

# The Effect of Listening Flipped Instruction on EFL Learners' Listening Comprehension Ability and Anxiety

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## Abstract

As a relatively new pedagogical approach, flipped instruction has received much attention. Accordingly, numerous studies in the field of English Language Teaching (ELT) have delved into the usefulness of flipped classroom for language learning; however, this mode of instruction has yet to be explored in the area of second language (L2) listening. This being so, the current study investigated the effect of a flipped course model on Iranian English as a foreign language (EFL) learners' listening performance and L2 listening anxiety utilizing a pretest-posttest control group design. The study divided 39 students preparing for the International English Language Testing System (IELTS) exam into two groups: One class received conventional instruction (non-flipped), and one class received instruction based on the principles of flipped instruction (flipped). The participants answered two IELTS practice tests and completed two questionnaires, namely the Listening Anxiety Questionnaire and the Perception of Flipped Learning Experience questionnaire. The results of statistical analyses revealed that the listening performance of both groups improved significantly from the pretest to the posttest and that the flipped class outperformed the control group. Furthermore, it was found that not only did flipping the class alleviate participants' L2 listening anxiety substantially, but also it positively influenced their attitude toward this mode of instruction. Implications of these findings have been elaborated for stakeholders.

**Keywords:** Flipped instruction, listening comprehension, listening anxiety

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## INTRODUCTION

Over recent years, teachers have increasingly turned to flipped learning as an alternative instructional model aimed at enhancing learners' motivation and overall achievement. In this model, input material is delivered to students before attending the class through modern technology, requiring them to do the preparatory work so that class time is instead devoted to collaboration, discussion and application of knowledge (Hamdan et al., 2013). Contrary to traditional instruction, flipped instruction creates a student-centered environment that allows for more learning (Bergmann & Sams, 2012). This is specifically important in English as a Foreign Language (EFL) contexts, where opportunities for authentic language use outside the classroom are limited and class time must therefore be used efficiently rather than being consumed by extended teacher explanations.

Flipped instruction is consistent with popular second language acquisition theories and principles. In line with cognitive load theory (Sweller, 1988), flipped instruction attempts to reduce learners' cognitive load by having them engage in lower-level cognitive processes, such as receiving information outside the classroom, while allowing classroom time to be devoted to higher levels of cognitive processes, such as decision-making, analysis, and critical thinking. Another theoretical underpinning is learner-centeredness (Clark, 2015), materialized through making learners responsible for attending the class with a basic understanding of knowledge. Characterized as "a dynamic and interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter" (Flipped Learning Network, 2014, p. 1), flipped instruction also accords with the sociocultural theory which posits scaffolding is at the core of learning and learners' agency (Lantolf, 2011). Also, the fact that learners in flipped second language (L2) education interact both with the target language (i.e., interaction with content) and with their peers through what they have learned (i.e., interaction via content) further corroborates that flipped instruction conforms to the tenets of sociocultural theory (Jiang et al.,

2020). Grounded in these principles, flipped instruction can be used to boost language skills such as listening which is interactive in nature.

Apart from mode of instruction, scholars have mentioned a plethora of emotions, such as anger, mindfulness, boredom, and loving pedagogy, among others, that influence learners' success (Dörnyei & Ryan, 2015; Li, 2021). Another key affective variable is L2 listening anxiety, a category of foreign language anxiety (Chen et al., 2025). L2 listening is an anxiety-provoking skill because L2 learners are worried that they may misunderstand and misinterpret the speaker's intention. Further, different from written language, spoken language is ephemeral, there are fewer chances for repetition, the rate of delivery of information is out of control, and the meaning of some words may remain vague until the whole sentence is presented (Ji et al., 2022). Listening anxiety negatively influences learners since it functions as an affective factor preventing input from reaching that part of the brain responsible for language acquisition (Krashen, 1985). The body of research on L2 listening has provided evidence that L2 listening anxiety is negatively correlated with learners' performance (Mahmoodi et al., 2024; Zhang & Xu, 2025) and strategy use (Gonen, 2009). Therefore, stakeholders should take measures to help learners cope with their learning anxiety. Although flipped courses, with their preparatory approach, could reduce the stress of unpredictable classroom situations, the role of the flipped mode of instruction in reducing learners' L2 listening anxiety is less thoroughly researched (Qiu & Luo, 2022; Rajabi et al., 2021), hence a need to fill this niche.

