approach issues from various religious, political, social, familial, cultural, and personal standpoints. Intolerance represents the complete opposite of open-mindedness.
Analyticity	The act of being forward-thinking involves actively seeking out what may occur in the future.

Scale	Scale Description
	This entails anticipating both the potential positive and negative implications and outcomes of various circumstances, decisions, ideas, and plans. Conversely, the opposite of objective truth is to be indifferent towards consequences and neglect to consider the subsequent events that may unfold when making decisions or thoughtlessly accepting ideas.
Systematicity	The act of addressing issues in a disciplined, methodical manner. The opposite is disorganization. An individual proficient in systematic thinking may lack knowledge of specific techniques or struggle with certain problem-solving strategies, but they possess the inclination and inclination to approach problems and challenges in an organized and orderly way.
Self-confidence	The act of utilizing self-reflection to address problems and make choices is known as introspection. Trust in reasoning, similar to the other characteristics explored in this analysis, applies to individuals as well as organizations. A family, team, company, community, or society can depend on rational judgment to resolve issues and accomplish objectives. Conversely, distrust in logic manifests as a reluctance to employ comprehensive reasoning and contemplation when forming judgments or deciding what to believe or do.
Inquisitiveness	Refers to the inclination to seek knowledge, regardless of its immediate or apparent practicality. It entails a genuine curiosity and enthusiasm for acquiring new information and understanding the underlying reasons behind phenomena, even when the immediate impact of such knowledge may not be readily apparent. Conversely, indifference stands in stark contrast to curiosity.
Maturity	The act of acknowledging the intricacies of problems while still striving to make informed decisions is a characteristic of a discerning individual. A mature individual understands that there may be multiple valid solutions but also recognizes the importance of reaching a conclusion even in the absence of complete knowledge. Conversely, cognitive immaturity involves behaving recklessly, distorting one's thinking, wasting time, stubbornly refusing to change when presented with logical reasoning and evidence of error, or arbitrarily altering ideas without adequate justification.

Data Collection Procedures

To address research question number one, "Do gender-based differences have any significant effect on the improvement of EFL learners' argumentative writing skill through synthesizing a critical thinking disposition and action learning approach?" the researcher investigated the critical thinking dispositional features improvements of the learners in the course of the study and investigated these improvement results based on the pretest and posttest scores.

To address the first question of the study, the researcher initially examined the principles of the CCTST and administered the California Critical Thinking Disposition Inventory (CCTDI) at the beginning of the course. The CCTDI comprises seven categories: inquisitiveness, self-confidence, truth-seeking, open-mindedness, analyticity, systematics, and maturity (Facione et al., 1994). Following this, the researchers employed action learning approaches for instruction. As previously mentioned, the researchers divided the sample into two groups at the outset of the study: males (n=48) and females (n=102). Both groups were given the test to assess their current critical thinking disposition and abilities. Subsequently, the pretest and posttest results were compared based on their gender after the treatment stage.

Upon the introduction of the teaching material, which was "*The Practical Writer with Readings 9th edition*" the researchers proceeded to administer it to a total of 150 intermediate learners (N=150) who had scores from the Oxford placement test falling within ±1 standard deviation from the mean. These learners were selected based on convenient non-random sampling. Subsequently, the participants were divided into two groups: the male group, consisting of 48 participants, and the female group consisting of 102 participants.

The CCTDI questionnaire was applied to both groups prior to the treatment. This test was used to evaluate the critical thinking disposition of both male and female EFL learners. Due to the fact

that the participants in both groups' proficiency was intermediate, the English version of the questionnaire was employed in this research. However, the questionnaire manual helped participants through the process of filling out the questionnaire. The time allocated for the questionnaire's 30 questions was about 40 minutes.

Before beginning the study's treatment stage and collecting the data for question number two, one of the researchers, who was the instructor, outlined the requirements to the EFL learners in both groups to avoid any potential distractions.

The learners in both groups received the same quantity of training, the same manner of education, and the same textbook throughout the research, with their group members in the classroom discussion based on the action learning strategies environment. Participants in both groups used the action learning methodology and were then instructed to debate the issues with their peers during the last 45 minutes of each session.

At the end of the term of treatment (16 sessions), the argumentative writing posttest was given to both groups. The topic in the posttest was different to the one which was used in the pretest. It should be mentioned that, in the pretest, learners were not told that they would take the same topic at the end of the course.

To answer research question number two,"Do male and female Iranian EFL learners show any significant differences considering critical thinking dispositional features improvements in their writing course or not?" Gender is a broad phrase that refers to the male and female characteristics that contribute to an individual's psychology and social role, having an effect on how people think, behave, and experience a phenomenon inside the self. According to the description, males and females may vary in terms of thinking abilities and dispositions. Fuad et al. (2017) claimed that males and females have equal conceptual knowledge, but males are better at problem-solving. On the other hand, Taghva et al. (2014) found no significant association between male and female critical thinking. On the other side, Yenice (2011) asserts that critical thinking dispositions vary depending on the sex of the learner, which benefits female students. The researcher attempted to study gender disparities in the development of argumentative writing reasoning in question number one.

In the pretest phase for collecting related data for research question number one, the researchers again used the California Critical Thinking Skills Test (CCTST) and action learning strategies to assess the impact of critical thinking disposition and action learning on their argumentative writing improvement through a gender-based view.

As it was stated, the researchers in question number one tried to investigate gender-based differences effect on the improvement of argumentative writing skill through synthesizing a critical thinking disposition and action learning approach. In doing so, at first, they reviewed the CCTST principles again. The normal routine of teaching the main source was conducted, but with a minor difference in homework for female and male EFL learners; for collecting the related data and effect of the treatment, the researcher assigned male and female learners homework topics in two different topics at the end of each session, and based on the action learning principles designed a small group of eight female learners and eight male learners to work and discuss and brainstorming the topics with each other.

As mentioned earlier, the (CCTST) principles were administered as both the pretest and the posttest in their argumentative writings, so after the treatment stage, the researchers again gave this test to EFL learners to assess the impact of gender-based differences on argumentative writing development.

The following eight sessions of the study were classified as experimental because they focused on developing higher-order thinking abilities. In each session, the teacher introduced learners to higher-order thinking skills based on the CCTDI (California Critical Thinking Disposition

Inventory). The advanced section covered levels of analysis, systematicity, maturity, synthesis, and assessment. Each level addressed a different set of questions. For instance, first-level questions included contrasting and generalizing, while second-level questions involved categorizing and contrasting. Third-level questions focused on drawing conclusions and justifying them. Moreover, EFL (English as a Foreign Language) learners were taught specific learning strategies that aligned with the different levels of CCTDI principles.

After completing a series of sixteen treatment sessions that were guided by CCTDI features, the investigator proceeded to administer the CCTDI once more to the EFL learners. This was done in order to improve EFL learners' argumentative writing through critical thinking disposition from gender-related differences.

In the last treatment session, or session 16, the posttest was administered in all five groups. The participants were directed to compose an essay comparable to the pretest but on a different subject. To expand on the prospective benefits of critical thinking disposition, the posttest writing scores of the students were compared with their pretest grades. Using the CCTST writing rubric, three experienced instructors who have taught English composition courses for more than ten years graded the writings of all groups of participants.

The CCTDI questionnaire was designed to investigate the attitude of the research samples and their effectiveness in enhancing EFL learners' argumentative writing. The questionnaire was conducted in an online (Google Doc) setting. EFL learners (n=77) who answered the CCTDI questionnaire items designed and uploaded by the researchers. This online questionnaire was conducted to enhance the results by collecting more in-depth data from learners and teachers about their attitudes toward the English language, strategy use, and views toward having a critical thinking disposition in education.

Data Analysis Procedures

The researcher employed the Critical Thinking Disposition Inventory (CCTDI) and the California Critical Thinking Skills Test (CCTST) to collect data for both inquiries. Subsequently, the researchers utilized the CCTDI to evaluate the findings. The CCTDI yielded eight grades, including seven scale-related scores and an overall total score. According to Facione et al. (1996), individuals with a positive disposition toward critical thinking typically gained five or six points for each item, while others with a weak inclination scored three or fewer points per item. These scores were then converted into statistical measures ranging from a minimum of 30 points to a maximum of 60 points. An individual scoring above 50 on any of the sub-measures demonstrates a robust disposition, whereas a score exceeding 40 indicates a favorable disposition. Scores falling between three and 39 suggest an ambivalent disposition. A score of 30 or below signifies a negative inclination, while a score between ten and 20 indicates a significant negative disposition. The highest total score was 420. A total score of less than 280 indicates a notable deficiency in critical thinking capacity. Scores ranging from 280 to 350 are considered favorable, while scores of 350 or more strongly indicate overall strength in a specific disposition (Facione et al., 1997).

In order to enhance grading, learners maintained a record of their answers to the CCTDI items on answer sheets. All 75 items provided six options for selection. The instructions for optical scoring contained precise guidelines on how to interpret and respond to each of the six possible choices. Furthermore, Facione et al. (1996) provided supplementary instructions on arranging the items based on the relevant sub-scales, aggregating the scores for each item to determine the raw scale score, normalizing each scale score, and calculating the overall score.

4. RESULTS

Gender-based Differences in the Two Groups

In the present study, attempts were made to determine whether there were gender differences at work while the EFL learners in the EGs were exposed to the treatment and the CGs received conventional instruction. To this end, teaching conditions and gender were regarded as two independent variables, and argumentative writing was considered as the dependent variable; thus, a two-way ANCOVA was conducted to help clarify the possible effects of gender (and the method of instruction). The results of the two-way ANCOVA analysis are provided in Tables 4 and 5.

Table 4 shows that the difference between the male and female learners in the EGs was very insignificant in experimental groups: critical thinking (17.84 vs. 18.43), action learning (17.81 vs. 18.03), and synthesizing critical thinking and action learning (17.31 vs. 17. 43) and also the male and female learners in the CG obtained mean scores which were only slightly different (14.30vs. 14.45.). The total mean score for males (M = 16.81) was slightly greater than the total mean score

Table 4: Descriptive Statistics for Writing Posttest Scores of Males and Females in the EGs and CGs

Group	Gender	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Exp G1	Male	17.847a	.323	17.208	18.486
	Female	18.434a	.268	17.904	18.965
Exp G 2	Male	17.815a	.326	17.171	18.459
	Female	18.033a	.221	17.597	18.469
Exp G3	Male	17.318a	.304	16.716	17.920
	Female	17.437a	.243	16.957	17.917
cont G	Male	14.304a	.150	14.008	14.600
	Female	14.454a	.166	14.127	14.782

Note: Covariates appearing in the model are evaluated at the following values: Pretest = 13.5617.

Table 5: Two-way ANCOVA for the Writing Posttest Scores of the EGs and CGs

Source	df	Mean Square	F	Sig.
Corrected Model	12	65.096	78.104	.000
Intercept	1	171.780	206.107	.000
Group	3	23.553	28.259	.000
Gender	1	.299	.358	.551
Pretest	1	68.145	81.763	.000
Group * Pretest	3	12.092	14.508	.000
Gender * Pretest	1	.543	.651	.421
Group * Gender * Pretest	3	.237	.285	.836
Error	137	.833		
Total	150			
Corrected Total	149			

Note. a. R Squared = .872 (Adjusted R Squared = .861)
Tests of Between-Subjects Effects Dependent Variable: Posttest

for females (M = 17.10). In order to see whether the differences between the EGs and CGs and also between the two gender groups on the argumentative writing posttest were statistically significant or not, Table 5 had to be examined.

The *p*-value under the Sig. column for Gender was found to be smaller than the .05 significance level, which means that belonging to different gender groups did not have a significant effect on the argumentative writing performance of the learners. The interaction of the two independent variables did not have a significant effect on the EFL learners' performance as the p-value corresponding to the row labeled Groups*Gender was found to be larger than the alpha level of significance (.421 > .05).

Gender and Critical Thinking Dispositional Features

Another aim of the present study was to unearth whether there were any gender-based differences in the critical thinking dispositional features of male and female Iranian EFL learners. To this end, the total score for critical thinking dispositional features was calculated from the learners' responses to the CCTDI questionnaire. The total scores obtained for male and female learners were compared via an independent-sample t-test. The results of the t-test are presented in the following tables:

Table 6: Descriptive Statistics for Comparing CCTDI Scores of Male and Female Learners in the EG

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	22	355.22	13.66	2.91
Female	55	325.94	16.92	2.28

As can be observed in Table 6, there was a difference between the CCTDI scores of male (M = 355.22) and female learners (M = 325.94). To unfold whether the difference in the CCTDI scores of the two gender groups was statistically significant or not, the following t-test table had to be examined:

Table 7: Independent-Samples t-Test for CCTDI Scores of Male and Female Learners in the EG

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F.	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	1.42	.23	7.21	75	.000	29.28	4.05	21.20	37.36
Equal variances not assumed			7.91	47.71	.000	29.28	3.70	21.83	36.72
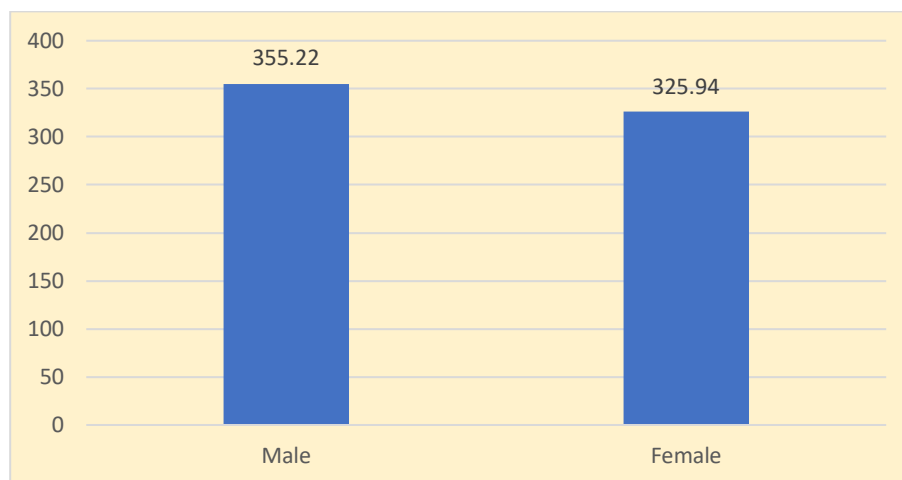
Figure 1: CCTDI mean scores of the male and female learners in the EG

Table 7 shows that there was a statistically significant difference in CCTDI scores for males (M = 355.22, SD = 13.66) and females (M = 325.94, SD = 16.92), t (75) =7.21, p = .000 (two-tailed). Thus, it could be inferred that male EFL learners managed to obtain significantly higher CCTDI scores than their female counterparts in the EGs. Figure 1. depicts the CCTDI scores of the two gender groups.

Note. These scores revealed that the two gender groups in the EG were drastically different from each other, as their CCTDI scores were concerned. This means that there is a significant difference between the critical thinking disposition of the male and female EFL learners participating in this study.

5. DISCUSSION

The statistical analysis of the results of the present study demonstrated that the differences between male and female EFL learners were insignificant and belonging to different gender groups that did not have a significant effect on the argumentative writing performance of the learners.

To test the first research question, an independent-sample t-test was performed on the total score for critical thinking disposition obtained from the questionnaire. The statistical analysis of the results showed that there was a statistically significant difference in CCTDI scores for males and females. Thus, it could be inferred that male EFL learners managed to obtain significantly higher CCTDI scores than their female counterparts in the EG.

