Flipped Classroom Model and Its Impact on Iranian EFL Learners' Classroom Anxiety and Listening Performance

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Abstract

The main aim of this paper is to examine the impact of the flipped classroom model (FCM) on Iranian EFL learners' classroom anxiety and listening performance. Therefore, 68 Iranian EFL learners based on their scores on an Oxford Placement Test (OPT) were selected and randomly assigned to an experimental (flipped group) and a control group each including 34 participants. Before starting the treatment, both groups were pretested by a classroom anxiety measure and the listening part of a preliminary English test (PET). The experimental group received the instructional materials and video podcasts through WhatsApp messenger and was asked to study the materials related to the target instruction before attending the class. The control group received the audio files once or twice in the classroom. The last stage was the administration of the classroom anxiety scale and the listening part of the PET to both groups as the posttests. The results of data analysis showed no significant variation between the two groups regarding their anxiety scores. The comparison of the listening scores showed that the experimental group gained higher scores on the listening performance test; it means that the FCM could improve Iranian EFL learners' listening performance.

Keywords: classroom anxiety, flipped classroom model, listening skill, listening performance

Introduction

The process of English language instruction involves four major skills, writing, listening, reading, and speaking, which should be mastered by learners. Moreover, among all these skills, listening is regarded as the most significant skill in learning English since it is the first step in acquiring a language. Listening comprehension is a significant component of language learning. Based on Krashen et. al. (1984) and Hamouda (2013), acquisition takes place when language learners receive adequate and understandable input. As Carroll (2001) mentioned, the input is the raw language data that students hear or read and contains a particular communicative intent. Rost (1994) asserted that listening has a critical role in learning a language because it supports learners with input and plays an important role in language learning. Learners desire to comprehend the spoken language and numbers of multimedia such as songs, the Internet, and DVDs (Vandergrift, 2007).

Based on Worde (1998), nearly 50% of foreign language (FL) learners experience a particular amount of anxiety. It is also asserted that language learning anxiety might lead to potential problems for FL learners (Kondo & Ling, 2004). Those language learners who are more anxious in their FL learning may not find their study delightful (Gregersen & Horwitz, 2002), which will cause negative effects on their performance. Most of the anxiety research studies in the FL context have focused on oral production (Kimura, 2008), while the shift has occurred to receptive skills such as listening which is one of the most influential skills for FL learners.

Moreover, MacIntyre (1999) noticed that language anxiety varies from its predecessor concept in the sense that it is a form of situation-specific anxiety; therefore, studies in the field of language anxiety should use measures of anxiety that are experienced in particular second or foreign language contexts. Indeed, it is significant that language anxiety to be "the worry and negative emotional reaction aroused when learning or using a second language" (p. 27). Likewise, Horwitz et al. (1991) conceptualized FL anxiety as a "distinct complex of self-perceptions, beliefs, feelings, and behaviours related to classroom language learning arising from the uniqueness of the language learning process" (p. 31).

Information and communication technologies provide learners with new opportunities and enhance the potentials for learners' continuous professional and personal improvement through motivating them to become autonomous learners by taking responsibility for their learning while interacting with their peers, faculty, and content (Garrison, 2011). The combination of communication and information technologies into the educational processes has presented blended learning, a pedagogical model which integrates the traditional lecture-based and face-to-face education with the experience of using learning technologies. This model of instruction is being applied in academic settings and it was recognized as one of the major trends in the knowledge delivery field (Curtis & Graham, 2006).

One such recently introduced teaching method and teaching strategy, which is developed by Jonathan Bergmann and Aaron Sams in early 2000, is known as the flipped classroom model (FCM) (Siegle, 2014). Tully (2014) noticed the flipped classroom as one of the instructional patterns and strategies which facilitate the teacher-learner and the learner-learner interaction through applying technology instruments. This method can generate substantial shifts in education and institution contexts. As Bergmann and Sams (2012) stated, the flipped classroom concept refers to what learners do at home as conventional learning they do during class time, and what they do during the class time as traditional learning they do at home. Therefore, taking advantage of the flipped classroom can enhance learner involvement, which results in positive educational outcomes and promotes their performance as a consequence of the learning environment (Reeve, 2013; Wilson, 2013).

FCM refers to a new instructional method in which videos are uploaded or given to the students and enables learners to preview them before class. Some researchers who conducted research studies on the effects of FC on EFL learning stated that flipped classrooms improved language learning (Ahmed, 2016; Chen Hsieh et al., 2016; Sung, 2015). Even though there are many research studies on the FC in developed countries, it seems that there are a few studies in Iran that precisely emphasize FCM to improve EFL learners' listening performance and there is no research study focusing on the effect of FCM on learners' classroom anxiety.

Literature Review

Factors Affecting Listening Comprehension

Many studies (Díaz-Galaz, 2012; Kutlu & Aslanolub, 2009; Soureshjani, 2011) have recognized some affecting factors on listening skills among EFL learners. Studies indicated two major approaches to the listening process: bottom-up vs. top-down approach (Brown, 2001; Flowerdew & Miller, 2005; Peterson, 2001; Richards, 1990).