Despite the growing body of research on flipped instruction in EFL contexts, existing studies have predominantly focused on productive skills of writing (Nouraei Yeganeh & Nemati, 2024; Gok et al., 2023) and speaking (Amiryousefi, 2017). By contrast, comparatively little attention has been paid to listening, particularly in test-oriented instructional settings, such as the International English Language Testing System (IELTS), where listening strategy instruction plays a central role in learners' success (Turan & Akdag-Cimen, 2019). Moreover, few studies have simultaneously examined both cognitive outcomes (e.g., listening performance) and affective variables such

as listening anxiety within a flipped learning framework. To address these gaps, the present study investigates the effects of flipped versus non-flipped listening strategy instruction in an IELTS preparation context, with a particular focus on learners' listening comprehension development, listening anxiety, and perceptions of the flipped learning experience.

## **LITERATURE REVIEW**

### **Flipped Classroom**

In recent years, flipped instruction has taken precedence over traditional teaching due to its learner-centeredness and communicative approach (Li & Li, 2022). Flipped learning is “a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter” (Formal definition by the Flipped Learning Network, 2014, p. 1). As such, flipped classrooms entail reversing homework and classroom activity roles. In other words, in flipped classrooms, knowledge acquisition occurs at home via, for example, watching videos, while class time is used for active practice and feedback (Liu, 2022). When students are introduced to the course material in advance, they have the benefit of revisiting the learning content since they can pause and rewind the videos at will or read the texts at their own pace (Qiu & Luo, 2022). With repeated exposure to the material, students' understanding of the material can be reinforced, and their level of cognitive processing can be deepened. Research suggests that students who engage in pre-class activities are more active in the classroom and obtain more promising assessment results (McLaughlin et al., 2015).

The flipped classroom, however, does not end with offering access to curricular content out of class (Lee, 2019). Teachers should also consider the appropriate structuring of the classroom. In this respect, the instructional time made available can be allotted to in-class active learning, resulting in more

interaction with others, clearing up confusions immediately, and receiving increased individual assistance from the teacher and peers that can lead to higher proficiency levels (Lo & Hew, 2017; Van Alten et al., 2019). In one study, Sun et al. (2017) explored the differential effects of a flipped classroom approach and a distance learning course on students' self-regulation and found no significant differences between the two groups except for the help-seeking component of self-regulation.

Learners can variously benefit from flipped instruction. Many studies have highlighted that flipped classes result in higher-order thinking (Hung, 2015), more active learning (Lo & Hew, 2017), more engagement (Li & Li, 2022) and enhanced performance and satisfaction (Chen Hsieh et al., 2017; Davies et al., 2013). Other studies have also suggested that flipped intervention significantly improves learners' motivation (Fathi et al., 2023; Zou & Xie, 2019) and enhances their test performance and learning achievement (Akçayır & Akçayır, 2018). Finally, Hung (2015) confirmed that compared with students in the non-flipped classroom, those in the flipped classroom expended more effort to learn the material on their own. On the other hand, the flipped classroom is not without its concomitant challenges. For example, students who have been accustomed to traditional classes may feel insecure (Lo & Hew, 2017). Also, the production of flipped content with appropriate quality is time-consuming for teachers, not to mention their probable unfamiliarity with technology (Akçayır & Akçayır, 2018). Having adequate access to technology at home is another issue to be considered (Lo & Hew, 2017).

## **Flipped Learning and Listening**

Despite the numerous studies on flipped learning to gauge its effectiveness across the four skills (e.g., Gok et al., 2023; Zhao & Yang, 2023), there are only a few studies regarding the interplay between this mode of instruction and listening comprehension. One example of such investigation is Rajabi et al. (2021), which investigated the impact of flipped classrooms on learners' listening performance and classroom anxiety. The participants in the flipped

group received video podcasts and instructional materials before the class and later engaged in in-class activities. In contrast, the non-flipped group listened to audio files or watched videos during class. While the researchers observed no significant differences in anxiety levels between the two groups, the flipped group scored higher on the listening comprehension test. In a one-group pre-posttest design, Khoiriyah (2021) investigated the impact of flipped classrooms on higher education students' listening proficiency. The participants received four weeks of instruction through lecture videos and listening training websites. The results indicated a significant benefit from the flipped classroom, and students reported that unconventional materials enhanced their motivation, autonomy, and enjoyment of pre- and in-class activities.