EFL teachers should try to make learners aware of the principles of critical thinking to increase learners' willingness to learn about a variety of topics, have an interest in learning more and be knowledgeable, be fond of searching for possibilities to apply critical thinking skills, be self-assured in their own reasoning ability, be willing to consider opposing opinions, develop adaptability in weighing options and viewpoints, promote a keen awareness of potential unexpected cases in order to foresee their effects, be aware of others viewpoints, be objective in evaluating reasoning, and have wisdom in postponing, making, or changing decisions readiness to review and alter positions when honest contemplation indicates that change is required.

When investigating the role of gender in language learning, the researchers should take into account the different ways in which gender may influence language usage and improvement. Gender is an important factor influencing language practice and learning. The reason can be related to biological and psychological effects or sociocultural differences that can greatly influence one's success in language development. The subject of gender influence as male and female in cognition

or educational success has a long history, but since the 1970ˢ, it has gained more significance in educational studies. The most important dimension of this concern, which should be focused on, is that no credible researcher has ever presented results that male-female differences on any scale of intelligence level are unusually significant compared to the level of differences within either gender. By way of explanation, even in fields where significant gender issues are recognized, these distinctions are so minute and varied that they have minimal pragmatic significance Hallers-Haalboom et al. (2020).

As it was observed in this study, gender was not found to have a profound impact on writing improvement as far as critical thinking and action learning were concerned. This is in fact, in line with previous research whereby contradictory results were obtained. The study by Hashemi et al. (2014) can be considered one that is similar to the present dissertation in that both investigated the effects of CT on argumentative writing among EFL learners. Similar instruments were also employed; they both focused on gender differences, but in the gender dimension, their results were different since, in that research, gender differences played an important role in learners' argumentative writing development.

In a study conducted by Nayernia et al. (2020), the potential influence of gender and age on participants' argumentative writing was examined. The study focused on the application of the Toulmin (1958/2003) model of argument structure. A corpus of argumentative essays written by 250 Iranian postgraduate English language learners, comprising both male and female individuals, was utilized for data collection. The participants' age and gender were treated as independent variables. The study analyzed six key categories of argumentative structure within the learners' writing tasks and employed MANOVA to examine the observed frequencies. The findings indicated that there were no statistically significant differences between participants' age and gender and the type and frequency of Toulmin elements in argumentation.

Nayernia et al. (2020) investigated the influence of gender and age on EFL learners' argumentative writing development, but the present study investigated the role of gender in argumentative writing improvement and critical thinking disposition. Like Nayernia et al.'s study, the participants' gender was treated as an independent variable. Both study results were similar to each other in that gender did not play an important role in the Iranian EFL learners' argumentative writing improvement.

Thus, it is axiomatic that when teachers and materials developers synthesize these principles and strategies in their methodology and writing programs, the writing ability of the learners is better improved. The learners are enabled to accomplish planned change in their observable behavior in the issue field through responsible engagement in a genuine, difficult, and stressful situation. Theory and practice would be merged, which leads to the advancement of the individuals and organizations to the next level of output, growth, employment, and even loyalty (people who are growing and learning rarely leave the organization). This is how people and teams can learn new things while focusing on conflict resolution and taking action. In effect, the members of a class or group would collaborate in order to overcome obstacles via action and reflection. It could become a multi-purpose, systematic activity, depending on how well it is linked to the group's structure and made importance to the individuals' way of life.

6. CONCLUSION

The current research aimed to investigate the role of gender and critical thinking disposition in enhancing argumentative writing development. It was concluded that (a) critical thinking disposition and gender differences had a significant effect on enhancing Iranian EFL learners' argumentative writing, (b) there was not a significant gender-based difference between the writing scores of the learners in this study, and (c) gender did play a role in the critical thinking disposition

scores of the learners and male learners significantly outperformed female ones in the CCTDI scores.

The results of this study, as well as other studies, prove the fact that the absence of CT skills from EFL courses results in EFL students who are disadvantaged by the opportunity to learn how to think critically (e.g., learners in the control groups) mostly weaker than those EFL learners who benefit from CT instruction. On the other hand, incorporating CT and gender-related concerns is bound to lead learners to think more critically about the information they learn, test the validity of materials, attempt to consider alternative theses, evaluate evidence, etc. The effective results experienced from the unification of CT and gender-related concerns in writing courses in an EFL context like Iran guarantee more positive outcomes if CT and gender-related concerns are combined in L2 writing courses.

Another conclusion that the present study proposed is that CT is teachable in EFL contexts. Gender differences and their viewpoints toward critical thinking disposition could be outlined and highlighted. However, the related literature that investigated different approaches and techniques to facilitate CT in EFL argumentative writing is limited. Conducting more research is required in this field.

All researchers face challenges, difficulties, and restrictions in the process of completing a research project, and this research is no exception. They involved the participants taking part in this study, the university administrators who assisted the researcher in conducting the study, and the time of data collection. The participants in this study were EFL learners who were learning at the university. The groups of subjects for this study were selected during one educational semester. The conclusion is valid as long as the scope of this study allows. Because of the limitations imposed on the research, generalizing the findings of the present study must be made carefully.

The generalizability of the findings is also restricted by the sample size. It seemed that the size of the sample was small, and larger samples may be better able to analyze the effect of critical thinking and action learning on improving argumentative writing. The participants of the study were EFL learners. They were also non-native English learners who taught English mostly at the university. Therefore, the range and variety of participants were also limited. Thus, one of the limitations of this study pertains to its generalizability. The major limitation of the study was that the subjects in the study were not selected randomly. A convenience sample was used. The small size of the sample groups shed doubt on the universal validity of the observed significance. A study with more participants must be replicated to gain more reliable and generalizable outcomes.

Some delimitations of the study include that the researcher was a teacher at the university from which the sample was selected. Additionally, the sample size was small since the study was conducted in five online classes. The opportunity to record and analyze the classes after being held helped the researcher to overcome the pitfalls of the online classroom environment. Although the sample size was small, the online environment provided a useful opportunity for the researcher to gather different EFL learners from different cities of the Kurdistan province, a context in which in-person classes were impossible.

References

Abdar, S., & Shafaei, A. (2022). The relationship between EFL teachers' reflective thinking and their teaching style in Iranian EFL context. *Reflective Practice*, 23(5), 565-577. https://doi.org/10.1080/14623943.2022.2086534

Amirian, S. M. R., Ghaniabadi, S., Heydarnejad, T., & Abbasi, S. (2023). The contribution of critical thinking and self-efficacy beliefs to teaching style preferences in higher education. *Journal of Applied Research in Higher Education*, 15(3). https://doi.org/10.1108/JARHE-11-2021-0441

Carter-Wells, J. A. (1992). Defining, teaching, and assessing critical thinking in a multicultural context. Paper presented at the meeting of the Association of American Colleges, Washington, DC.

Eghbali, A., Salehi, A., Ghaedi, Y., & Mahmoudnia, A. (2023). A reflection on the basic features of emancipatory classroom components in higher education. *Quarterly Journal of Research and Planning in Higher Education*, 27(1), 27-50.

Ennis, R. H., Millman, J., & Tomko, T. N. (1985). *Cornell critical thinking tests level X & level Z: Manual*. Midwest Publications.

Ennis, R. H., & Weir, E. E. (1985). *The Ennis-Weir critical thinking essay test: An instrument for teaching and testing*. Midwest Publications.

Facione, P. A. (1990). *The California Critical Thinking Skills Test–College Level. Technical Report # 1. Experimental Validation and Content Validity*. California Academic Press.

Facione, P. A. (2011). Critical thinking: What it is and why it counts. *Measured Reasons*, 1-28. (Original work published 1992)

Facione, N. C., Facione, P. A., & Sanchez, C. A. (1994). Critical thinking disposition as a measure of competent clinical judgment: The development of the California Critical Thinking Disposition Inventory. *Journal of Nursing Education*, 33(8), 345-350.

Facione, P. A., Facione, N. C., & Giancarlo, C. A. F. (1996). The motivation to think in working and learning. *New Directions for Higher Education*, 1996(96), 67-79.

Facione, P. A., Facione, N. C., & Giancarlo, C. A. (1997). *Professional judgment and the disposition toward critical thinking*. California Academic Press.

Fahim, M., & Ahmadian, M. (2012). Critical thinking and Iranian EFL context. *Journal of Language Teaching and Research*, 3(4), 793-800. https://doi.org/10.4304/jltr.3.4.793-800

Fahim, M., & Eslamdoost, S. (2014). Critical thinking: Frameworks and models for teaching. *English Language Teaching*, 7(7), 141-151. https://doi.org/10.5539/elt.v7n7p141.

Freeley, A. J., & Steinberg, D. L. (2013). *Argumentation and debate*. Cengage Learning.

Fuad, N. M., Zubaidah, S., Mahanal, S., & Suarsini, E. (2017). Improving junior high schools' critical thinking skills based on test three different models of learning. *International Journal of Instruction*, 10(1), 101-116. https://doi.org/10.12973/iji.2017.1017a

Hallers-Haalboom, E. T., Maas, J., Kunst, L. E., & Bekker, M. H. (2020). The role of sex and gender in anxiety disorders: Being scared "like a girl"? *Handbook of Clinical Neurology*, 175, 359-368. https://doi.org/10.1016/B978-0-444-64123-6.00024-2

Hashemi, M. R., Behrooznia, S., & Mahjoobi, F. M. (2014). A critical look into Iranian EFL university students' critical thinking and argumentative writing. *Iranian Journal of Applied Linguistics (IJAL)*, 17(1), 71-92. https://doi.org/10.1016/j.sbspro.2014.03.447.

Hashemi, M. R., & Zabihi, R. (2012). Does critical thinking enhance EFL learners' receptive skills? *Journal of Language Teaching and Research*, 3(1), 172-179. https://doi.org/10.4304/jltr.3.1.172-179.

Hight, T. K., Hornberger, L., & Sanchez, L. A. (1993, September). Toward critical thinking mechanical designers. In *International Design Engineering Technical Conferences and Computers and Information in Engineering Conference* (Vol. 11702, pp. 189-193). American Society of Mechanical Engineers.

Hoorijani, S., & Heidari Tabrizi, H. (in press). Critical thinking in the Iranian EFL context: A systematic review. *Research in English Language Pedagogy (RELP)*.

Hoorijani, S., Heidari Tabrizi, H., & Masoomi, M. (2022). The role of critical thinking disposition in enhancing argumentative writing skill: Iranian EFL teachers' and learners'

perspective. *Journal of New Trends in English Language Learning*, 1(1), 23-39. https://doi.org/10.30495/jntell.2022.697729

Khorasani, M. M., & Farimani, M. A. (2010). The analysis of critical thinking in Fariman's teachers and factors influencing it. *Journal of Social Science of Ferdowsi University*, 6(1), 197-230.

Love, G. D. (1993). *Computer aversion in preservice teachers: Its relationship to critical thinking skills and other individual and demographic variables*. New Mexico State University Press.

Mayer, R. E. (2002). Rote versus meaningful learning. *Theory into Practice*, 41(4), 226-232. https://doi.org/10.1207/s15430421tip4104_4

Nayernia, A., Taghizadeh, M., & Farsani, M. A. (2020). EFL teachers' credibility, nonverbal immediacy, and perceived success: A structural equation modeling approach. *Cogent Education*, 7(1). https://doi.org/10.1080/2331186X.2020.1774099

Paul, R. W., & Binker, A. J. A. (1990). *Critical thinking: What every person needs to survive in a rapidly changing world*. Sonoma State University Press.

Plachkov, S. (2013). Harmonizing the competency profile of the teacher in technology training with the European Qualifications Framework. *Journal for Information Technology, Education Development, and Teaching Methods of Technical and Natural Sciences*, 3, 1-5.

Rashtchi, M., & Khoshnevisan, B. (2020). Lessons from critical thinking: How to promote thinking skills in EFL writing classes. *European Journal of Foreign Language Teaching*, 5(1), 34-47. https://doi.org/10.46827/ejfl.v5i1.3153

Ravandpour, A. (2022). The relationship between EFL learners' flipped learning readiness and their learning engagement, critical thinking, and autonomy: A structural equation modelling approach. *Journal of Language and Education*, 8(3), 97-105. https://doi.org/10.17323/jle.2022.12654.

Rezaei, M., & Jafari, M. (2014). Investigating the levels, types, and causes of writing anxiety among Iranian EFL students: A mixed methods design. *Procedia-Social and Behavioral Sciences*, 98, 1545-1554. https://doi.org/10.1016/j.sbspro.2014.03.577.

Schafersman, S. D. (1991). An introduction to critical thinking. http://www.freeinquiry.com/critical-thinking.html

Taghva, F., Rezaei, N., Ghaderi, J., & Taghva, R. (2014). Studying the relationship between critical thinking skills and students' educational achievement (Eghlid Universities as case study). *International Letters of Social and Humanistic Sciences*, 25(2), 18-25. https://doi.org/10.18052/www.scipress.com/ILSHS.25.18

Watson, G., & Glaser, E. M. (1980). *Critical thinking appraisal: Manual*. Psychological Corporation.

Yenice, N. (2011). Investigating pre-service science teachers' critical thinking dispositions and problem solving skills in terms of different variables. *Educational Research and Reviews*, 6(6), 497-508.

Zare, M., Barjesteh, H., & Biria, R. (2021). Enhancing EFL learners' reading comprehension skill through critical thinking-oriented dynamic assessment. *Teaching English Language*, 15(1), 189-214. https://doi.org/10.22132/tel.2021.133238

Emotional Management of Adult EFL Learners in Higher Educa-tion

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Abstract
Though the emotional aspects of language learning and teaching have received due attention in the past decades, this area of research remained almost untouched in Iran. To comply with this weak treatment, the present research adopted a mixed-methods approach to investigate how Iranian EFL adult students in higher education regulate their emotions and their ability to identify and manage their feelings. For this purpose, a group of 21 adult participants was chosen from various EFL colleges and academic locations in Iran. Data was collected using the reliable and valid TEIQue questionnaire developed by Petrides (2009) and supplemented with open-ended interviews. The findings made it clear that variables such as culture and society played an important role in shaping and changing the emotional vocabulary of English language students. The results also indicated that most EFL students did not use the Feeling Wheel tool (1980) to regulate their emotions, indicating emotional immaturity. Additionally, when using Daniel Siegel's technique (2012) to regulate their feelings, they were unable to connect it to their emotional repertoire derived from the feeling wheel tool. The findings, therefore, imply for a balanced attention to be given to learners' emotional maturity as well as their knowledge achievement in higher education.

1. INTRODUCTION

Humans and emotions are inextricably linked. In many academic domains, the advent of the concept of emotional intelligence has been a turning point. Over the past two decades, moral education, in particular, has improved. According to educational psychologists, the fundamental goal of teaching and learning, particularly in higher education, is emotional intelligence (EI) (Baron-Cohen, 2000; Vandervoort, 2006). Emotion regulation is a set of processes related to training what emotions are experienced, when they are experienced, and how they are evoked, which can be addressed through physical or mental processes (Gross, 2015). Whatever the mechanism is, some factors will definitely be involved in its operation or shaping.