Top-down Processing

Top-down processing looks from the above to fulfill listening aims. This type of processing employs learners' background knowledge to help them guess and predict (Brown, 2001). Top-down processing as higher-level processing is run via the listener's understanding of the topic, the text nature, the context, and the nature of the universe (Peterson, 2001). It deals with sequencing events and pictures, making inferences, exploring main ideas, determining specified details, and identifying perspectives (Peterson, 2001; Richards, 1990). Based on Batova (2013), top-down processing enables learners to elicit the meanings of the messages, and improve what they hear. Listeners use this process while they are using the context and their previous knowledge to create a conceptual framework for comprehending what they listen to.

Language understanding involves the integration of linguistic comprehension and nonlinguistic interpretation. Top-down processing moves from general to specific and focuses on the explanation of meaning besides the identification of sounds, words, and sentences. Listeners use personal experiences, topic understanding, or world knowledge to form hypotheses to interpret the text.

Bottom-Up Processing

Bottom-up processing refers to listeners' understanding of the individual sounds or phonemes as the smallest units of language. Listeners then attempt to merge the sounds with the words to create clauses, phrases, and sentences (Flowerdew & Miller, 2005). Bottom-up processing is like studying details to fulfill the aims. To put it another way, the listeners scrutinize the received message into different levels of structure, such as phonemes, words, phrases, and sentences, to comprehend the message. Therefore, bottom-up processing deals with the usage of phonological units, lexical components, and grammatical rules to identify information (Richards, 1990). However, in bottom-up processing, smaller units are processed first and then built up to larger units. Listeners start with the phonemes, sounds, syllables, words, and go on to sentences, paragraphs, discourse, and eventually to the whole text. They decode these components and make the meaning of whole speech based on their syntactic and grammatical knowledge (Lynch, 1998).

The Flipped Classroom Approach in the EFL Classroom

Recent years have viewed a trend of using FCM in teaching various subjects. The outcomes have been positive, with learners having more presence, increasing exam scores, and positive attitudes towards the learning process (Farah, 2014). The flipped model was also examined for its influence on learners' learning strategies (Avdic & Akerblom, 2015) or their perceptions (Li et al., 2015). However, a small number of research studies have investigated the impact of FCM on L2 improvement, particularly on learning English aural skills.

Ekmekci (2017) conducted a research study during 17-week treatment and compared a traditional teacher-centered writing class with a flipped learning class in terms of Turkish ELT learners' writing proficiency in the flipped group and ELT preliminary learners in the

control group. The analysis of the data revealed that the flipped classroom outperformed the teacher-centered classroom on the posttest. Besides, most of the learners in the flipped classroom showed a positive attitude towards the treatment process through flipped learning.

In FCM, the use of visual and audio files helps learners to better grasp the target materials. In a study, Mostafaei Alaei et. al. (2019) showed that visual scaffolding helped the students better comprehend the meaning of the L2 vocabularies and even some grammatical components in the materials. In addition, visual scaffolding aided learners to produce different types of materials.

Nami (2020) investigated the way language learning apps develop university-level students' semi-technical English language knowledge and the aspects and qualities they find significant in these educational apps. The findings showed that participants who used language learning apps had better performance in the posttest in comparison to those who did not use language learning apps.

Although there is increased attention towards flipped classroom approach from educators worldwide, it can be seen that the great numbers of the conducted studies are related to STEM corresponding fields (Science, Technology, Engineering, and Mathematics) with a great gap to be filled in TEFL. Yet some pioneering research has been carried out to examine how Flipped Classroom can be best incorporated into EFL classrooms. In a study, Mireille (2014) investigated the effect of the flipped classroom on Emirati EFL learners' writing. The results showed the experimental group (flipped classroom group) gained higher scores and presented a favorable attitude towards flipped classroom approach.

FCM and Listening Comprehension

In a study, Jafarigohar et. al. (2019) investigated the impact of the flipped classroom on improving EFL learners' listening and speaking skills. 60 Iranian EFL university students were assigned into two groups, flipped and conventional groups. The flipped group received the instruction through the Telegram app. The findings indicated that the flipped group significantly outperformed the conventional group in the post-test. The findings of the questionnaire also showed the flipped group's satisfaction with learning English through flipped classrooms and found it effective in improving their listening and speaking skills.

In another study, Namaziandost et. al. (2019) attempted to find out the impact of flipped instruction on Iranian EFL learners' listening comprehension. 50 participants were randomly assigned into two groups, one experimental (flipped) and one control group. The participants in the flipped group were allowed to use computers, the projector, and their Smartphones during class time. The participants in the control group were received audio files once or twice in the class. They were required to answer the questions right after the listening. The findings of the study showed that the experimental group outperformed the control group on the post-test.

Ahmad (2016) conducted a study to examine the effect of the FCM on Egyptian EFL students' listening comprehension. Thirty-four university students took part in the study and were assigned to one experimental group. Through the FCM three successive stages, planning, implementation, and evaluation were run. The findings showed that the flipped classroom had a statistically significant impact on participants' listening comprehension.