The effectiveness of flipped instruction was further explored by Vaezi et al. (2019) in a pre-post-delayed test design study employing three distinct groups. An Authentic Audio Material Group (AAMG), which received original audio materials from websites; a Pedagogical Audio Material Group (PAMG), which received the instructional audio material from commercial textbooks; and a Control Group (CG), which received conventional instruction. The results showed that both flipped groups outperformed the CG in immediate posttest scores. At the same time, while delayed posttest scores indicated a decline for both experimental groups, they still exceeded the CG, suggesting that focused attention on specific linguistic features enhanced listening comprehension.

Amiryousefi (2017) conducted an experimental study to assess the effects of flipped classrooms on L2 listening, speaking, and engagement. The participants were divided into two experimental groups (semi-structured and structured flipped learning) and one control group. The semi-structured group collaborated and agreed on their course materials, while the structured group received instructional content from the teacher. The results indicated that flipping the instruction not only affected improvements in listening and speaking skills but also increased engagement with materials and activities outside the class. In a recent study by Qiu and Luo (2022) with Chinese EFL

learners, the flipped group received materials such as YouTube videos, recorded online classes of previously held classes, and voice-annotated PowerPoints, while the non-flipped group received traditional instruction with the same content. The findings revealed that flipped listening interventions enhanced students' listening performance and reduced their listening anxiety.

## **L2 Listening Anxiety**

One of the factors influencing L2 learners' listening ability is listening anxiety (Chen et al., 2023; Soodmand Afshar & Hamzavi, 2014). From a psychological approach, L2 listening anxiety refers to the feeling of apprehensiveness, tension and stress in listening-related tasks, as well as the lack of confidence in listening (Kim, 2000). Also, the social approach to L2 listening anxiety argues that learners who hold a negative view toward their listening ability believe that they should understand every single word (Vogely, 1998). Anxiety hinders comprehension of all the input since it narrows down attention to principal information at the expense of the periphery (Kim, 2000).

Literature has also shown that learners' apprehension and helplessness in listening stem from a variety of sources. In one investigation, Marzec-Staw (2013) outlined three sources of anxiety: (a) the knowledge-related factors, such as an unfamiliar topic; (b) task-type factors, such as writing an essay; and (c) the output-related factors, such as other's negative evaluation. Other studies have also examined the relationship between L2 listening anxiety and affective and cognitive factors such as motivation (Chow et al., 2018), meta-cognitive awareness (Xu & Huang, 2018) and self-confidence (Zhai, 2015). However, few studies have explored whether instruction type (e.g., flipped) influences the level of L2 learners' listening anxiety. Fathi et al. (2020), for example, recruited a sample of 52 university students who were divided into flipped and non-flipped listening instruction groups. The findings of their study showed that flipped instruction could reduce learners' L2 listening anxiety but failed to influence their L2 listening self-efficacy. More recently,

Bolandifar and Salehi (2024) conducted a study with undergraduate EFL students and found that flipped listening classroom reduced the participants' L2 listening anxiety and enhanced their willingness to communicate.

## PURPOSE OF THE STUDY

A review of the related literature reveals that flipping listening instruction remains a comparatively underexplored area in English Language Teaching (ELT), particularly with respect to its impact on learners' listening comprehension performance and its role in mediating learners' L2 listening anxiety. As such, the current research seeks to reveal how flipping the listening strategy instruction of an IELTS preparation course can impact candidates' listening performance. Three research questions that guided this work are as follows:

- (1) What is the impact of flipped and non-flipped instructions on EFL learners' listening scores?
- (2) What is the impact of flipped and non-flipped instructions on EFL learners' anxiety levels?
- (3) What are learners' perceptions of the flipped class learning experience?