One method of regulating emotions is through the influence of culture. Cultures are often transmitted through languages, and as a result, language plays a role in shaping our emotional thoughts and intuition (Barrett, 2006; Barrett et al., 2007). Moreover, an individual's orientation towards their culture's values is expected to influence their emotion regulation processes.

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Additionally, culture plays a significant role in determining whether specific emotion regulation techniques are suitable or dysfunctional for individuals within a particular society. This suggests that culture plays a pivotal role in determining the efficacy of emotion regulation strategies for human well-being (Butler et al., 2007).

Expressive suppression and cognitive reappraisal are two specific ways that are often studied in conjunction in the literature, as they have a definite influence on mood and wellbeing (Gross & John, 2003). For Webb et al. (2012), suppression involving the manipulation and reduction of emotion-expressed behaviors, like facial expressions of emotion, may be a response-focused strategy. It is regarded as a dysfunctional emotion-regulation activity that leads to less depression while maintaining one's mood. For example, there are two styles of culture: in Asia, there is an associated mutuality culture (individuals outline themselves in their relationships), and in Europe, there is an independence ambiance (Markus & Kitayama, 1991). Additionally, research has revealed that, while suppression affects people from all cultural backgrounds differently, it has a weaker detrimental influence on those from mutually beneficial cultural environments (Butler et al., 2007; Cheung et al., 2010; Kwon et al., 2013).

Webb et al. (2012) mentioned that reappraisal involves reinterpreting emotionally salient information or scenarios to change the emotional response. It is also thought to be associated with accommodating a feeling-regulation strategy used to diminish negative moods or increase positive moods. In 2012, Daniel Siegel created a method referred to as "name it to tame it" that has been influenced by a reappraisal strategy. He claims that our brain is split into two sections, and each half has distinctive responsibilities. The left hemisphere is logical and linguistic, whereas the right hemisphere is emotional and experimental. If the right side ignores the logic half, we will drown in an emotional flood. At the same time, separating our logic and language from our emotions may lead to a desire to live in an emotional desert. This strategy focuses on one's ability to hitch two elements of his brain together. In some cases, transferring these sections requires several challenges (Siegel & Bryson, 2012).

Hence, once someone is drowning in an emotional flood and needs someone else to regulate their emotions, we tend first to wish for them to retell the story to understand what makes them feel that way. Once that person talks about his unhealthy experiences, at the start of the discussion, his two hemispheres operate interactively; he is participating in his left hemisphere by putting the details into words (Siegel & Bryson, 2012). Recent research has looked into the significance of "affect labeling," or labeling emotions at the moment (Lieberman et al., 2007).

Unlike reappraisal, which requires participants to actively rebuild the meaning of a stimulus, associating a single word with a stimulus is all that is necessary for emotion labeling. For example, associating the word "anger" with a picture of a scowling face or bodily sensations. Participants are not told to change how intense their emotional state is, yet describing one's state unintentionally or accidentally reduces the intensity of emotional experiences (Lieberman et al., 2011). Affect labeling is a tactic for regulating emotions that can be summarized as "putting feelings into words." It refers to the belief that clearly naming one's emotional state, which is usually negative, reduces one's conscious experience, physiological response, and/or behavior as a result of that emotional state (Torre & Lieberman, 2018). Using the feeling wheel tool is one of the most effective ways to express feelings verbally. The analysis of emotions is aided by the Plutchik theory of emotions, one of the most important systems for categorizing universal emotional reactions. According to Plutchik, there are eight fundamental emotions—anger, fear, sadness, disgust, surprise, anticipation, and trust—that are physically primitive and have evolved to secure the survival of the species. A wheel of emotions was constructed by Robert Plutchik. This wheel is used to depict many emotions in an engaging and subtle manner ("Healthy Eu Project," n.d.).

Having an eye on this tool, stress, anxiety, and school failure have been on the rise for some time, and they are beginning to show up in younger students (IsHak et al., 2013). This phenomenon may be attributed to a multitude of factors, such as increased accountability and independence, academic demands, and an aptitude for regulating emotions (Enns et al., 2018). In fact, emotional intelligence has grown importance in the academic system over the last few decades, as it promotes students' psychological well-being, allows them to better understand their surroundings, and equips them with the skills they need to deal with the various situations that arise on a daily basis. As a result, this construct is built as a permanent and continuous educational process that promotes students' holistic development (Bisquerra, 2009; Petrides, 2016). Consequently, a close association exists between academic achievement and the appropriate absorption and emotional deployment of knowledge, underscoring the significance of comprehending the course material rather than relying upon mere repetition of information (Dolev & Leshem, 2017; Suberviola, 2012). In short, considering its significant impact on both educational and social levels, it is critical to foster the development of students' emotional intelligence.

Emotional skills have been identified by Ortiz and Rodriguez (2011) as potentially enhancing mental processes while aiding in the management of stressful situations, fostering attentiveness and self-motivation, and facilitating the successful completion of academic assignments and studies undertaken by students. Moreover, students who attain elevated levels of emotional intelligence acquire skills that facilitate the apt management of emotions, encompassing anxiety and depression. In addition, they experience augmented self-esteem and gratification with their endeavors due to their adeptness in implementing adequate coping strategies to govern their emotions and comprehend occurrences, hence recovering from dysphoric tendencies swiftly and efficaciously (Asle Fathali & Najipoor Ostadi, 2013; Frederickson et al., 2012).

Recent studies in the fields of psychology and linguistics have cast doubt on the belief that the quantity of emotional words in adults remains a mystery, leading to an observable lack of diverse emotional expressions in survey responses (Smith, 2020; Johnson et al., 2019). The present study aimed to explore the connections between the feeling wheel and Siegel's "name it to tame it" technique in relation to the emotional repertoire. To achieve this, an explanatory sequential mixed-methods research approach was employed to investigate the emotional intelligence of Iranian EFL adult students in higher education and their capacity to identify and manage their emotions. The research focused on extracting the emotional vocabulary of the students, with a particular interest in determining whether their emotional lexicon aligned with the Feeling Wheel tool and assessing their emotional maturity. Additionally, the study sought to examine the extent to which utilizing Daniel Siegel's technique could aid in regulating the students' emotions. These issues were investigated in response to the following questions:

1. Can the quantity of emotional words used by EFL students in society be estimated?

2. Is there a connection between emotional retention and the tool known as the "feeling wheel"?

3. Is it plausible that the utilization of the "name it to tame it" method for emotional regulation and its linkage with the emotion wheel tool can contribute to the emotional proficiency of English as a Foreign Language (EFL) learners?

2. LITERATURE REVIEW

In the previous section, an overview of the information gathered in the history of emotions and feelings was provided. This section identifies themes and trends, synthesizes the existing literature, and examines the contributions of the literature to the field. Through this synthesis, the gaps in the analysis become apparent.

Emotional labeling and emotional regulation

There is a belief in emotion regulation. It is likely a process that requires physical or mental effort and somehow "distracts" people from the source of their feelings. When a person experiences an emotion, it elicits a variety of independent responses in the sensory, physiological, and behavioral domains (Levenson, 2003; Mauss et al., 2005). Emotion regulation is generally characterized as changing the quality, duration, or intensity of emotion (Gross, 1998; Gross & Thompson, 2007; Koole & Rothermund, 2011), and that can be quantified by emotion scores in the ranges listed above. The individual's behavior that must modulate these key pathways of emotion production must be viewed as a form of emotional control. Exploration shows that relating feelings indeed down-regulates feelings when there are no unequivocal emotion regulation pretensions, which supports the nonsupervisory part of emotion labeling. The amygdala is activated less when emotionally charged stimulants are labeled with affective (rather than neutral) terms (Lieberman et al., 2007). Thus, when emotions have evolved to cause the organism to respond to a stimulus, active consideration of the emotion and its probable origins can be a sign that the challenge has been "overcome" and that the emotion's episode has ended (or has shrunk). The amount and detail of emotional vocabulary in different languages should correlate with cultural differences in the need to deal with specific feelings.

Multilingualism and Emotional Memory

Emotion norms and ideal feelings vary by culture, and while there is some agreement between real emotions and the respective norms for what emotions individuals should experience, as well as the standards for what feelings people would like to experience, it is far from perfect (Eid & Diener, 2001; Tsai et al., 2006). A series of psychology and neuroscience models known as "psychological constructionist views" suggest that language plays a fundamental role in emotions. According to psychological constructionist theories, emotions are felt when affective states are given meaning as particular examples of emotion categories that are present in a particular culture. Thus, emotions are believed to be the products of more fundamental psychological "components" (Barrett, 2006; Clore & Ortony, 2013; Cunningham & Brosch, 2012).

Ferré et al. (2010) investigated the recall of emotion terms by early and late bilinguals. Everyone had a better memory for emotion words, regardless of language dominance, age, the type and context of L2 acquisition, or linguistic similarity. The authors found that emotional intensity was equal in L1 and L2, at least for fluent bilinguals. In a later study, Ferré et al. (2013) assessed memory for emotion words in highly proficient bilinguals using encoding tasks that focused participants' attention either on emotionality elements or to word features (i.e., concreteness and number of vowels contained in each word). They discovered that positive terms had greater memory than neutral ones across all languages and tasks. However, cued tasks were used in both experiments. In summary, it can be challenging to pinpoint the emotional content and quantity of words that would prevail in L1 and L2 users' freely generated emotional vocabulary.

Emotional maturity in academic students

Relevant to the content of the previous paragraphs and following a review of numerous sources, it is likely that no thorough study of university students has been undertaken. Actually, Ferré et al. (2013) wanted to know how emotionally expressive university students were while taking into account their educational level. Some individuals were emotionally fragile, while others were still blooming. A growing amount of research demonstrates that a person's emotional maturity level has an impact on his or her academic performance and behavior. Furthermore, giving students regular chances to engage in their psychological experiences at school helps them transform those experiences into efficient learning (Lopez & Gardenas, 2014; Aragao, 2011). As a matter of fact, societies and families have a limited set of acceptable emotions, and people learn to suppress some

feelings that they intuitively believe are not acceptable in their household. As a result, they lose their ability to communicate or express what they are feeling.

Incorporating social and emotional learning (SEL) into the academic setting

Greenberg et al. (2003) report that in order to strengthen friendly relations between educators and scholars, student cooperation and resolving disagreements, reducing the feeling of academy security, developing social and emotional skills in scholars, educators, and academy leaders, and implementing programs and SEL classes are a must at the academy level. However, some of these initiatives have fallen short because they either (1) concentrate too intently on particular social or emotional issues, such as preventing bullying, substance abuse, delinquency, or violence, or (2) promote character development, job readiness, family life, volunteerism, or physical or mental health in a disorganized, haphazard manner. These usually disjointed attempts do not fall under the purview of SEL programming (Devaney et al., 2006). Improvements in the social-emotional climates of classrooms, schools, and districts are just a few examples of how SEL programming takes a more thorough and integrated approach to generating positive youth outcomes that endure a lifetime (Greenberg et al., 2003). According to Becker and Luthar (2002) and Catalano et al. (2004), SEL projects are created to create learning environments that meet students' developmental needs, such as feelings of safety, belonging, and community, and thus offer the best conditions for success in all spheres of their lives: academics, relationships, personal, and eventually in the workplace.

Utilizing Emotions for Teaching and Learning in Higher Education

At the school level, most of the research on emotions among teachers and students has been conducted, but a number of experts have lately made it clear that emotional issues need to be dealt with in higher education (Postareff & Lindblom-Ylänne, 2011; Hagenauer & Volet, 2014). Because the two learning worlds are so different, research results on school teaching and learning often cannot be generalized to higher education. Additionally, many studies of emotion in the classroom have been disconnected. Some theoretical frameworks, such as those that emerged in the areas of education psychology, learning sciences, and sociology, have formed a range of research traditions. Consequently, the results of emotion studies in education that use various approaches to analyze data are not uniform, and thus, there is a very unclear picture regarding this complicated phenomenon.

Connections between "the wheel of emotions" and "name it to tame it"

Observing how difficult it is for society, families, and students to verbalize their emotions, Robert Plutchik created what he called the "Wheel of Emotions" in 1980. In 1982, Gloria Wilcox released The Feeling Wheel: A Tool for Expanding Emotional Awareness and Increasing Spontaneity and Intimacy shortly after (Why a Feelings Wheel Supports Your Positive Parenting Journey, 2021). On the other hand, brain integration theory suggests that purposefully talking about emotional events is a more successful technique for increasing self-awareness, self-regulation, and right-brain-left-brain integration, and individuals can use that knowledge to help their children create connections and integration between the two parts of their brain. However, there was no clear explanation or evidence of whether this tool was used by a different range of people, especially adult students, to regulate their emotions or not.

3. METHODOLOGY

Design

Based on the research questions, it was intended to examine if it is possible to estimate the emotional proficiency of EFL students in society and its connection to emotional retention through

the utilization of the 'name it to tame it' method and the emotion wheel tool. For this purpose, an explanatory sequential mixed-methods research design was considered for this research. This design was adopted so that we could gather and analyze quantitative data first, followed by qualitative data, allowing for a comprehensive and holistic understanding of the research topic. This approach integrated both methods to validate findings and provided a nuanced and in-depth perspective, enhancing the overall rigor and trustworthiness of the research. The restrictions on the use of an explanatory sequential mixed-methods research design were time and resource constraints, complexity, potential bias, the sequential nature of the process, and limited generalizability. The research was conducted in two parts: quantitative and qualitative. A total of 21 adult EFL students (10 males and 11 females) studying English at EFL institutions participated in this study. They were randomly chosen from five universities in Iran. The cohort under investigation comprised individuals aged between 20 and 35 years. Ten individuals possessed Bachelor of Arts degrees, while the remaining individuals possessed a Master of Arts degree. All participants in the present study engaged in voluntary participation and were apprised of the confidential nature of their divulged information, with assurances that their data would solely be utilized for scholarly research pursuits. Data from various EFL institutions was collected for this study in order to allow for clear generalizations. The two main methods used to collect information were primary sources such as questionnaires and interviews. EFL adult students, who were drawn from a homogeneous population of English-speaking institutions and were all randomly selected, had a study sample size of 5–10 students in each class. The use of random sampling had the following advantages: first, no time, financial, or human resources were invested, and second, the selection of one element was not dependent on the selection of another element in the sample.

Instruments

Trait Emotional Intelligence (TEI) is seen as a blend of emotional self-perceptions situated in the lower tiers of personality hierarchies. The TEIQue-SF is a 30-item survey designed to assess overall trait intelligence (trait EI). It is derived from the longer version of the TEIQue (Petrides & Furnham, 2003) and has been developed to offer a comprehensive insight into the trait EI domain (Petrides & Furnham, 2001). Based on research conducted in one of the Turkish universities in 2013, the validity and reliability of the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) developed by Petrides and Furnham (2000, 2001) were measured. The internal consistency score of the TEIQue-SF was .81, and the test-retest reliability of the total score was .86. These results revealed that this scale is a valid and reliable instrument to use with Turkish university students ("Just a moment," n.d.). It consisted of two sections. The first section addressed student demographics, including gender, age, and education. The second component included 30 questions about students' emotional regulation abilities, which were assessed on a 7-point Likert scale from 1 to 7. "Never" (number 1) to "Always" (number 7) (see Appendix A). The second questionnaire was developed from the handouts for teaching middle and high school students about feelings (*New Jersey State Bar Foundation*, n.d.) and was used for qualitative data collection to collect emotional vocabulary from EFL students. This questionnaire consists of 14 open-ended interview questions (See Appendix B).