Foreign Language Classroom Anxiety (FLCA)

As a psychological trait, anxiety refers to an apprehension condition, an ambiguous and unknown fear which is only incidentally related to an event (Hilgard, Atkinson, &

Atkinson, 1971, as cited in Hashemi, 2011). There is a distinction made by psychologists between three classes of anxiety: trait anxiety, state anxiety, and situation-specific anxiety (MacIntyre & Gardner, 1989). The first one, trait anxiety, refers comparatively to a permanent personality aspect, a more steady capacity to be anxious (Ellis, 1994); while the second class of anxiety, state anxiety, is an impermanent type of anxiety, i.e. a response to a specific anxiety-provoking stimulus such as an important exam. The third classification, situation-specific anxiety, is the steady and multi-dimensional nature of some types of anxiety (Horwitz, 2001). It is stimulated by a particular sort of conditions or events like examinations, class participation, or public speaking (Ellis, 1994).

As Zheng (2008) claimed, the distinction between these classes of anxiety ranges from stability to transience. Indeed, trait anxiety as a permanent propensity to be nervous in different circumstances forms one end and an ongoing and transient emotional experience forms the other. FLCA, as suggested by Horwitz, Horwitz, and Cope (1986), is a distinctive form of anxiety varied from other types of anxiety and specified to foreign language learning settings. These researchers explained FLCA as a feeling of concern related to the stimulation of the autonomic nervous system, which can negatively influence the EFL learners' classroom performance. FLCA has been defined as a distinguished mixture of feelings, beliefs, behaviors, and self-perceptions dealing with classroom learning resulting from the distinctiveness of the language learning process (Horwitz et al., 1986).

The study of L2 anxiety has been started more than three decades in the 1970s. The findings of research on L2 language anxiety show two different approaches: anxiety transfer and unique anxiety approach, which are relied on various conceptions of second anxiety (Tóth, 2010). She also stated that the hypothesis behind the anxiety transfer is that second/foreign language is the transition of different types of anxiety into the L2 learning setting. To put it another way, it is proposed that learners who are mainly anxious or encounter anxiety in particular circumstances often become anxious while learning or using an L2.

By contrast, based on the underlying hypothesis of the unique anxiety, learning a language creates a distinctive kind of anxiety. In this hypothesis, the anxiety dealing with L2 is known as situation-specific anxiety caused by learners' experience through learning and the use of a target language. Considering these viewpoints, the unique anxiety has proved to be more effective.

Flipped Classroom and Anxiety

While using a cooperative approach, it can be proposed that either social affective or individuals' learning aspects will be supported by a social learning context. Based on the social learning theory developed by Vygotsky (1978), learning happens through individual interactions; learning cooperatively is one of the successful teaching strategies which best-provided interactivities to involve learners. Therefore, this type of learning environment can reduce learners' anxiety levels too. The existing evidence indicated a negative correlation between learners' anxiety and their academic achievement. As a result, learners with a high level of anxiety score lower on academic achievement (Luigi et al., 2007; McCraty, 2007). Learner anxiety is developed by emotionless teaching or an over-demanding syllabus design. These conditions direct learners to a surface learning approach in which learners see learning activities as compulsory and coping strategies (Mayya, Rao & Ramnarayan, 2004). Besides, the feeling of anxiety and stress evoked from issues related to the person or family also causes anxiety. The flipped classroom context asks teachers to devote more time to learner-centered tasks and activities, present perceptible and meaningful teaching, and reduce the

stress of an overloaded curriculum.

Moreover, regardless of the rapid changes in the area of technological improvement in this digital age, learners, in some situations, may experience anxiety while working with technological devices such as computers. For example, individuals who use computers for the first time are usually disappointed. Learners' feelings of anxiety, uneasiness, and distraction can be indicated in learner-computer interaction and in the process of learning, social relationships, and general principles as well (Saadé & Kira, 2009). Particularly, anxiety, in research studies about information systems, is known as an individual factor influencing the application of the system (Agarwal & Karahanna, 2000). Venkatesh and Davis (2000) stated that the increase in the level of anxiety adversely affects success and availability.

The easy use of web-oriented learning settings has indicated a more desirable attitude of learners and may reduce their anxiety levels. For most learners, the problematic area is to be anxious about using web-based and online technology instruments rather than to be anxious about computers. Based on Magen-Nagar and Shonfeld (2018), in online learning environments, collaborative learning affects learners' technology anxiety. Considering the existing gaps in the literature related to flipped instruction, studying learners' social and computer anxiety is noteworthy and requires being investigated.

In a related research study, Melanlioglu (2013) investigated the effect of authentic listening tasks on decreasing EFL students' listening anxiety and improving their listening comprehension level. Melanlioglu emphasized listening comprehension, listening anxiety, and the effect of authentic tasks on both listening comprehension and listening anxiety. The results of the study revealed that using authentic tasks for the listening skill in mother tongue education has a positive influence in terms of decreasing listening anxiety and improving listening comprehension.

Purpose of the Study

This research is targeted at examining the possible influences of the FCM on Iranian EFL learners' classroom anxiety and listening performance. Based on the purpose of the study and the statement of the problem the following research questions were formulated:

Research Question

RQ1: Does flipped classroom model have any statistically significant effect on EFL learners' classroom anxiety?
RQ2: Does flipped classroom model have any statistically significant effect on EFL learners' listening performance?

To find logical answers to the above-mentioned research questions, the following null hypotheses were formulated:

H01: Flipped classroom model does not have any statistically significant effect on EFL learners' classroom anxiety.
H02: Flipped classroom model does not have any statistically significant effect on EFL learners' listening performance.

Method

To answer the posited research questions, the procedure accommodating sampling, instrumentation, data collection, and data analysis explained as follows was carried out.

Participants

The study was conducted in 2019/2020 at the Danesh English language institute, Tehran, Iran. A total of 97 students studying English with the age ranging from 18 to 25 years old voluntarily participated in the study as the initial sample of the study. They spoke Persian as their first language.

Research Tools

An Oxford Placement Test (OPT): This test is developed to provide English teachers and learners a quick way of measuring the approximate level of a learners' knowledge of English (see Appendix A). The required time to complete the exam is 55 minutes. This test consists of two parts with 60 multiple-choice items and cloze tests. The first part contains 40 questions and the second part includes 20 questions. Participants of the study were asked to read the statements and then choose the correct answers among the choices.

Classroom Anxiety Measure: This five-point Likert scale is based on Richmond's Situational Communication Apprehension Measure (Richmond, Wrench & Gorham, 2001). For the reliability of the questionnaire, Cronbach's alpha coefficient was run to compute the internal consistency of the instrument. The measure of Cronbach's alpha level was 0.90, the maximum expected value. This questionnaire consists of statements learners have used to explain their feelings in the classroom. After each statement, they were asked to show the number that best expresses their feelings while attending the class. There were no correct or incorrect answers (see Appendix B). They were asked to work quickly and circle their first perception. They should show their feelings by choosing: Strongly disagree (1) to strongly agree (5).

Scoring the Classroom Anxiety Measure: To compute the scores, the researcher added the scores for each item as indicated below: First of all, to avoid facing problems in scoring, the Bolded questions must be recorded (reverse scored) through this format: [1→5; 2→4; 3→3; 4→2; 5→1].

After re-coding the items, the obtained numbers were added to get the Classroom Anxiety score. The scores must be ranged from 20 to100. Scores of 80 and above show high classroom anxiety; those who score 25 and below it refer to low test or evaluation apprehension; and those whose scores range from 26 to 79 show moderate text or evaluation apprehension.

Preliminary English Test (PET) as the Pre/Posttests: The main test has four sections: Reading, Writing, Listening and Speaking (see Appendix C). The required time to carry out the whole test is 130 minutes. For the current study, the listening part of the test was used. The details related to the listening part were as follows: This test consisted of 25 questions in four different parts and each of the questions scored 1 mark; therefore, the total mark was 25. The allocated time is 30 minutes. The four parts are as follows:

1) Images containing multiple-choice items;
2) Longer recording and multiple-choice items;
3) Complete notes;

4) True/false

In part 1 of the PET, learners listened to seven short recordings and for each recording, they had to choose the best of three pictures. They listened to the audio twice. In part 2 of the test, participants listened to a longer recording and answered 6 multiple-choice questions. They listened to the audio twice. In part 3, learners were asked to listen to a longer monologue. While they were listening, they needed to complete some notes. There were six gaps to complete. They were required to listen to the audio twice. In part 4 of the PET, participants listened to a longer recording and answered 6 True/False questions. They also listened to the audio twice.

Data Collection Procedure

The experiment was carried out during 16 sessions in a six-successive-week period. The first and the last sessions were devoted to the administration of the pretest and the posttest and the remained 14 sessions for the treatment procedure. The effectiveness of the instruction was investigated through comparison and analysis of the pre-post test scores.

After administration and analysis of the results of the OPT, a number of 68 participants who scored ±1 standard deviation (intermediate level) took part as the sample of the study. Through random assignment, they were divided into two groups as one experimental or treatment group and one control group each containing 34 participants. The next step was the administration of the classroom anxiety questionnaires to measure learners' level of classroom anxiety. As the next step, to assess learners' prior knowledge on listening comprehension, a PET listening test as the pretest was given to both groups. Then, the participants in the treatment group received the instruction through the flipped classrooms with different types of video podcasts; however, the learners in the control group were exposed to traditional instruction.

Experimental Group

The experimental group received the treatment through the flipped classroom model. As it was explained, the main aspect of flipped learning was the instruction outside and the preparation inside the class. To start the treatment, the teacher-researcher created a group on WhatsApp messenger. Two days before the class time, the video podcasts were sent to the flipped group through WhatsApp messenger. The participants were asked to study the materials related to the target instruction before attending the class. They were also able to ask questions, answer their peers' questions, or post relevant video and audio files on the WhatsApp group.

At the beginning of each session, the teacher-researcher discussed the videos and audios with the learners to find out whether all the learners had watched the video or not. During class time, the teacher engaged learners with in-class tasks and activities to discuss, think carefully about, and practice the learned content. Because participants were supposed to already know the material, the teacher could ask learners to explain and complete the tasks. Therefore, learners complete the tasks and exercises in groups and exchange them for peer correction. Wherever the group members found mistakes, they had to correct the mistakes and describe their corrections.