4. RESULTS

Data from the questionnaire and semi-structured interviews were analyzed to address the research questions.
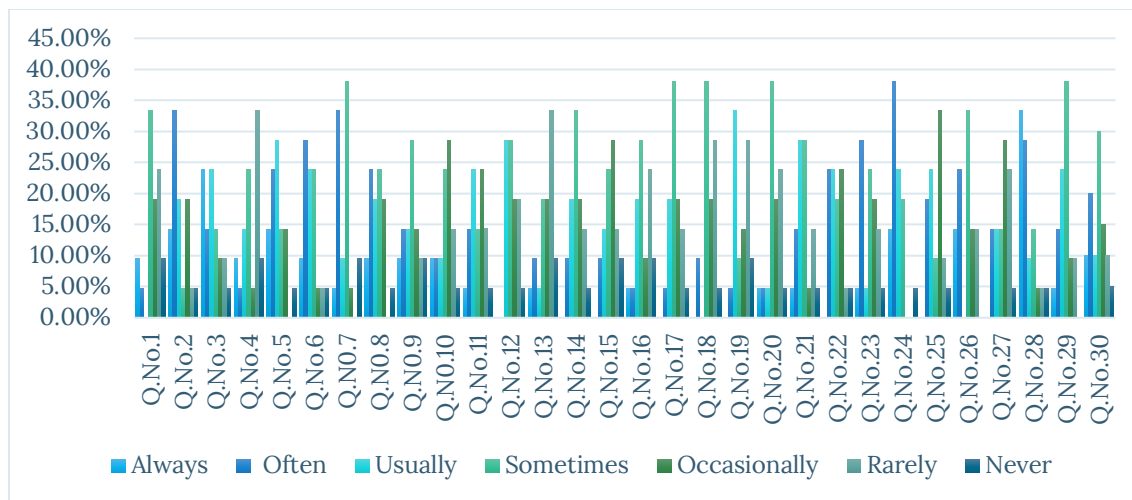
Online questionnaire

The first questionnaire, created specifically for the study, looks into the quantity of emotional terms EFL adult students have stored and their capacity to regulate their emotions. The

questionnaire, which contained 30 items about students' emotional control abilities, was evaluated on a seven-point Likert scale, with always = 7, frequently = 6, usually = 5, occasionally = 4, rarely = 3, and never = 1 (See Appendix A for more information). Table 1 shows the results of the calculations, which were examined using the Excel software application. Table 1 is followed by Graph 1, which visually displays all the data in Table 1.

Table1: The ability to regulate emotions in EFL students in percentage numbers

Questions Items	Always	Often	Usually	Sometimes	Occasionally	Rarely	Never
Question1	9.52%	4.76%	0.00%	33.33%	19.05%	23.81%	9.52%
Question2	14.29%	33.33%	19.05%	4.76%	19.05%	4.76%	4.76%
Question3	23.81%	14.29%	23.81%	14.29%	9.52%	9.52%	4.76%
Question4	9.52%	4.76%	14.29%	23.81%	4.76%	33.33%	9.52%
Question5	14.29%	23.81%	28.57%	14.29%	14.29%	0.00%	4.76%
Question6	9.52%	28.57%	23.81%	23.81%	4.76%	4.76%	4.76%
Question7	4.76%	33.33%	9.52%	38.10%	4.76%	0.00%	9.52%
Question8	9.52%	23.81%	19.05%	23.81%	19.05%	0.00%	4.76%
Question9	9.52%	14.29%	14.29%	28.57%	14.29%	9.52%	9.52%
Question10	9.52%	9.52%	9.52%	23.81%	28.57%	14.29%	4.76%
Question11	4.76%	14.29%	23.81%	14.29%	23.81%	14.30%	4.76%
Question12	0.00%	0.00%	28.57%	28.57%	19.05%	19.05%	4.76%
Question13	4.76%	9.52%	4.76%	19.05%	19.05%	33.33%	9.52%
Question14	0.00%	9.52%	19.05%	33.33%	19.05%	14.29%	4.76%
Question15	0.00%	9.52%	14.29%	23.81%	28.57%	14.29%	9.52%
Question16	4.76%	4.76%	19.05%	28.57%	9.52%	23.81%	9.52%
Question17	0.00%	4.76%	19.05%	38.10%	19.05%	14.29%	4.76%
Question18	0.00%	9.52%	0.00%	38.10%	19.05%	28.57%	4.76%
Question19	0.00%	4.76%	33.33%	9.52%	14.29%	28.57%	9.52%
Question20	4.76%	4.76%	4.76%	38.10%	19.05%	23.81%	4.76%
Question21	4.76%	14.29%	28.57%	28.57%	4.76%	14.29%	4.76%
Question22	0.00%	23.81%	23.81%	19.05%	23.81%	4.76%	4.76%
Question23	4.76%	28.57%	4.76%	23.81%	19.05%	14.29%	4.76%
Question24	14.29%	38.10%	23.81%	19.05%	0.00%	0.00%	4.76%
Question25	0.00.%	19.05%	23.81%	9.52%	33.33%	9.52%	4.76%
Question26	14.29%	23.81%	0.00%	33.33%	14.29%	14.29%	0.00%
Question27	0.00%	14.29%	14.29%	14.29%	28.57%	23.81%	4.76%
Question28	33.33%	28.57%	9.52%	14.29%	4.76%	4.76%	4.76%
Question29	4.76%	14.29%	23.81%	38.10%	9.52%	9.52%	0.00%
Question30	10.00%	20.00%	10.00%	30.00%	15.00%	10.00%	5.00%

Graph 1: Presents the data from Table 1 visually

Online Interview

The emotional vocabulary of EFL students was collected using the second questionnaire, which was generated from handouts for training middle and high school students about feelings. This questionnaire has 14 open-ended interview questions (For more details, see Appendix B). The findings of the computations, which were evaluated using the Excel software tool, are shown in Table 2. The number of emotional vocabulary words gathered from participants is indicated in this table. As a result of collecting the information in Table 2, EFL students have been assigned to two groups according to their awareness levels. The first was labeled "less emotional students," while the second was labeled "more emotional students". Table 3 contains the information gathered.

Table 2: The number of emotional vocabularies in EFL students

| Column	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
person1	one	one	one	one	one	one	one	one	one	one	one	one	one	one
person2	five	nine	five	eight	four	five	three	one	four	three	four	four	five	three
person3	two	one	one	one	one	one	one	one	one	one	one	one	one	one
person4	two	two	two	two	two	two	zero	zero	zero	two	two	two	two	two
person5	one	one	zero	one	one	one	one	one	one	one	one	one	three	one
person6	two	three	two	two	two	two	two	two	two	two	two	three	two	two
person7	one	one	zero	one	zero	zero	one	zero	zero	zero	zero	two	zero	one
person8	three	three	three	three	three	three	three	three	three	three	three	three	three	three
person9	two	two	one	one	one	one	one	one	one	one	one	one	one	one
person10	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero
person11	one	zero	one	zero	one	one	zero	zero	one	one	one	zero	one	one
person12	three	one	two	one	two	two	one	zero	zero	one	zero	one	one	one
person13	one	two	two	one	two	two	one	one	one	one	one	two	two	two
person14	two	three	one	two	one	three	two	two	one	two	one	two	two	two
person15	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero
person16	three	three	two	two	two	three	two	four	three	two	three	three	two	four
person17	two	zero	one	one	one	two	one	one	two	one	one	two	one	one
person18	two	one	one	one	one	one	one	one	one	one	one	one	one	one
person19	one	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero	zero
person20	one	one	one	one	one	one	one	one	one	one	one	one	one	one
person21	two	two	one	one	two	two	zero	two	two	zero	two	four	two	three

Table 3: More emotional students vs. less emotional students

Students level of Questions	More Emotional Students	Less Emotional students
self-awareness		
ITEM 1: You just got a good grade on a test	Happy, satisfied, relaxed, joyful, proud, confident, gleeful, delighted, motivated, energetic	Happy, confident, joyful, angry, excited
ITEM 2: You just got a bad grade on a test	Sad, ashamed, stressed, grief, sorry, worried, down, dismal, shameful, depressed, upset, underrated, unhappy, disappointed, disheartened, frustrated, mad, unmotivated, blue, embarrassed	Sad, disappointed, upset, Shameless, frustrated, don't care, confident, feel silly
ITEM 3: Your friend just threw up in the hallway	Worried, stressed, helping, emergency, fear, happy, surprised, nervous, shocked, disgusted, apprehensive, angry, sad, embarrassed, a bit stressed, sympathetic, frustrated	Mad, compassion, I don't know, sad, gross, feel sorry
ITEM 4: You cannot get your friend to understand your point of view	Mad, distressed, swamped, rejected, arguing, discussing, failure, angry, overwhelmed, upset, frustrated, impatient, confused, respectful	Confused, helpless, angry, sad, don't care,
ITEM 5: You hate what you are wearing today	Uneasy, frustrated, uncomfortable, angry, unconfident, bored, shy, sad, still confident, not happy, embarrassed, cross, insecure, less talkative, hateful	Lack of confidence, ashamed, stressed, nothing, indifferent, neutral, sad, unhappy
ITEM 6: You just won a tournament but do not want to brag	Happy, cheerful, relaxed, joyful, calm, honored, proud, excited, feeling gentle and great, humble, energetic, confident, grateful, modest, cool	Peppy, unselfish, confident, joyful, comfort, I don't know, angry
ITEM 7: You think everyone is talking about you	Stressed, curious, uncomfortable, I never think about it!!!!Can't imagine this one, sorry! Shy, anxious, confused, concerned, unhappy, feeling under control, suspicious, upset, insecure, worried, nervous,	Worry, angry, stressed, happy, proud, don't care, anxious
ITEM 8: Your parents will ground you if you do not get an A	Relaxed, can't imagine this, but It's ok, angry, sad, annoyed, confused, disrespected, anxious, worried, scared, stressful, tired, unhappy, uncomfortable, nervous	Pity, stress, obedient, sad, don't care, scared, angry
ITEM 9: You do not feel like talking to anyone today	Blue, dismal, grief, impatient, sleepy, upset, overwhelmed, bored, introverted, relax, unbothered, quiet, calm, feeling down, sad	Nervous, dull, upset, happy, sad, shameful
ITEM 10: You did a great job, but no one notices	Careless, indifference, patient, angry, frustrated, happy, confused, satisfied, poker face, disappointed, upset, more energetic, chattier	Depressed, despair, satisfaction, happy, joyful, hopeless, angry
ITEM 11: You have no feelings and do not care about anything	Relax, easy, mindful, careless, disappointed, stressful, overwhelmed, tired, serene, unbothered, tranquil, I do not understand, selfish, depressed, care free, cold, short temper, insouciance, let go of everything	Careless, relax, sad, joyful, comfort, free
ITEM12: You know you make people laugh a lot	Happy, friendly, sociable, enjoying, smiling, fulfilled, relaxed, successful, feeling awesome, fun, joyful, cool, useful, humorous	Cut, bored, proud, happy, neutral, joyful
ITEM 13: You found a present for you on your desk	Surprised, joyful, happy, shocked, curious, hopeful, energetic, amazed, wondering, shocked, inquisitive, elated, excited, mysterious, strange	Glad, surprise, curious, happy, pleasure, excited
ITEM 14: You are eating your favorite food	Enjoying, satisfied, cheerful, happy, joyful, fascinated, explosion, amazing, delighted, energetic, excited, grateful, relaxed, good mood	Joyful, grateful, pleasure, happy, enjoy

Comparison

The fact that students' emotional vocabularies were not based on Gloria Wilcox's 1982 feeling wheel was discovered by comparing data from Tables 2 and 3 with Graph 2 of Gloria Wilcox's 1982 feeling wheel.
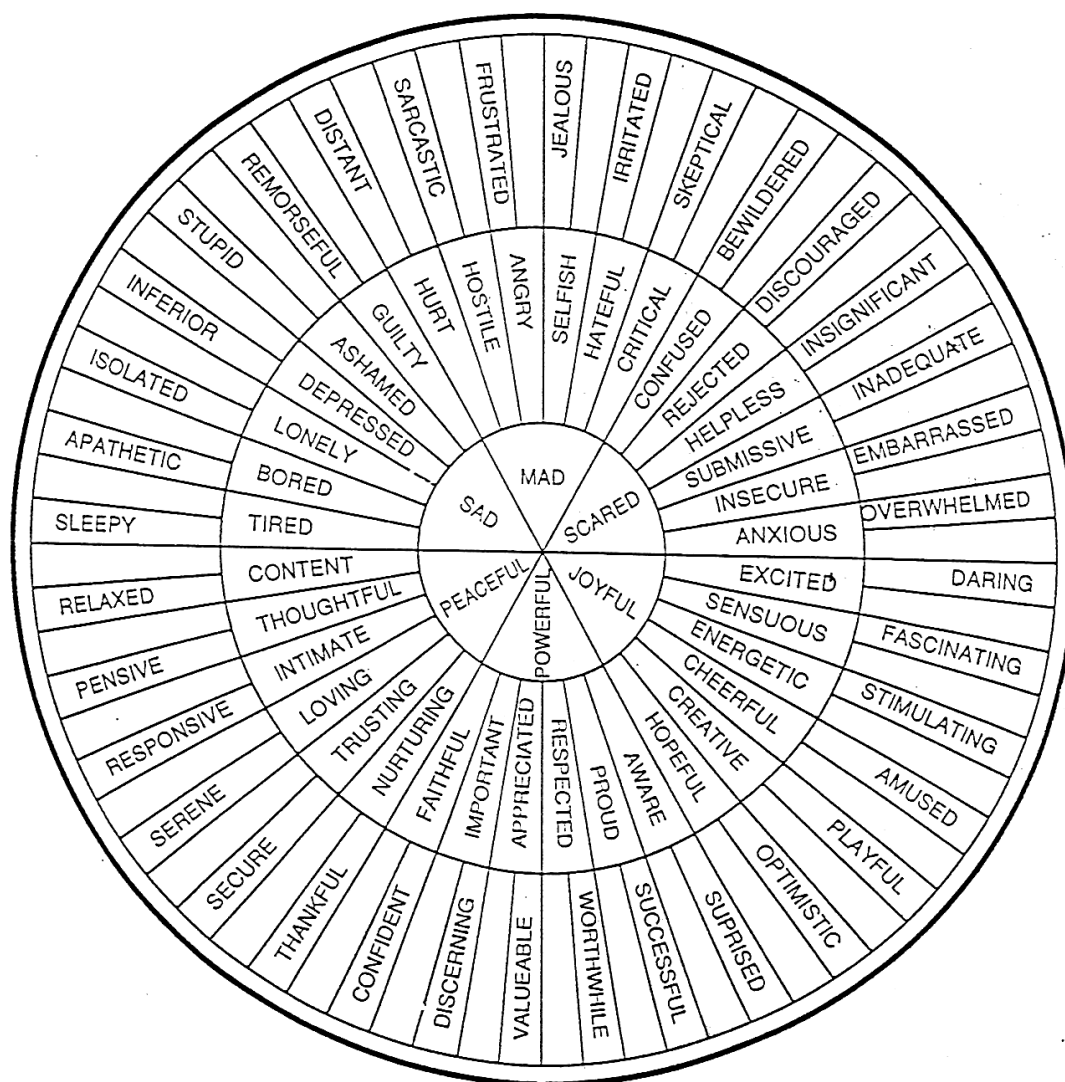
Graph 2: Gloria Wilcox Feeling Wheel Tool (1982)

5. DISCUSSION

To answer the first research question, we used a retroactive ex-post facto design to determine how independent variables affected the study's dependent variables. The findings of this study showed that independent variables such as culture and society played an important role in shaping and changing the emotional vocabulary of English language students in advanced education because the independent variable X commands the dependent variable Y, and the process of storing emotional vocabulary in English language learners must be controlled. Therefore, a change in X causes a change in Y. To check the claim, by selecting and comparing two students from the tables in the results section, we found that although we were able to measure the number of students' emotional words that were influenced by an independent variable called culture, these independent

variables affected the emotional memory of EFL students. The number of emotional words students use at high English levels is still unknown. In the second question, we examined the relationship between emotional preservation and the tool known as the "emotional wheel." The mediating variable (Z) between X and Y was Daniel Siegel's fashion and emotion wheel, which played an important role, and EFL students did not know how to use it, although it was needed. In summary, it was found that the relationship between the emotional words of English language students and the emotion wheel tool was blurred because the students were not aware of the scope of the words of this tool, and accordingly, most of the English language students were immature in their emotions. We got our answer from the third research question, too. Based on current research, the "name it to tame it" method for emotional regulation, in conjunction with the emotion wheel tool, has the potential to enhance the emotional proficiency of English as a Foreign Language (EFL) learners, which is in line with Smith (2020). According to Smith (2020), these methods allow students to effectively identify and articulate their emotions, which is crucial for emotional intelligence and language proficiency. Furthermore, the findings support Johnson et al.'s (2019), who demonstrated that integrating emotional regulation techniques into language learning positively impacts students' emotional awareness and language proficiency.