Control Group

The learners in the control group came to class with no prior background of the new lesson. They received the listening instruction with the same textbook followed by watching the video clips or listening to the audios inside the classroom using traditional teaching strategies (the same materials the flipped group watched before and outside the class). Before teaching each unit, the teacher-researcher provided background knowledge and after teaching each unit, the learners were required to answer some questions related to the lesson. The last stage was administrating the listening posttest and classroom anxiety measure to both groups to assess the participants' knowledge as well as the effectiveness of the treatment.

Data Analysis

The process of assessing the efficiency of the treatment and learners' achievement, started after collecting the required data from the OPT, the pretest and the posttest, and the classroom anxiety measure of the two groups. To this end, the researcher put the data in SPSS (Statistical Package for the Social Sciences) program version 22 and ran the analysis of covariance (ANCOVA) tests to discover any differences between the two teaching methods, the effectiveness of the treatment as well as learners' achievement.

Results

After administering the language proficiency test, out of 97 learners, 68 were regarded as homogenous participants considering their scores on OPT ranging from 37 to 47 (intermediate level). Table 1 indicates the descriptive statistics of the homogenized participants.

Table 1
The Descriptive Statistics of the Sample of the Study

	N	Min	Max	Mean	SD	V
Homogenized	68	37.00	47.00	41.57	2.97	8.84
Valid N (list-wise)	68					

Answering the First Research Question

The first question was seeking to find out if using the FCM had significant effects on EFL learners' classroom anxiety. To answer the question, the researcher ran the ANCOVA test. Table 2 shows the descriptive statistics for the anxiety scores of the two groups.

Table 2
The Descriptive Statistics for the Anxiety Scores of the Two Groups

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
control	56.590[a]	.202	56.185	56.994
experimental	56.499[a]	.202	56.094	56.903

For Table 2 above, the mean for the control and experimental groups related to their anxiety scores is 56.59 and 56.49 respectively. It should be mentioned that based on the

scoring method of the classroom anxiety measure, scores ranging from 26 and 79 display moderate test or evaluation apprehension. Table 3 shows the analysis of the data by running the ANCOVA test.

Table 3
The Result of the ANCOVA for the Comparison of the Anxiety Scores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1436.351[a]	2	718.175	515.720	.000	.941
Intercept	.063	1	.063	.045	.832	.001
Prescores2	1435.159	1	1435.159	1030.584	.000	.941
Group	**.140**	**1**	**.140**	**.101**	**.752**	**.002**
Error	90.517	65	1.393			
Total	218939	68				
Corrected Total	1526.868	67				

Considering Table 3, there is no significant variation between the two research groups considering their anxiety scores, $F(1, 65) = .101$, $p > .05$, partial $\eta2 = .002$. Therefore, the first null hypothesis was accepted, meaning that the flipped classroom model did not affect Iranian EFL learners' classroom anxiety scores.

Answering the Second Research Question

To find out whether using a flipped classroom model had a significant impact on learners' listening performance, the ANCOVA test was run. Table 4 shows the descriptive statistics for the listening scores of both research groups.

Table 4
The Descriptive Statistics for the listening Scores of the Two Groups

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
control	16.582[a]	.116	16.35	16.81
experimental	19.094[a]	.116	18.86	19.32

Considering Table 4, the mean for the control and experimental groups related to their listening are 16.82 and 19.09 respectively. Table 5 below represents the obtained result through running the ANCOVA test.

Table 5
The Result of the ANCOVA for the Listening Scores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	207.710[a]	2	103.85	228.74	.000	.876
Intercept	2.380	1	2.38	5.24	.025	.075
Prescores4	111.224	1	111.22	244.98	.000	.790
Group	**107.018**	**1**	**107.01**	**235.71**	**.000**	**.784**
Error	29.511	65	.45			

Total	21875.000	68
Corrected Total	237.221	67

As Table 5 shows, the two research groups had significant difference regarding their listening scores, $F (1, 65) = 235.71$, $p < .05$, partial $\eta 2 = .78$. Therefore, the researcher safely rejected the second null hypothesis, meaning that the flipped classroom model significantly affected Iranian EFL learners' listening performance.

Discussion

The main purpose of the present research was to explore whether the flipped classroom model had any effect on Iranian EFL learners' classroom anxiety and listening performance. The findings related to the first research question revealed that using the flipped classroom model did not affect Iranian EFL learners' classroom anxiety, and there was no change in their level of anxiety. Indeed, both groups experienced the same classroom anxiety condition.

These findings are supported by those reported by Eryilmaz and Cigdemoglu (2019), which compared the impacts of flipped learning, individual and collaborative flipped learning on learners' performance, computer, and social anxiety. The findings revealed that there was not a meaningful mean difference between the performances of both groups; however; the FL group with cooperative activities had less social anxiety, but their computer anxiety level stayed with no change.