6. CONCLUSIONS

One major objective of the study was to see how EFL adult students cope with emotional situations by mentally naming emotions from their emotional repertoire. However, determining when such storage occurs and what external circumstances influence the frequency of emotional phrases poses a hurdle. Adult emotional maturity studies have been conducted on a regular basis. They came to the same conclusion as Subbarayan and Visvanathan (2011), which is that pupils' emotional maturity is unaffected by gender, geography, or household size. Through a scan of numerous sources, it was discovered that no thorough study of EFL students had been conducted. The results of this explanatory sequential mixed-methods research showed that learners were emotionally immature and that context had a significant impact on the formation and modification of each individual's emotional lexicon, particularly for EFL students in colleges and schools. It is right to infer that emotion management is substantially more crucial in EFL adult students than in children because a large portion of college students are emotionally unstable. Adults are recommended to be more concerned about this issue. Since they are expected to fill a variety of roles in society after finishing their education, the uncertain emotional maturity may be caused by a variety of factors, including competition, a job, and increasing stress from a changing environment. Due to their lack of competence in these areas, the adult EFL academics in this study chose to concentrate on the cognitive rather than the emotional aspects of learning. It is true that young adults find it challenging to focus on internal aspects of their growth.

Even though all English instructors at educational establishments employ the strategies described in order to produce a joyful learning environment, they are recommended for fostering close bonds among students, resolving disruptive behaviors through discussion, and assisting children with emotional management. In order to obtain a more precise portrayal of student reactions, lecture room observations must be included as a component in subsequent research initiatives. Despite those challenges, the total significance of emotional experiences in a person's life necessitates a basic understanding of emotions. In adulthood, emotional growth reaches its pinnacle. During this period, almost everyone reaches emotional maturity. The study can assist university postgraduates and instructors by motivating them to pay special attention to their emotional development and informing them about the importance of emotional maturity in today's fast-changing world. As a result, emotional adulthood topics in higher education are suggested to be evaluated and preserved.

Data Availability Statement

Upon request, the corresponding author will make data available to support the findings of this study. The statistics are not accessible to the general public since they include data that may compromise the privacy of research participants.

References

Activity: Plutchik's wheel of emotions. (n.d.). Healthy-Project.Eu. Retrieved May 31, 2023, from http://www.healthy-project.eu/en/6/6-4.Exercise.pdf

Aragão, R. (2011). Beliefs and emotions in foreign language learning. *System*, 39(3), 302–313. https://doi.org/10.1016/j.system.2011.07.003.

Asle Fathali, B., & Najipoor Ostadi, S. (2013). A study of the relationship between emotional intelligence and self-esteem with social skills. *Journal of Instruction and Evaluation*, 6(23), 123–136. https://www.sid.ir/en/journal/ViewPaper.aspx?id=383980.

Barrett, L. F. (2006). Solving the emotion paradox: Categorization and the experience of emotion. *Personality and Social Psychology Review*, 10(1), 20–46. https://doi.org/10.1207/s15327957pspr1001_2

Barrett, L. F., Lindquist, K. A., & Gendron, M. (2007). Language as context for the perception of emotion. *Trends in Cognitive Sciences*, 11(8), 327–332. https://doi.org/10.1016/j.tics.2007.06.003

Baron-Cohen, S. (2000). The evolution of a theory of mind. In *The descent of mind: Psychological perspectives on hominid evolution* (pp. 261–277). Oxford University Press.

Becker, B. E., & Luthar, S. S. (2002). Social-emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Educational Psychologist*, 37(4), 197–214. https://doi.org/10.1207/S15326985EP3704_1

Bisquerra, R. (2009). *Psicopedagogía de las emociones*. Síntesis.

Butler, E. A., Lee, T. L., & Gross, J. J. (2007). Emotion regulation and culture: Are the social consequences of emotion suppression culture-specific? *Emotion*, 7(1), 30–48. https://doi.org/10.1037/1528-3542.7.1.30

Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science*, 591(1), 98–124. https://doi.org/10.1177/0002716203260102

Cheung, H., Chung, K. K. H., Wong, S. W. L., McBride-Chang, C., Penney, T. B., & Ho, C. S.-H. (2010). Speech perception, metalinguistic awareness, reading, and vocabulary in Chinese–English bilingual children. *Journal of Educational Psychology*, 102(2), 367–380. https://doi.org/10.1037/a0017850

Clore, G. L., & Ortony, A. (2013). Psychological construction in the OCC model of emotion. *Emotion Review*, 5(4), 335–343. https://doi.org/10.1177/1754073913489751

Cunningham, W. A., & Brosch, T. (2012). Motivational salience: Amygdala tuning from traits, needs, values, and goals. *Current Directions in Psychological Science*, 21(1), 54–59. https://doi.org/10.1177/0963721411430832

Devaney, E., O'Brien, M. U., Resnik, H., Keister, S., & Weissberg, R. P. (2006). *Sustainable schoolwide social and emotional learning (SEL): Implementation guide and toolkit*. Collaborative for Academic, Social, and Emotional Learning.

Dolev, N., & Leshem, S. (2017). Developing emotional intelligence competence among teachers. *Teacher Development*, 21(1), 21–39. https://doi.org/10.1080/13664530.2016.1207093

Educating minds and hearts: Social emotional learning and the passage into adolescence. (1999). *Choice*, 37(02), 37-1055-37–1055. https://doi.org/10.5860/choice.37-1055

Eid, M., & Diener, E. (2001). Norms for experiencing emotions in different cultures: Inter- and intranational differences. *Journal of Personality and Social Psychology*, 81(5), 869–885. https://doi.org/10.1037/0022-3514.81.5.869

Enns, A., Eldridge, G. D., Montgomery, C., & Gonzalez, V. M. (2018). Perceived stress, coping strategies, and emotional intelligence: A cross-sectional study of university students in helping disciplines. *Nurse Education Today*, 68, 226–231. https://doi.org/10.1016/j.nedt.2018.06.012

Ferré, P., García, T., Fraga, I., Sánchez-Casas, R., & Molero, M. (2010). Memory for emotional words in bilinguals: Do words have the same emotional intensity in the first and in the second language? *Cognition & Emotion*, 24(5), 760–785. https://doi.org/10.1080/02699930902985779

Ferré, P., Sánchez-Casas, R., & Fraga, I. (2013). Memory for emotional words in the first and the second language: Effects of the encoding task. *Bilingualism: Language and Cognition*, 16(3), 495–507. https://doi.org/10.1017/s1366728912000314

Frederickson, N., Petrides, K. V., & Simmonds, E. (2012). Trait emotional intelligence as a predictor of socioemotional outcomes in early adolescence. *Personality and Individual Differences*, 52(3), 323–328. https://doi.org/10.1016/j.paid.2011.10.034

Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, 58(6–7), 466–474. https://doi.org/10.1037/0003-066x.58.6-7.466

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271–299. https://doi.org/10.1037/1089-2680.2.3.271

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1–26. https://doi.org/10.1080/1047840x.2014.940781

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3–24). Guilford Press.

Hagenauer, G., & Volet, S. (2014). 'I don't think I could, you know, just teach without any emotion': Exploring the nature and origin of university teachers' emotions. *Research Papers in Education*, 29(2), 240–262. https://doi.org/10.1080/02671522.2012.754929

Ishak, W., Nikravesh, R., Lederer, S., Perry, R., Ogunyemi, D., & Bernstein, C. (2013). Burnout in medical students: A systematic review. *The Clinical Teacher*, 10(4), 242–245. https://doi.org/10.1111/tct.12014

Johnson, T. (2019). Integrating emotional regulation techniques into language learning. *TESOL Quarterly*, 25(2), 112-130.

Koole, S. L., & Rothermund, K. (2011). "I feel better but I don't know why": The psychology of implicit emotion regulation. *Cognition & Emotion*, 25(3), 389–399. https://doi.org/10.1080/02699931.2010.550505

Kwon, H., Yoon, K. L., Joormann, J., & Kwon, J.-H. (2013). Cultural and gender differences in emotion regulation: Relation to depression. *Cognition & Emotion*, 27(5), 769–782. https://doi.org/10.1080/02699931.2013.792244

Levenson, R. W. (2003). Blood, sweat, and fears: The autonomic architecture of emotion. *Annals of the New York Academy of Sciences*, 1000, 348–366. https://doi.org/10.1196/annals.1280.016

Lieberman, M. D., Eisenberger, N. I., Crockett, M. J., Tom, S. M., Pfeifer, J. H., & Way, B. M. (2007). Putting feelings into words: Affect labeling disrupts amygdala activity in response to affective stimuli. *Psychological Science*, 18(5), 421–428. https://doi.org/10.1111/j.1467-9280.2007.01916.x

Lieberman, M. D., Inagaki, T. K., Tabibnia, G., & Crockett, M. J. (2011). Subjective responses to emotional stimuli during labeling, reappraisal, and distraction. *Emotion*, 11(3), 468–480. https://doi.org/10.1037/a0023503

Lopez, M. G. M., & Gardenas, M. A. F. (2014). Emotions and their effects in a language learning Mexican context. *System*, 42, 298–307.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. https://doi.org/10.1037/0033-295x.98.2.224

Mauss, I. B., Levenson, R. W., McCarter, L., Wilhelm, F. H., & Gross, J. J. (2005). The tie that binds? Coherence among emotion experience, behavior, and physiology. *Emotion*, 5(2), 175–190. https://doi.org/10.1037/1528-3542.5.2.175

Ortiz Sobrino, M. Á., & Rodríguez Barba, D. (2011). El perfil de entrada de los alumnos de grado en las facultades de comunicación de las universidades de Madrid: El caso de la Summer Media School de la fundación FIDES/UFV. *Vivat Academia*, 0(114), 243–276. https://doi.org/10.15178/va.2011.114.243-276.

Petrides, K. V. (2009). Psychometric properties of the trait emotional intelligence questionnaire (TEIQue). In *Assessing emotional intelligence* (pp. 85–101). Springer US.

Petrides, K. V. (2016). Four thoughts on trait emotional intelligence. *Emotion Review*, 8(4), 345–345. https://doi.org/10.1177/1754073916650504

Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, 15(6), 425-448.

Petrides, K. V., & Furnham, A. (2003). Trait emotional intelligence: Behavioral validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality*, 17(1), 39-57.

Postareff, L., & Lindblom-Ylänne, S. (2011). Emotions and confidence within teaching in higher education. *Studies in Higher Education*, 36(7), 799–813. https://doi.org/10.1080/03075079.2010.483279

Siegel, D., & Bryson, T. (2012). Two brains are better than one. In *The whole-brain child: 12 revolutionary strategies to nurture your child's developing mind*. Bantam Books Trade Paperbacks.

Smith, A. (2020). The role of emotional regulation in language learning. *Journal of Applied Linguistics*, 15(3), 45-62.

Subbarayan, K., & Visvanathan, G. (2011). A study on emotional maturity of college students. *Recent Research in Science and Technology*, 3(1), 153-155. https://updatepublishing.com/journal/index.php/rrst/article/view/558

Suberviola Ovejas, I. (2012). Competencia emocional y rendimiento académico en el alumnado universitario. *Vivat Academia*, 1–17. https://doi.org/10.15178/va.2011.117e.1-17

Torre, J. B., & Lieberman, M. D. (2018). Putting feelings into words: Affect labeling as implicit emotion regulation. *Emotion Review*, 10(2), 116–124. https://doi.org/10.1177/1754073917742706

Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, 90(2), 288–307. https://doi.org/10.1037/0022-3514.90.2.288

Vandervoort, D. J. (2006). The importance of emotional intelligence in higher education. *Current Psychology*, 25(1), 4–7. https://doi.org/10.1007/s12144-006-1011-7

Webb, T. L., Miles, E., & Sheeran, P. (2012). Dealing with feeling: A meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. *Psychological Bulletin*, 138(4), 775–808. https://doi.org/10.1037/a0027600

The Mediating Effect of EFL Teachers' Creativity in Relationship Between Their Reflective Practices and their Professional Development

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Abstract
Teacher professional development (TPD) is a kind of continuing education effort that can strengthen teachers' skills and, in turn, boost students' learning outcomes. Teachers' creativity and reflective practice also have key roles in teachers' daily practice. Therefore, this study aimed to investigate the mediating role of English as a foreign language (EFL) teachers' creativity in the relationship between their reflective practices and their professional development (PD). The participants of the study consisted of 150 Iranian EFL teachers aged between 30 and 41 years old with 1–up to 15 years of teaching experience. Three different questionnaires were used to collect the relevant data. The collected raw data were analyzed with SPSS and Partial Least Squares (PLS) software. The results of statistical analyses, namely Spearman correlation, and semi structural equation modeling (SEM) indicated that there were statistically significant relationships between teachers' reflective practice, teacher's creativity, and their PD. In particular, the results revealed that teachers' creativity can mediate the relationships between teachers' reflective practice and their PD. The obtained results are discussed in the light of the literature. The results also have a number of implications for the main stakeholders including administrators and EFL teachers.

1. INTRODUCTION

Today, second language teaching is considered as a dynamic process that requires the teacher PD in order to overcome the wide range of inevitable social, psychological, and scientific challenges in the current educational context. The PD, in education, refers to teacher training programs, activities, and educational experiences with the aim of training knowledgeable teachers who are able to educate competent students (Christoforidou & Kyriakides, 2021). This context-sensitive process can improve teachers' pedagogical knowledge through different ways such as formal seminars and workshops or informal observations and discussions among colleagues (Sancar et al., 2021). Furthermore, the role of EFL teachers' creativity has been highlighted during the last decades and it is commonly acknowledged that teachers play a critical role in fostering creativity in their students. The concept of reflective practice has also been gaining momentum as

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a beneficial factor in the development of teachers' creativity (LaPrade et al., 2014; Osterman, 1990). Dewey (1931) defined the term reflection as "An active, persistent, and careful consideration of a belief or supposed form of knowledge, of the grounds that support that knowledge, and the further conclusions to which that knowledge leads" (p.9). To put it another way, it is the conscious consideration of teachers that allows them to take charge of their own learning through the evaluation and application of their information to reach a decision regarding an issue or circumstance. When engaging in reflective practice, teachers monitor how students respond and perform when dealing with a specific theory or method in the classroom. They then compile all experiences to adapt or alter the theory that was chosen (Hartmann et al., 2021). During the reflection process, teachers should connect educational theory with teaching practice and observe students' reactions to find a suitable theory and/or technique. Reflective practice is an interactive process between instructors and students, and reflective teachers promote reflection as a crucial tool in their classrooms.

Although the importance of the three variables of creativity, PD, and reflection have been discussed in previous studies, the relationship between reflective practice and creativity, creativity and PD, reflective practice and PD, and the mediating role of creativity have received scant attention. As such, a model (see Figure, 1) was proposed.
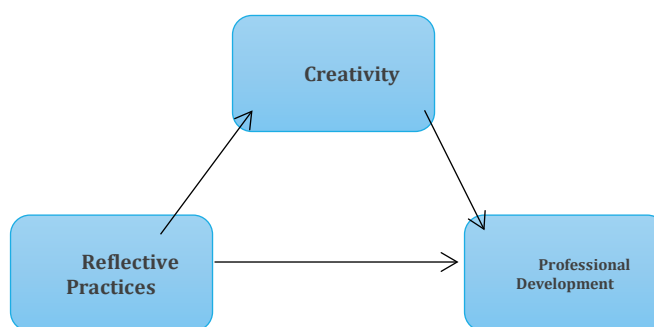
Figure 1: The Conceptual Model

Based on the hypothesized model the following research questions were formulated:

Q1. Is there any significant relationship between EFL teachers' reflective practice and their PD?

Q2. Is there any significant relationship between EFL teachers' reflective practices and their creativity?

Q3. Is there any significant relationship between EFL teachers' creativity and their PD?

Q4. Does EFL teachers' creativity mediate the relationship between their reflective practice and PD?

2. LITERATURE REVIEW

Teacher Professional Development

Based on the researchers' experience traditional approaches to PD for EFL teachers in Iran usually focus on short-term workshops and conferences with a supervisor lecturing in the front. In other words, teachers' development is controlled by external experts, and EFL teachers have a passive role in their PD activities, which are conducted regardless of EFL teachers' personal needs and wants. Traditional TPD programs ignore interaction among teachers, and teachers are only given access to instructional strategies and approaches in a monologic, top-down way by this

chosen expert. That is why there is always a need for teacher PD in the teaching context to overcome educational, sociocultural, and technological challenges.

Teacher PD, generally, refers to the continuous dynamic formal or informal processes and educational programs that help teachers improve their pedagogical skills (Li, 2022). Therefore, in the present study, teacher PD is defined as an ongoing dynamic learning process in which teachers, as active agents, are involved with lifelong attempts to discover different teaching approaches that can meet the learning needs of their students. Another important point about PD in the present study is that PD makes teachers more responsible for reflecting on their teaching practices to learn how to learn by conducting research individually or collaboratively.

Novice teachers face challenges in the first year of their teaching. They experience inconsistencies between what they learn about teaching training and what happens in the real class. These challenges may be related to various reasons, such as classroom management, lesson planning, the level of education, lesson delivery, classification management, and the development of identity. There are challenges and incompatibilities during the first years of teaching. In this regard, the importance of EFL teachers' PD as a continuous dynamic process that enables teachers to improve their pedagogical skills has been highlighted during the last few years. Indeed, teachers' PD and well-being have been considered as necessary factors in increasing the quality of teaching and learning (Gore & Zeichner, 1991). The significance of EFL teachers' PD has motivated teacher educators to make use of various formal and informal self-initiated teacher PD programs to foster teachers' knowledge in teacher education programs.

One aspect of teacher quality that is impacted by reflective practice is his or her PD, which is often defined as how a teacher learns particular knowledge and a set of skills within a specific context of a situation (Koellner & Jacobs, 2015). When teachers reflect on their teaching practices, their awareness of their teaching increases, and they can then unlearn the ineffective teaching methods, which may have undesirable effects on students' learning experience (Ciampa & Gallagher, 2015). Meierdirk (2017) has stated that pre-service teachers usually use reflection in order to improve their teaching in areas of classroom activities, lesson planning, behavioral management, and performance indicators. Alger (2006) gives an example of how reflective practice impacts pre-service teachers' classroom teaching and enhances the repertoire of their strategies when dealing with problems. After engaging in reflective practice, pre-service teachers in Alger's study were able to move away from a teacher-centered classroom to a more student-centered one. Generally, reflective practice allows pre-service and in-service teachers to stop for a moment to take a good look at their past teaching experiences. Through the means of self-observation, self-analysis, and self-evaluation, they can explore their experiences, discover "the truth" about themselves, and improve their professional life. In another research, Malmir and Mohammadi (2018) examined the effect of reflective teaching on teachers' professional success and the power of self-efficacy, and reflective teaching was reported as a predictor of teachers' professional success.

Teacher creativity

Creativity plays a crucial role in EFL teachers' development and learners' academic achievement and academic motivation (Xerri & Vassallo, 2016). Creativity is defined as the utilization of imaginative approaches to recombine familiar elements into new forms (Nunan, 2013). In the teaching context, this process makes learning more interesting (Craft, 2004). Second language teachers' creativity can be defined as their EFL/ESL ability to provide EFL/ESL learners with opportunities to use the target language in innovative ways (Ma, 2022). Although theoretically teacher creativity is defined as the interaction among teachers' aptitude, imagination, innovative ideas, and environment to create a novel concept, the present study aimed to consider

EFL teachers' creativity from a more practical point of view as teachers' use of innovative methods, and techniques to use their full potential as reflective educators to improve their own autonomy, thoughtfulness and insight and their students' learning outcomes (Ghanizadeh & Jahedizadeh, 2016).

Jónsdóttir (2017) distinguishes between the two overlapping concepts of teaching for creativity and teaching creatively. While the former deals with applying teaching styles that center around the amelioration of creative thinking in learners, the latter refers to the application of innovative techniques and approaches with the aim of producing more efficacious and fascinating learning. Though these two concepts may appear to be distinct at first sight, there is a need to integrate them into our instructional endeavors to bring about more creative learning.

Creativity is a crucial characteristic of a professional EFL teacher, and it can be achieved by moving away from traditional pedagogy (Han & Abdrahim, 2023). The related studies show that teachers' creativity, which is necessary for EFL teachers' PD and EFL learners' language competence, is the result of the interaction between EFL teachers' personal features and the features of social context and teaching environment (Han & Abdrahim, 2023). The traditional approaches to PD, which are typically arranged by external agents and administrators, cannot meet these contextual needs and situational factors (Kırkgöz, 2013). Teachers' creativity can be enhanced through interactive workshops and seminars instead of traditional one-shot workshops in which EFL teachers are isolated from the mainstream of practices (Soodmand Afshar & Ghasemi, 2018). EFL teachers' participation in PD programs as an active member, which can increase their creativity, is a vital factor that has not been investigated sufficiently. Although, teachers have a limited perception and understanding of creativity, their creativity in the classroom may facilitate students' creative potential and promote changes in EFL teachers' knowledge and incorporation of new skills (Hosseini, 2010). Several studies (e.g., Czaja-Chudyba et al., 2018; Hosseini & Watt, 2010; Mishra et al., 2015; Mohammadifar & Tabatabaee-Yazdi, 2021; Yeh et al., 2011;) have shown the potential effect of PD programs on facilitating change in the creativity of both teachers and students. Therefore, investigating the various approaches to PD programs in order to increase EFL teachers' creativity is of great importance.

Previous studies on creativity highlight the crucial role played by teachers' creativity in shaping and nurturing students' creativity and independence (Ghonsooly & Raeesi, 2012; Benson, 2006). The theory of experiential language learning (Kolb et al., 1979) underscores the significance of experience and discovery in acquiring a second language. In this context, EFL teachers can enhance students' readiness for discovery learning by providing opportunities to foster creativity and independence. This is particularly essential since language learning relies more on automatic processing cycles than controlled mechanical ones, necessitating the teaching of creative skills and strategies to facilitate experiential discovery-oriented learning. Consequently, learners are encouraged toward continuous independent learning. In this perspective, creativity should not only be seen as a means but also as a crucial objective in the development of foreign language curricula.

Additionally, Razdorskaya (2015), in a study, applied the Reflective and Creative Approach (RCA) to teaching medical students English. In this study, the dialectic relationship of reflection and creativity was probed. This study states that the reflective component is important in a creative educational context and both reflection and creativity are important preconditions for improving the effectiveness of teaching. Creative structures and reflexive structures interact with each other and may overlap in some cases. In conclusion, this study confirmed the expected effects of the approach by identifying the relationship between creativity expression, reflective culture components, and intercultural competence. The comprehensive implementation of RSA means adequate educational support for the creative development of the student's individuality.

Reflection practice

The roots of the term reflection are traced back to John Dewey (1859-1952). He argues that reflection is an essential part of teaching and learning and enables teachers to identify and solve problems (Farrell, 2013). Reflection practice is generally a process of thinking back on the individual's own experiences and activities. It can take place at varying degrees of awareness and modes of reflection which results in varying degrees of effectiveness (Sellheim & Weddle, 2015).

Teachers typically operate on "autopilot" and develop ritualized behaviors; however, through reflective practices, educators can cultivate the habit of reflection enabling them to take informed action. Accordingly, during the last decades, reflective practice has been considered a professional requirement for teaching a second language since it provides opportunities to re-evaluate and re-structure understanding and insight (Ghaye, 1998). Not only does reflection help teachers become better educators, but it also helps students become aware of their learning process. To understand their own responses to problems in the classroom, teachers engage in a constant cycle of self-observation and self-assessment (JozeTajareh & Rashtchi, 2019). Cunningham (2001) states that a key objective of reflective teaching is the ongoing observation and improvement of instructional practices. This objective can assist educators in reviving their classrooms and using the best instructional techniques for the given circumstance. Through reflective techniques, educators can develop new approaches to teaching (Kundu & Bej, 2022).

Teachers' reflective practice as a means of improving teaching activities is essential for both pre-service and in-service teachers. Widyaningrum et al. (2022) examined EFL teachers' critical reflective practice. The participants of the study consist of two in-service teachers, one of whom carries out reflective activities as part of her habits to determine her weaknesses and strengths, but for the other participant, only problematic aspects, such as learning materials or managing the classroom atmosphere were the focus of reflection. They collected data using a narrative questionnaire, which was analyzed using appraisal theory. Based on the findings both participants agreed that the reflective practice provides benefits to their PD and learning process. Also, both participants stated that consistent and continuous reflective practices are the key to maximizing the positive impact of reflection.

In a study on teachers' reflective practice, Cadiz (2021) investigated how pre-service teachers plan, design, and evaluate their teaching strategies. To do so, 103 pre-service teachers were selected as the sample of the study, and survey questionnaires that assessed pre-service reflective practice and beliefs about their teaching practice were employed. The results highlighted the significance of adding reflective practice skills to teacher education programs. Griggs et al. (2018) investigated whether the development of reflective practice skills on a professional course influences the extent to which reflection becomes a part of their subsequent professional practice. The findings support the importance of teaching reflective practice in developing professional practice. They recommend varied and flexible strategies for teaching reflective techniques, introducing written and oral techniques, and individual and social reflection. Malmir and Mohammadi (2018) in their study examined the effect of reflective teaching on teachers' professional success. The results showed that the power of self-efficacy and reflective teaching as predictors of teachers' professional success showed EFL teachers' professional success and development can be predicted by both reflective teaching and self-efficacy. In another study, Cadiz (2021) introduced reflective practice as a means to see how pre-service teachers plan, design, and evaluate their teaching strategies. The results of this study highlight the significance of adding reflective practice skills to teacher education programs. Similarly, Pinnegar and Lay (2023) explored the effect of reflection on teacher and teacher-educator development. The findings revealed that reflective practices are important in teacher development. They found that a

preservice teacher's strength increases with her level of reflection. In the same vein, Habtamu and Belay (2023) investigated the extent to which university EFL instructors view reflection practice and the extent their perspectives affected their reflective teaching. The findings showed that the teachers have an acceptable theoretical understanding of the basic concepts of reflection in teaching. Scholars seek to show that reflective practice must be taught in a selective, deliberate, and comprehensible manner (Gudeta, 2022).

3. METHOD

Design

To verify the research hypotheses, a quantitative correlational design, and SEM were utilized in the present study. We employed descriptive statistics to summarize sample characteristics, and inferential statistics to analyze relationships between the variables.

Participants

A total of 150 Iranian EFL teachers (which consists of 72 males, and 78 females) who teach general English in private language schools and high schools in various provinces of Iran were enrolled in this study. The teachers had varying levels of experience (4 to 12). Their educational degrees were M.A. (68 %), BA (27%), and Ph.D. (5%). The researchers used convenience sampling to select the participants for the study and assured them that their participation would be voluntary and anonymous. They were also told that they had the right to withdraw from the study anytime they wished.

Instruments

In the present study, the following instruments were employed.

Teaching Reflection Inventory

We employed the English language teaching reflection scale developed by Akbari et al. (2010). There are 29 items with five subscales namely practical reflection, cognitive reflection, affective reflection, metacognitive reflection, and critical reflection in the instrument. The questionnaire makes use of a 5-point Likert scale ranging from "never" to "always". The first subscale, practical reflection, consists of six items and involves activities such as sharing teaching-related issues with colleagues, observing other teachers' classes, or maintaining reflective journals to improve instruction. The second subscale, cognitive reflection, consists of six items and pertains to intentional efforts made by teachers to participate in PD by reading academic journals. The third subscale, affective reflection, comprises three items and focuses on teachers' endeavors to understand their students' backgrounds and solicit their opinions about different teaching tasks. The fourth subscale, metacognitive reflection, includes seven items and encompasses teachers' beliefs about teaching, critical evaluation of their performance, and interpretations of their behavior. Finally, the fifth subscale, critical reflection, has seven items and concerns teachers' awareness of socio-political factors affecting teaching and their impact on the classroom context. The reliability of the questionnaire computed using Cronbach's coefficient alpha was reported to be 0.90.

Teacher Creativity Scale

Based on the taxonomy and guidelines suggested by Rhodes (1961) and Torrance (1974) together with the CFT index. Rhodes (1961) and Torrance (1974) reviewed numerous scholarly papers and identified contributing factors. They constructed the current scale using a simple procedure involving two steps: 1) Designing the test and 2) validation.

The researchers developed a questionnaire consisting of 62 items on 7 Likert-type dimensions and 5 scales. The dimensions included originality and elaboration, fluency and flexibility, person (teacher), press (environment) and materials, motivation, independent learning (autonomy), and brainstorming. At least seven items were developed for each dimension. The reliability of the dimensions showed that Cronbach's alpha coefficient of this questionnaire was higher than 0.9 for each of the dimensions, which indicates a high level of reliability for this measurement tool.