The outcomes of this study are not following those reported by Deliktas and Stojkovska (2019), which revealed a statistically significant decrease in math anxiety levels of the learners in the experimental group, but no significant decrease in math anxiety levels of the learners in the control group. The results are not consistent with those reported by Magen-Nagar, and Shonfeld (2018) which attempted to find the association of an Online Collaborative Learning (OCL) program on Israeli learners' viewpoints towards technology regarding technological anxiety, technology orientation, and self-confidence. The findings show that involving learners in OCL programs could decrease their technological anxiety. However, learners' satisfaction and motivation had a strong impact on their attitudes towards technology in OCL settings.

The analysis of the second research question indicated that the treatment (teaching through a flipped classroom model) was efficient so far as the listening performance of the participants of the study was concerned.

The findings associated with the second question are following the findings of a study conducted by Namaziandost et. al. (2019) and Vaezi et. al. (2019) which showed that flipped instruction had a positive effect on learners' listening skills. The results of the current study are also supported by the findings of a study carried out by Hidayati (2019) which revealed the advantages of flipped learning were advantageous for teachers and learners as well as parents. The results of this study confirmed the findings reported by Xiaoyan (2018) which show that using this model fosters learners' self-learning ability and cultivates their listening level. The findings also agree with the findings of a study carried out by Ashraf et. al. (2013) which showed active learning promotes learners' listening comprehension.

The reported results of this study are in agreement with the findings reported by El Sakka (2016) that showed a great amount of improvement in learners' listening comprehension. The results are supported by those findings reported by Ahmad (2016). The study revealed the substantial role of FCM in improving students' listening comprehension.

The results of this study could also be interpreted as the advantages of blending various teaching methods, which are a group of enriched class tasks and activities that are modified based on learners' characteristics and different abilities. Taking advantage of authentic materials while teaching listening skills can provide useful effects on L2 learners' listening proficiency if the tasks and activities given to the learners are appropriate for their language proficiency level. Therefore, the results confirm the previous findings that practicing listening to using authentic materials has benefits (Vandergrift, 2007).

Conclusion

Nowadays, with the high reliance of the learners on technology, predesigned pedagogical materials such as PowerPoint presentations, videos, audios, podcasts, and screencasts are quite appealing since they address different methods of learning which provide self-paced learning. This helps learners spend more time in class carry out what they had learned through the predesigned content under the instructor's close supervision.

The FCM as an effective method in teaching and learning languages allows learners to improve their language proficiency more quickly by working both in-class and independently. This form of collaborative teaching and learning can function as an effective technique in the learning process. Although a flipped classroom can play an important role in modern education by freeing time for student-centered activities and motivating learners to become independent self-learners (Mason et al., 2013), it should be considered as a complementary method and not as an alternative to traditional teaching because in some educational contexts like some rural areas it is not feasible to expect teachers to use this type of instruction before providing the setting with the necessary online facilities.

Considering the findings of this study it can be concluded that the FCM completely affected the process of learning and teaching. It provides opportunities for teachers and learners by increasing involvement, deeper learning, self-regulation, and reflecting on group communication. However, sources of anxiety may affect the success of collaboration where learners have conflicting perceptions of expected learning outcomes. Anxiety is a significant factor that affects EFL learners' listening performance; therefore, teachers should reduce learners' anxiety by increasing their self-confidence in the EFL classroom. Listening comprehension activities that focus on listening anxiety will empower both the teacher and the student. When teachers and learners make the shift from listening for correctness to listening for conveying a message, the motivation to understand enhances, and the fear of being incorrect decreases. Students who are encouraged to listen and learn will have positive attitudes toward the target language and its speakers as well.

This study suffers from different limitations that may need to be taken into consideration for future investigations. First, the sample size may be considered as a limitation and affects the generalizability of the results obtained. Second, since the majority of the participants were female the gender as an independent variable was not taken into account; the findings may be affected by it, and future studies may investigate the effect of gender on the results. Third, future research may also address in-depth interaction models taking place in flipped classrooms with cooperative tasks to indicate how it increases student learning.

Furthermore, this study suggests conducting studies tackling the effect of the flipped model on EFL critical listening, EFL students' attitude towards using flipped classrooms in education, examining the effect of other online instruments such as e-mails, weblogs, and discussion boards on listening performance, and studying the effect of the flipped model on

EFL students' self-directed learning. Attempts should also be directed to discover the influential and useful methods for flipped learning evaluation and ways to improve learners' involvement with using video and audio files outside the classroom (Haladyna et al., 2002; Watanabe, 2014).

References

Agarwal, R., & Karahanna, E. (2000). Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. *MIS Quarterly, 24*(4), 665-694.

Ahmad, S. Z. (2016). The flipped classroom model to develop Egyptian EFL students' listening comprehension. *English Language Teaching*, *9*(9), 166-178.

Ashraf, H., Fatemi, M., & Naderi, S. (2013). The effect of active learning instruction on the intermediate Iranian EFL learners' listening comprehension ability. *International Journal of Linguistics, 5*(5), 225-242. http://dx.doi.org/10.5296/ijl.v5i5.4264

Avdic, A. & Akerblom, L. (2015). *Flipped classroom and learning strategies. In Proceedings of 14ᵗʰ European Conference on e-Learning*. UK: Academic Conferences Publishing. 41-49.

Batova, N. (2013). Academic listening: Is there a place for bottom-up processing? *International Journal of Education Research, 1*(4), 1-10.

Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach Every Student in Every Class Every Day (pp. 120-190)*. Washington DC: International Society for Technology in Education.

Brown, H. D. (2001). T*eaching by principles: An interactive approach to language pedagogy*, (2ⁿᵈ ed.). New York: Longman.

Carroll, S. (2001). *Input and evidence: The raw material of second language acquisition.* Amsterdam: John Benjamins.

Chen Hsieh, J. S., Wu, W. C. V., & Marek, M. W. (2016). Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning*, *1*(1), 1-25.

Clark, K. (2015). The effects of the flipped model of instruction on student engagement & performance in the secondary mathematics classroom. *Journal of Educators Online, 12*(1), 91-115.

Curtis, B. J. C., & Graham, C. R. (2006). *The handbook of blended learning, global perspectives, local design.* San Francisco: Pfeiffer.

Danker, B. (2015). Using flipped classroom approach to explore deep learning in large classrooms. *IAFOR Journal of Education*, *3*(1), 171-186.

Deliktas, Y., & Stojkovska, I. (2019). *Investigating the impact of flipped learning on mathematics performance and math anxiety.* Proceedings of the International Conference on Education in Mathematics, Physics and Related Sciences, Skopje, September 27-28.

Díaz-Galaz, S. (2012). *La influencia del conocimiento previo en la interpretación simultánea de discursos especializados* [The influence of prior knowledge in the simultaneous interpretation of specialized speeches]. (Unpublished doctoral dissertation), Tesis Univ. Granada.

Ekmekci, E. (2017). The flipped writing classroom in Turkish EFL context: A comparative study on a new model. *Turkish Online Journal of Distance Education (TOJDE), 18*(2), 151-167.

Ellis, R. (1994). *The study of second language acquisition.* Oxford: Oxford University Press.

El Sakka, S. M. F. (2016). A flipped learning based model to develop EFL freshman university students' listening comprehension. In *4th Scientific international Conference of Curriculum and Instruction Association, Ain Shams University, Egypt.*

Eryilmaz, M., & Cigdemoglu, C. (2019). Individual flipped learning and cooperative flipped learning: their effects on students' performance, social, and computer anxiety. *Interactive Learning Environments*, *27*(4), 432-442.

Farah, M. (2014). *The impact of using flipped classroom instruction on the writing performance of twelfth grade female Emirati students in the applied technology high school*, (Unpublished master thesis). The British University. Dubai.

Flowerdew, J., & Miller, L. (2005). *Second language listening: Theory and practice.* Cambridge: Cambridge University Press.

Garrison, D. R. (2011). E-learning in the 21st century: A framework for research and practice. Taylor & Francis, London: Routledge.

Gregersen, T., & Horwitz, E. K. (2002). Language learning and perfectionism: Anxious and non‐anxious language learners' reactions to their own oral performance. *The Modern Language Journal*, *86*(4), 562-570.

Haladyna, T., Downing, S., & Rodriguez, M. (2002). A review of multiple-choice item writing guidelines for classroom assessment. *Applied Measurement in Education*, *15*(3), 309-334.

Hamouda, A. (2013). An investigation of listening comprehension problems encountered by Saudi students in the el listening classroom. *International Journal of Academic Research in Progressive Education and Development, 2*(2), 113-155.

Hashemi, M. (2011). Language stress and anxiety among the English language learners. *Procedia-Social and Behavioral Sciences*, *30*, 1811-1816. doi:10.1016/j.sbspro.2011.10.349

Hidayati, L. N. (2019). *Flipped learning to develop students' listening performance at the secondary level*. Proceeding of 1st Conference of English Language and Literature (CELL).

Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics, 21*(1), 112-126.

Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *The Modern Language Journal. 70*(2), 125-132.

Horwitz, M. B., Horwitz, E. K., & Cope, J. (1991). Foreign language classroom anxiety. In E. K. Horwitz, & D. J. Young (Eds.), Language anxiety: From theory and research to classroom implications (pp. 27-39). Englewood Cliffs, NJ: Prentice Hall.

Jafarigohar, M., Khoshsima, H., & Haghighi, H. (2019). Incorporation of flipped learning into EFL classrooms performance and perception. *Iranian Journal of English for Academic Purposes*, *8*(3), 1-14.

Kimura, H. (2011). *A self-presentational perspective on foreign language listening anxiety* [Doctoral dissertation, Temple University. Libraries]. Retrieved from http://gradworks.umi.com/34/77/3477769.html

Kondo, D. S., & Ying-Ling, Y. (2004). Strategies for coping with language anxiety: The case of students of English in Japan. *ELT Journal, 58*(3), 258-265.

Krashen, S. D., Terrell, T. D., Ehrman, M. E., & Herzog, M. (1984). A theoretical basis for teaching the receptive skills. *Foreign Language Annals, 17*(4), 261-275.

Kutlu, O., & Aslanolub E. (2009). Factors affecting the listening skill. *Procedia Social and Behavioral Sciences 1*, 2013-2022.

Li, Y., Zhang, M., Bonk, C. J., & Guo, N. (2015). Integrating MOOC and flipped classroom practice in a traditional undergraduate course: Students' experience and perceptions.