Professional Development Inventory

To explore the Iranian EFL teachers' current PD, Soodmand Afshar et al. (2018) developed a PD scale, and the levels of reliability and validity of the scale were found to be satisfactory. There are four subscales in the scale, and the third section of the questionnaire consists of 35 items using a 4-point Likert scale that included "not at all" to " Perfectly well. " The subscales include a) PD activity preferences, b) potential benefits of PD activities, c) actual benefits of PD activities, d) affective contributions of PD, and e) practical contributions of PD. The scale has a high-reliability index ($\alpha=0.91$) that indicates that it accurately measures the teachers' proficiency in various aspects of teaching.

Procedure

To recruit the required data, the researchers first gathered the target sampling through convenience sampling. Then they assured the participants about the anonymity and confidentiality of their personal information. Consequently, via email and accessible social networks, 150 questionnaires were distributed among the participants. First, 150 questionnaires were distributed via email attachment. Then the data was fed into SPSS 24. First, to gauge the normality of the data distribution, we used the Kolmogorov-Smirnov and Shapiro-Wilk test. Additionally, this research conducted Cronbach's alpha tests to determine if the responses from participants on the three questionnaires exhibited acceptable levels of internal consistency. These tests helped us to evaluate the reliability of our data rigorously. After that, the relationship between variables was investigated by conducting Spearman product-moment correlations. To evaluate whether the proposed conceptual model is suitable, this research used goodness-of-fit measures in a SEM analysis. To determine the statistical significance of indirect associations, this research employed a bootstrapping procedure, which is a data resampling technique that establishes confidence intervals. This method allows us to test the significance of indirect associations with greater certainty.

Data Analysis

SPSS statistic program and Smart PLS Software were used to evaluate the data. To analyze the results, in this section, the researchers sought if EFL teachers' creativity mediates the relationship between reflective practice and PD. The validity, reliability, normality, and descriptive statistics were used in this study and to answer all the research questions, the researchers used the PLS method.

4. RESULTS

Preliminary Analyses: The evaluation of construct validity and reliability

Item loadings, Cronbach's alpha (α), composite reliability (CR), rho, and average variance extracted (AVE) were used to evaluate construct validity. Internal reliability (CR and α) and convergent validity (AVE) were assessed for each construct. According to Fornell and Larcker (1981), all factor loadings should be greater than 0.7. CR and α should be greater than 0.70 and AVE should be greater than 0.5 (Fornell & Larcker, 1981). Table 1 illustrates the findings of the

validity and reliability tests. The factor loadings of all constructs were greater than 0.7, α and CR greater than 0.7, and AVE values greater than 0.5. Therefore, both reliability and construct validity were recognized.

Table 1: Evaluation of Construct Validity and Reliability.

	Scales	Loadings	Mean	SD	α	CR	AVE
Reflective Practice	R1	0.789	4.154	0.408	0.859	0.882	0.600
	R2	0.764					
	R3	0.807					
	R4	0.765					
	R5	0.749					
Creativity	C1	0.863	4.432	0.501	0.967	0.924	0.637
	C2	0.835					
	C3	0.834					
	C4	0.831					
	C5	0.816					
	C6	0.615					
	C7	0.768					
Professional Development	P1	0.907	3.366	0.379	0.933	0.901	0.753
	P2	0.869					
	P3	0.836					

5. THE EVALUATION OF THE STRUCTURAL MODEL

The factors used to verify the research hypothesis of this study were the evaluation of the direction, power, and significance level related to the path coefficients (betas). Leguina (2015) and Hair et al. (2014) state that the lowest individual R^2 should be 0.10 (10%) greater than the lowest default. We used three criteria, namely, determination coefficient (R^2), effect size (F^2), and prediction power coefficient (Q^2; Stone- Geisser criterion), to investigate the relationships between latent variables. The R^2 criterion indicates the impact of the independent variable on the dependent variable. In addition, three values of 0.19, 0.33, and 0.67 indicate low, medium, and high R^2 levels, respectively. The effect size (F^2) allows us to estimate the contribution of an exogenous construct to its endogenous potential value. Values of 0.02 to 0.35 are considered mild, moderate, and strong, respectively, based on this criterion (Hair et al., 2014). The F^2 values for the exogenous constructs in this study were: Creativity = 0.214 and Educational Reflection Inventory = 0.085. Q^2 evaluates the predictive power of the model (Stone-Geisser criterion). The three values of 0.02, 0.15, and 0.35 represent low, medium, and high levels, respectively, for the second quarter. Table 2 shows the R^2 and Q^2 values for the research model.

Table 2: Results of R^2 and Q^2 for Endogenous Constructs.

	Creativity	Professional Development
R2	0.370	0.418
Q2	0.234	0.315

Table 3: Correlation Between Exogenous and Endogenous Variables

	Reflective Practice	Professional Development
Reflective Practice	1	0.646 **
Professional Development		1

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

The results of Table 4 indicated that the relationship between independent and dependent variables was significant and moderate.

Table 4: Examination of the Path Coefficient of the Relationship.

	Relations	Original Sample (β)	Standard Deviation (STDEV)	T-Statistics (|β/STDEV|)	P-Values	Sign. level	Decision
H2	Reflective Practice -> Professional Development	0.280	0.101	2.770	0.006	****	Supported

The two endogenous variables were 0.370 and 0.418. Furthermore, the Q2 values of 0.234 and 0.315 suggest that this model has a high predictive power. Eventually, the standardized root mean square residual (SRMR) is defined as the difference between the constant root of the observed correlation and the predicted correlation matrix, according to Sathiyavany and Shivany (2018, p. 7). It should be noted that acceptable values are less than 0.10 (Henseler et al., 2015). The SRMR (estimated and saturated) value of this model was 0.077, NFI = 0.820, x2/df = 244.932/87 = 2.81, indicating a good model fit.

The first research question explored if there is a significant relationship between EFL teachers' reflective practice and their professional development. A Spearman Correlation test and SEM method were performed. The results are shown in Tables 3 and Table 4.

Table 3 indicates that the correlation between exogenous and endogenous variables is higher than mediate. We used Bootstrap T-statistics to explore the significance of the relationship. Table 4 indicates the path coefficient between the latent variables, the second hypothesis, and the bootstrap T-statistics. Since the T-statistic was more than 1.65, the hypothesis was accepted.

The results of Table 4 indicated that while the hypothesis was confirmed, the effect size was evaluated by the beta coefficient. The beta coefficient is a number between 0 and 1, the closer to 1, the higher the impact of the independent variable on the dependent variable. It means that 0.28 of dependent variable changes are estimated by the independent variable.

The second research question inquired whether there is a significant relationship between EFL teachers' reflective practice and their creativity. A Spearman Correlation test and structural equation modeling (SEM) method were performed. The results are shown in Tables 5 and 6.

Table 5 indicates that the correlation between exogenous and endogenous variables is higher than mediate. Bootstrap T-statistics were employed to assess the significance of the relationship. Routes with T-statistics over 1.96 at the 95% confidence level are statistically significant, as Fig. 2 illustrates (Garson, 2016). T-statistics above 1.65, 99% above 2.57, and 99.90% above 3.29 are considered acceptable at the 90% confidence level (Hair et al., 2014). The route coefficient between the first hypothesis, the bootstrap T-statistics, and the latent variables is displayed in Table 6. The hypothesis was approved since the T-statistic was more than 1.65.

Table 5: Correlation Between Exogenous and Endogenous Variables.

	Reflective Practice	Creativity
Reflective Practice	1	0.648 **
Creativity		1

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

The results of Table 5 indicated that the relationship between independent and dependent variables was significant and moderate.

Table 6: Examining the Path Coefficient of the Relationship

	Relations	Original Sample (β)	Standard Deviation (STDEV)	T-Statistics (|β/STDEV|)	P-Values	Sign. level	Decision
H1	Reflective Practice -> Creativity	0.612	0.050	12.280	0.000	****	Supported

The results of Table 6 indicated that while the hypothesis was confirmed, the effect size was evaluated by the beta coefficient. The beta coefficient is a number between 0 and 1, the closer to 1, the higher the effect of the independent variable on the dependent variable. It means that 0.61 of dependent variable changes are estimated by the independent variable.

The third research question sought if there is a significant relationship between EFL teachers' creativity and their professional development. A Spearman Correlation test and SEM method were performed. The results are shown in Tables 7 and 8.

Table 7 indicates that the correlation between exogenous and endogenous variables is higher than mediate. Bootstrap T-statistics were employed to assess the significance of the relationship. The route coefficient between the third hypothesis, the bootstrap T-statistics, and the latent variables is displayed in Table 8. The hypothesis was accepted since the T-statistic was more than 1.65.

The results of Table 7 indicated that the relationship between independent and dependent variables was significant and moderate.

Table 7: Correlation Between Exogenous and Endogenous Variables

	Professional Development	Creativity
Professional Development	1	0.694 **
Creativity		1

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

Table 8: Examine the Path Coefficient of the Relationship

	Relations	Original Sample (β)	Standard Deviation (STDEV)	T-Statistics (|β/STDEV|)	P-Values	Sign. level	Decision
H3	Creativity -> Professional Development	0.443	0.084	5.264	0.000	****	Supported

The results of Table 8 indicated that while the hypothesis was confirmed, the effect size was evaluated by the beta coefficient. The beta coefficient is a number between 0 and 1, the closer to 1, the higher the influence of the independent variable on the dependent variable. It means that 0.44 of dependent variable changes are estimated by the independent variable.

The fourth research question explored if EFL teachers' creativity mediates the relationship between reflective practice and PD. A SEM method was performed. The results are shown in Table 9.

Bootstrap T-statistics was used to examine the mediation effect. Table 9 examines the fourth hypothesis, the bootstrap T-statistics, and shows the mediating variable role (indirect effect). Since the T-statistic was more than 1.65, the hypothesis was accepted.

Table 9: Assessment of Mediator Effects

Relations	Original Sample (β)	Standard Deviation (STDEV)	T-Statistics (|β/STDEV|)	P-Values	Sign. level	Decision
Reflective Practice -> Creativity -> Professional Development	0.271	0.063	4.309	0.000	****	Supported

The results of Table 9 indicated that the mediating role of creativity was significant, which means that the creativity variable has a significant mediating role in the relationship between Reflective Practice and PD.

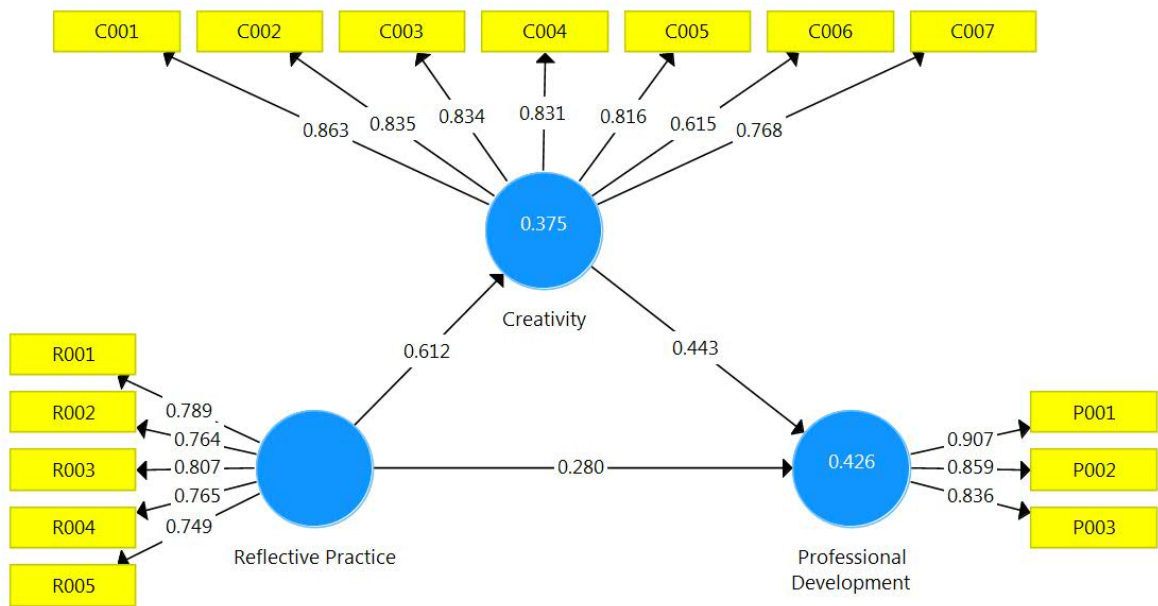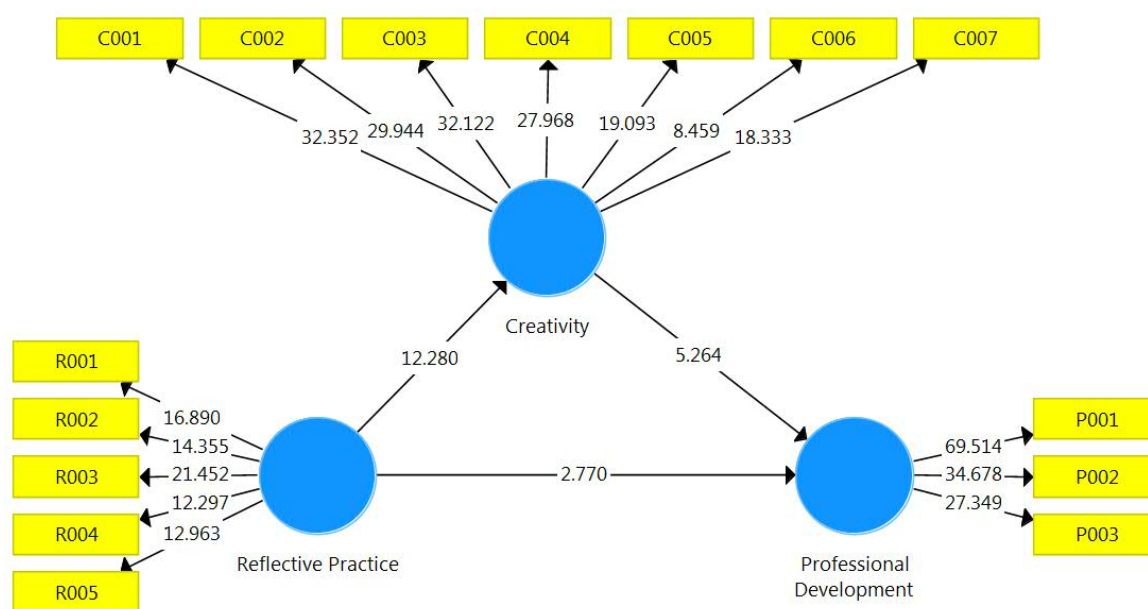Figures 2 and 3 are a schematic view of the research model in standard and meaningful mode.

Fig. 2: Test of the Research Model in Standard Mode

Fig. 3: Test of the Research Model in Significance Mode

6. DISCUSSION AND CONCLUSION

This study made an effort to explore the mediating effect of EFL teachers' creativity in the relationship between their reflective practices and their PD. The first research question explored the relationship between teachers' reflective practices and their PD. Accordingly, it was found that there is a significant relationship between these two variables. As such, the results of this research are in line with the results of Sparks-Langer et al. (1990), Gudeta (2022), and Widyaningrum et al. (2022). This suggests that, as Farrell discusses, through reflective reflection, educators can gain a better grasp of their pedagogy, evaluate their own PD, improve their decision-making abilities, and become more proactive and self-assured in their instruction (Farrell, 2013). These results are also consistent with the findings of the study conducted by Griggs et al. (2018), who explored whether the development of reflective practice skills on a professional course impacts the extent to which reflection becomes a part of their subsequent professional practice. The findings support the importance of teaching reflective practice in developing professional practice. In contrast to Williams and Burden (1997) who highlighted reflection as a means of clarifying underlying conceptions, Ruddock (1991, p. 4) views it as an obligation of the profession.