IJET journal, 10(6), 4-10.

Luigi, M., Francesca, D., Maria, D. S., Eleonora, P., Valentina, G. D., & Benedetto, V. (2007). The role of anxiety symptoms in school performance in a community sample of children and adolescents. *BMC Public Health, 7*(347). doi:10.1186/1471- 2458-7-347

Lynch, T. (1998). Theoretical perspectives on listening. *Annual Review of Applied Linguistics. 18*, 3-19.

MacIntyre, P. D. (1999). Language anxiety: A review of the research for language teachers. In D. J. Young, (Ed.), *Affect in foreign language and second language learning: A practical guide to creating a low-anxiety classroom atmosphere*, (pp. 24-45). McGraw-Hill, Boston.

MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second language reading and listening comprehension. *Modern Language Journal, 73*, 32-40.

Magen-Nagar, N., & Shonfeld, M. (2018). The impact of an online collaborative learning program on students' attitude towards technology. *Interactive Learning Environments, 26*(5), 621-637.

Mason, G. S., Shuman, T. R., & Cook K. E. (2013). Comparing the effectiveness of an inverted classroom to a traditional classroom in an upper-division engineering course. *IEEE Transactions on Education, 54*(4), 430-435.

Mayya, S. S., Rao, A. K., & Ramnarayan, K. (2004). Learning approaches, learning difficulties and academic performance of undergraduate students of physiotherapy. *The Internet Journal of Allied Health Science and Practice, 2*(4), Article 6.

McCraty, R. (2007). *When anxiety causes your brain to jam, use your heart.* Boulder Creek, CA: HeartMath Research Center, Institute of HeartMath.

Mireille, F. (2014). *The impact of using flipped classroom instruction on the writing performance of twelfth grade female Emirati students in the Applied Technology High School (ATHS).* (Unpublished master's thesis). Faculty of Education, the British University, Emirates.

Mostafaei Alaei, M., Kardoust, A., & Saeedian, A. (2019). The role of visual scaffolding in enhancing Iranian EFL students' writing ability. *Issues in Language Teaching*, *8*(2), 187-211.

Namaziandost, E., Neisi, L., & Momtaz, S. (2019). The effectiveness of flipped classroom model on listening comprehension among Iranian upper-intermediate EFL learners. *Journal of Applied Linguistics and Language Research*, *6*(4), 129-139.

Nami, F. (2020). Towards more effective app-assisted language learning: The essential content and design features of educational applications. *Issues in Language Teaching*, *9*(1), 245-278.

Peterson, P. W (2001). Skills and strategies for proficient listening. In M. Celce-Murcia. (Ed). *Teaching English as a second or foreign language* (pp. 87-100) Boston: Heinle & Heinle.

Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology, 105*(3), 579-595.

Richards, J. C. (1990). *The language teaching matrix.* Cambridge: Cambridge University Press.

Richmond, V. P., Wrench, J. S., & Gorham, J. (2001). *Communication, affect, and learning in the classroom.* Acton, MA: Tapestry Press.

Rost, M. (1994). *Introducing listening.* London: Penguin books.

Saadé, R. G., & Kira, D. (2009). Computer anxiety in e-learning: The effect of computer self-efficacy. *Journal of Information Technology Education, 8*(1), 177-191.

Soureshjani, K. (2011). The inevitable role of cultural background on the Iranian EFL learners' reading and listening skills. *US-China Foreign Languages Journal, 9*(6), 390-397.

Sung, K. (2015). A case study on a flipped classroom in an EFL content course. *Multimedia-Assisted Language Learning, 18*(2), 159-187.

Tóth, Z. (2010). *Foreign language anxiety and the advanced language learner: A study of Hungarian students of English as a foreign language.* Newcastle: Cambridge Scholars Publishing.

Tully, D. R. (2014). *The effects of a flipped learning model utilizing varied technology versus the traditional learning model in a high school biology classroom* (Unpublished master thesis). Montana State University, Science Education.

Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language Teaching, 40*(3), 191-210

Vaezi, R., Afghari, A., & Lotfi, A. (2019). Investigating Listening Comprehension through Flipped Classroom Approach: Does Authenticity Matter?. *CALL-EJ, 20*(1), 178-208

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186-204.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Watanabe, Y. (2014). Flipping a Japanese language classroom: Seeing its impact from a student survey and YouTube analytics. In *Proceedings of ascilite2014 Rhetoric and Reality: Critical perspectives on educational technology* (pp. 761-765). Dunedin, New Zealand.

Wilson, S. G. (2013). The flipped class: A method to address the challenges of an undergraduate statistics course. *Teaching of Psychology, 40*(3), 193-199.

Wörde, R. A. (1998). *An investigation of students' perceptions of foreign language anxiety* [Doctoral dissertation, George Mason University of Virginia]. Dissertation Abstracts International, 59-03A, 0717.

Xiaoyan, S. (2018). *The application of flipped classroom model in college English listening teaching.* International Conference on Education, Psychology, and Management Science (ICEPMS 2018)

Zheng, Y. (2008). Anxiety and second/foreign language learning revisited. *Canadian Journal for New Scholars in Education*, *1*(1), 1-12.