The results of the present research are also thoroughly supported by the findings of the studies conducted by Malmir and Mohammadi (2018) who examined the effect of reflective teaching on teachers' professional success. The researchers were influenced by the fact that EFL teachers' PD is affected by their self-efficacy and way of teaching. The findings indicated that reflective teaching can predict EFL teachers' professional success and development. Also, Pinnegar and Lay (2023) conducted the effect of reflection on teacher and teacher-educator development. The findings of their study revealed that reflective practices are important in teacher development. They found that a preservice teacher's competence as a teacher increases with her level of reflection. Perhaps, as Miller (1990) notes, when a teacher starts asking questions to understand the processes that are going on around her and starts considering herself as the subject of inquiry,

learning becomes a significant process in teaching. This makes the teacher thoughtful, attentive, and mindful in her practice.

Based on the findings of the second research question there is a significant relationship between EFL teachers' reflective practices and their creativity. Accordingly, the results of this research are in tandem with the results of Razdorskaya (2015), who employed the Reflective and RCA to teach medical students English. As reported, the dialectic relationship of reflection and creativity was probed, and it found that the reflective component is necessary for a creative educational context, and both reflection and creativity are important preconditions for improving the effectiveness of teaching. Furthermore, Lutz et al. (2016) explored how reflective practice can improve students' ability to find creative individual solutions in difficult communication situations. As reported, reflective practice may provide learners with the skills and attitudes to cultivate creativity in practice.

According to the result related to the third research question, there is a significant relationship between EFL teachers' creativity and their PD. In this regard, Han and Abdarahim (2023) emphasized the role of creativity in the PD of teachers in higher education. This study defined the concept of creativity in the field of higher education, identified its meaning, and identified the factors that affect creativity. The obtained results show that teachers' creativity plays an important role in the development of students' skills and in the PD of teachers. Furthermore, Pishghadam et al. (2012) sought the relationship between teachers' creativity and their success in the classroom. The results indicated that a couple of creativity dimensions can significantly predict teacher success. The results of the present study are also in line with the work of Mishra et al. (2015), who found that there is a significant relationship between creativity and teacher PD. There is also a strong connection between the findings of the present study and that of Azamalah and Nam-Hwa (2023), who reported strong support for the effect of creativity on teachers' PD experiences. The obtained results showed that most Korean teachers developed their ideas about teaching through creativity during in-service teacher development programs. In tandem with this study, Han and Abdrahim (2023) examined the impact of teachers' creativity in higher education, and they found that creativity plays a significant role in education. That's why educational institutions around the world are calling on teachers to move away from traditional pedagogical methods to be more creative and apply their creativity to teaching activities.

Regarding the mediating role of the creativity of EFL teachers, the results manifested that the relationship between reflection and PD through creativity was positively significant. To put it simply, creativity plays a mediating role in the relationship between reflective practice and teachers' PD. This means that reflective teachers who are creative possess high degrees of PD. As already stated, to our best knowledge, there were not any studies that have explored the mediating role of creativity in the relationship between teachers' reflective practices and their PD.

The present study discusses the practical consequences of these results for practitioners, researchers, and course/material developers. The results of this study can also help promote the professional success of EFL teachers. In other words, it can be implicated that teachers who were provided reflective in their daily practice may have higher degrees of creativity and this may lead to their better performance in teaching. As such, education programs and PD courses should accordingly foster teachers' reflection and creativity. Enhancing EFL teachers' creativity in teacher training programs can lead to the development of their success.

There were limitations in the study including the small sample size and the difficulty of generalizing the present results based on this limited sample of Iranian EFL teachers to the wider population of EFL teachers. The reliance on self-report data in the assessment of reflective practices, creativity and PD is another major limitation of the present study since the findings could

be susceptible to self-presenting biases. Self-reported teacher data can be better supported using a variety of measurement tools, such as direct observations and semi-structured interviews.

References

Akbari, R., Behzadpoor, F., & Dadvand, B. (2010). Development of English language teaching reflection inventory. *System*, 38(2), 211-227. https://doi.org/10.1016/j.system.2010.03.003

Alger, C. (2006). 'What went well, what didn't go so well': Growth of reflection in pre-service teachers. *Reflective Practice*, 7(3), 287-301. https://doi.org/10.1080/14623940600837327

Azamalah, V., & Nam-Hwa, K. (2023). Teachers' perceptions of creativity and teaching: A comparison of African and south Korean teachers. *Innovation and Education*, 1, 1-22.

Benson, P. (2006). Autonomy in language teaching and learning. *Language Teaching*, 40(1), 21-40. https://doi.org/10.1017/S0261444806003958.

Cadiz, A. P. (2021). Pre-service teachers' reflective practice and their teaching practicum beliefs. *Jurnal Inovatif Ilmu Pendidikan*, 3(2), 105-119.

Christoforidou, M., & Kyriakides, L. (2021). Developing teacher assessment skills: The impact of the dynamic approach to teacher professional development. *Studies in Educational Evaluation*, 70, 1-12. https://doi.org/10.1016/j.stueduc.2021.101051.

Craft, A. (2004). Teaching creatively and teaching for creativity: Distinctions and relationships. *Educational Studies*, 30(1), 77-87. https://doi.org/10.1080/0305569032000159750

Cunningham, F. M. A. (2001). Reflective teaching practice in adult ESL settings. National Center for ESL Literacy Education. http://www.cal.org/caela/esl_resources/digests/reflect.html

Czaja-Chudyba, I., Muchacka-Cymerman, A., & Sajdera, J. (2018). Creativity and professional development of polish and american teachers. In *EDULEARN18 Proceedings* (pp. 9649-9659). IATED.

Dewey, J. (1931). Introduction. In F. M. Alexander (Ed.), *The use of the self* (pp. xiii-xix). Methuen & Co., LTD.

Farrell, T. S. (2013). Critical incident analysis through narrative reflective practice: A case study. *Iranian Journal of Language Teaching Research*, 1(1), 79-89.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

Garson, G. D. (2016). *Partial least squares: Regression and structural equation models*. Statistical Associates Publishing.

Ghanizadeh, A., & Jahedizadeh, S. (2016). EFL teachers' teaching style, creativity, and burnout: A path analysis approach. *Cogent Education*, 3(1), 1151997. https://doi.org/10.1080/2331186X.2016.1151997

Ghaye, T. (1998). *Teaching and learning through critical reflective practice*. David Fulton Publishers.

Ghonsooly, B., & Raeesi, A. (2012). Exploring the relationship between creativity and burnout among Iranian EFL teachers. *International Journal of Linguistics*, 4(3), 121-134. https://doi.org/10.5296/ijl.v4i3.2198

Gore, J. M., & Zeichner, K. M. (1991). Action research and reflective teaching in preservice teacher education: A case study from the United States. *Teaching and Teacher Education*, 7(2), 119-136. https://doi.org/10.1016/0742-051X(91)90022-H.

Griggs, V., Holden, R., Lawless, A., & Rae, J. (2018). From reflective learning to reflective practice: Assessing transfer. *Studies in Higher Education*, 43(7), 1172-1183. https://doi.org/10.1080/03075079.2016.1232382

Gudeta, D. (2022). Professional development through reflective practice: The case of Addis Ababa secondary school EFL in-service teachers. *Cogent Education*, 9(1). https://doi.org/10.1080/2331186X.2022.2030076.

Habtamu, N., & Belay, B. (2023). Reflective teaching in English language classrooms: Perception and practice of English language instructors at Wachemo University. *Education Research International*, 2023, 1-14. https://doi.org/10.1155/2023/6149833

Hair, F. H., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.

Han, W., & Abdrahim, N. A. (2023). The role of teachers' creativity in higher education: A systematic literature review and guidance for future research. *Thinking Skills and Creativity*, 48, 101302. https://doi.org/10.1016/j.tsc.2023.101302

Hartmann, U., Kindlinger, M., & Trempler, K. (2021). Integrating information from multiple texts relates to pre-service teachers' epistemic products for reflective teaching practice. *Teaching and Teacher Education*, 97, 103205. https://doi.org/10.1016/j.tate.2020.103205

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8

Hosseini, A. S., & Watt, A. P. (2010). The effect of a teacher professional development in facilitating students' creativity. *Educational Research and Reviews*, 5(8), 432-438. https://www.academicjournals.org/ERR2

Jónsdóttir, S. R. (2017). Narratives of creativity: How eight teachers on four school levels integrate creativity into teaching and learning. *Thinking Skills and Creativity*, 24, 127-139. https://doi.org/10.1016/j.tsc.2017.02.008

JozeTajareh, M., & Rashtchi, M. (2019). The characteristics of reflective teacher and reflective teaching. *Roshd Foreign Language Teaching Journal*, 34(1), 7-13.

Kırkgoz, Y. (2013). A school-university collaborative action research teacher development programme: A case of six Turkish novice teachers of English. *The Asian EFL Journal Professional Teaching Articles*, 71, 31-56.

Koellner, K., & Jacobs, J. (2015). Distinguishing models of professional development: The case of an adaptive model's impact on teachers' knowledge, instruction, and student achievement. *Journal of Teacher Education*, 66(1), 51-67. https://doi.org/10.1177/0022487114549599

Kolb, D. A., Rubin, I., & McIntyre, J. (1979). *Organizational psychology: An experiential approach*. Prentice-Hall.

Kundu, A., & Bej, T. (2022). Reflective teachers: A probe into 21st century skills among Indian trainee teachers. *International Journal of Teacher Education and Professional Development*, 5(1), 1-20.

LaPrade, K., Gilpatrick, M., & Perkins, D. (2014). Impact of reflective practice on online teaching performance in higher education. *MERLOT Journal of Online Learning and Teaching*, 10(4), 625-639.

Li, X. (2022). A theoretical review on EFL/ESL teachers' professional development: Approaches, applications, and impacts. *Frontiers in Psychology*, 13, 912365. https://doi.org/10.3389/fpsyg.2022.912365

Lutz, G., Roling, G., & Berger, B. (2016). Reflective practice and its role in facilitating creative responses to dilemmas within clinical communication - a qualitative analysis. *BMC Medical Education*, 16, 301. https://doi.org/10.1186/s12909-016-0823-x

Ma, Y. (2022). The effect of teachers' self-efficacy and creativity on English as a foreign language learners' academic achievement. *Frontiers in Psychology*, 13, 872147. https://doi.org/10.3389/fpsyg.2022.872147

Malmir, A., & Mohammadi, P. (2018). Teachers' reflective teaching and self-efficacy as predicators of their professional success: A case of Iranian EFL teachers. *Research in English Language Pedagogy*, 6(1), 117-138.

Meierdirk, C. (2017). Reflections of the student teacher. *Reflective Practice*, 18(1), 23-41. https://doi.org/10.1080/14623943.2016.1230054

Miller, A. (1990). *Banished knowledge: Facing childhood injuries*. Doubleday.

Mishra, P., Henriksen, D., & Mehta, R. (2015). Creativity, digitality, and teacher professional development: Unifying theory, research, and practice. In *Handbook of research on teacher education in the digital age* (pp. 691-722). IGI Global.

Mohammadifar, F., & Tabatabaee-Yazdi, M. (2021). The power of continuing professional development on EFL teachers' creativity. *International Journal of Educational Studies*, 4(1), 1-9. https://doi.org/10.53935/2641-533x.v4il.50

Nunan, D. (Ed.) (2013). *Learner-centered English language education: The selected works of David Nunan*. Routledge.

Osterman, K. F. (1990). Reflective practice: A new agenda for education. *Education and Urban Society*, 22(2), 133-152. https://doi.org/10.1177/0013124590022002002

Pinnegar, S., & Lay, C. D. (2023). Editorial: The role of reflection in teacher and teacher educator development. *Frontiers in Education*, 8, 1225168. https://doi.org/10.3389/feduc.2023.1225168

Pishghadam, R. (2012). Personality and emotional intelligence in teacher burnout. *The Spanish Journal of Psychology*, 15(1), 227-236. https://doi.org/10.5209/rev_sjop.2012.v15.n1.37314.

Pishghadam, R., Baghaei, P., & Shayesteh, S. (2012). Construction and validation of an English language teacher creativity scale (ELT-CS). *Journal of American Science*, 8, 497-508.

Pishghadam, R., Ghorbani Nejad, T., & Shayesteh, S. (2012). Creativity and its relationship with teacher success. *BELT Journal*, 2(3), 204-216.

Razdorskaya, O. (2015). Reflection and creativity: The need for symbiosis. *Procedia - Social and Behavioral Sciences*, 209, 433-438. https://doi.org/10.1016/j.sbspro.2015.11.241

Rhodes, M. (1961). An analysis of creativity. *The Phi Delta Kappan*, 42(7), 305-310. https://www.jstor.org/stable/20342603.

Rudduck, J. (1991). *Innovation and change*. Open University Press.

Sancar, R., Atal, D., & Deryakulu, D. (2021). A new framework for teachers' professional development. *Teaching and Teacher Education*, 101, 103305. https://doi.org/10.1016/j.tate.2021.103305.

Sathiyavany, N., & Shivany, S. (2018). E-Banking service qualities, e-customer satisfaction, and e-loyalty: A conceptual model. *The International Journal of Social Sciences and Humanities Invention*, 5(6), 4808-4819. https://doi.org/10.18535/ijsshi/v5i6.08.

Sellheim, D., & Weddle, M. (2015). Using a collaborative course reflection process to enhance faculty and curriculum development. *College Teaching*, 63(2), 52-61.

Soodmand Afshar, H., & Ghasemi, S. (2018). Developing and validating a model for exploring Iranian EFL teachers' perception of professional development. *Teaching English as a Second Language Quarterly*, 37(3), 169-210. https://doi.org/10.22099/jtls.2019.32064.2629

Sparks-Langer, G. M., Simmons, J. M., Pasch, M., Colton, A., & Starko, A. (1990). Reflective pedagogical thinking: How can we promote it and measure it? *Journal of Teacher Education*, 41(4), 23-32. https://doi.org/10.1177/002248719004100504

Torrance, E. P. (1974). *The Torrance tests of creative thinking-TTCT manual and scoring guide: Verbal test a, figural test*. Ginn.

Widyaningrum, L., Mujiyanto, Y., Yuliasri, I., & Astuti, P. (2022). In-service EFL teachers' critical reflective practice: An appraisal analysis. In *International Conference on Science, Education, and Technology* (Vol. 8, pp. 349-354). https://proceeding.unnes.ac.id/index.php/iset

Williams, M., & Burden, R. L. (1997). *Psychology for language teachers: A social constructivist approach* (Vol. 5). Cambridge University Press.

Xerri, D., & Vassallo, O. (Eds.). (2016). Creativity in ELT: An introduction. In *Creativity in English language teaching*. Progress Press.

Yeh, Y. C., Huang, L. Y., & Yeh, Y. L. (2011). Knowledge management in blended learning: Effects on professional development in creativity instruction. *Computers & Education*, 56(1), 146-156. https://doi.org/10.1016/j.compedu.2010.08.011