## METHOD

### Participants

To conduct this quasi-experimental study, a sample of 42 Iranian EFL learners at BayaneBarter Education Center, Tehran, Iran was selected as participants. The participants who belonged to two intact classes were randomly assigned to a non-flipped (control) group ( $n = 19$ ) and a flipped (experimental) group ( $n = 23$ ). Of the 23 students in the flipped group, three were screened out as they announced they failed to perform their flipped learning outside the class, resulting in a final sample of 20 learners ( $n = 20$ ). The remaining sample consisted of 16 male and 23 female EFL learners aged 19 to 27 ( $M = 22.25$ ,  $SD = 3.29$ ). The course that the participants had enrolled for was an IELTS



preparation course whose purpose was to build up their listening and speaking skills through improving their general proficiency and, at the same time, recommending the necessary strategies. All the students had previously received conventional English instruction for two years on average. They were informed that given the stress they might be experiencing for the forthcoming IELTS exam, their participation was not mandatory. Ethical considerations were observed throughout the study. Informed consent was obtained, and participants' anonymity and data confidentiality were fully guaranteed. Both groups were taught by a female instructor who had the experience of teaching IELTS courses for four years.

## **Instruments**

### *Listening tests*

Two parallel IELTS listening mock tests were employed, one as a pretest and one as a posttest, to measure the listening proficiency of the participants. These tests included four sections, each designed to mimic the format and content of the official IELTS listening test, with a total of 40 questions per test. These sections assessed various listening skills, such as understanding the main idea, specific information, and the speaker's opinion. The mock tests aimed to provide a realistic simulation of the actual IELTS listening experience, helping to ensure that the participants were tested under conditions similar to those they would encounter in the actual exam. The performance on these tests was scored according to the IELTS band descriptors. The internal consistency of the listening tests was examined using Cronbach's alpha. The results indicated satisfactory reliability for both administrations, with  $\alpha = 0.82$  for the pretest and  $\alpha = 0.79$  for the posttest.

### *Listening anxiety questionnaire*

Listening anxiety was assessed using the Foreign Language Listening Anxiety Scale (FLLAS), adapted from Kimura's study (2017). This questionnaire consists of 27 items rated on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), measuring anxiety related to

self-focused apprehension ( $n = 14$ ) and task-focused apprehension ( $n = 13$ ). The reliability of the questionnaire was confirmed with a Cronbach's alpha of 0.83.

#### *Perception of flipped learning experience questionnaire*

To evaluate the participants' attitudes toward the flipped classroom method, the Perception of Flipped Learning Experience questionnaire was utilized. This questionnaire, adapted from Chen Hsieh et al. (2017), included 14 items rated on a five-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Items measured the four aspects of satisfaction ( $n = 1$ ), perceived effectiveness ( $n = 4$ ), motivation ( $n = 5$ ), and engagement ( $n = 4$ ) in the flipped classroom environment. The reliability of this questionnaire was established with a Cronbach's alpha of 0.88.

### **Course Design**

The course was conducted over a period of five weeks, with two sessions per week, each lasting 90 minutes. The syllabus was developed based on the official IELTS guidelines and included various activities aimed at enhancing listening skills and familiarizing students with the test format. The course syllabus included the following topics:

*Session 1:* Pretest (Mock) + Introduction to the IELTS listening test

*Session 2:* Introduction to different types of listening tasks (conversations, lectures, interviews, and discussions) + Listening for main ideas

*Session 3:* Listening for specific information + Recognizing opinions and attitudes

*Session 4:* Listening strategies + Predicting content + Understanding synonyms

*Session 5:* Multiple-choice questions + Form completion + Listening for numbers

*Session 6:* Matching + Identifying paraphrases + Table completion

*Session 7:* Short-answer questions + Following the speaker + Diagram/map labelling

*Session 8:* Sentence completion + Classification

*Session 9:* Listening for signpost language + Academic monologues + Note completion

*Session 10:* Posttest (Mock)

## **Data Collection Procedures**

### *Flipped classroom*

Pre-prepared video lectures were used as the primary instructional material for the flipped classroom group. These videos were specifically tailored to cover the various listening strategies necessary for the IELTS listening test. The videos were produced by the institute's Research and Development team and presented by the instructor in both the experimental and control groups. Episodes ranged in length from eight to twenty minutes, offering a thorough yet concise presentation of the listening strategies. Each video also included a series of practical exercises the students had to complete. Students in the flipped classroom group were instructed to watch these videos and complete the associated exercises before coming to the class. This pre-class preparation was essential to ensure that students had a foundational understanding of the listening strategies, which would be built upon during in-class activities. The participants completed exercises and submitted them to the instructor before the class session, allowing the instructor to review and provide feedback on the students' work. It is worth mentioning that both groups were taught by a female instructor who had the experience of teaching IELTS courses for four years.

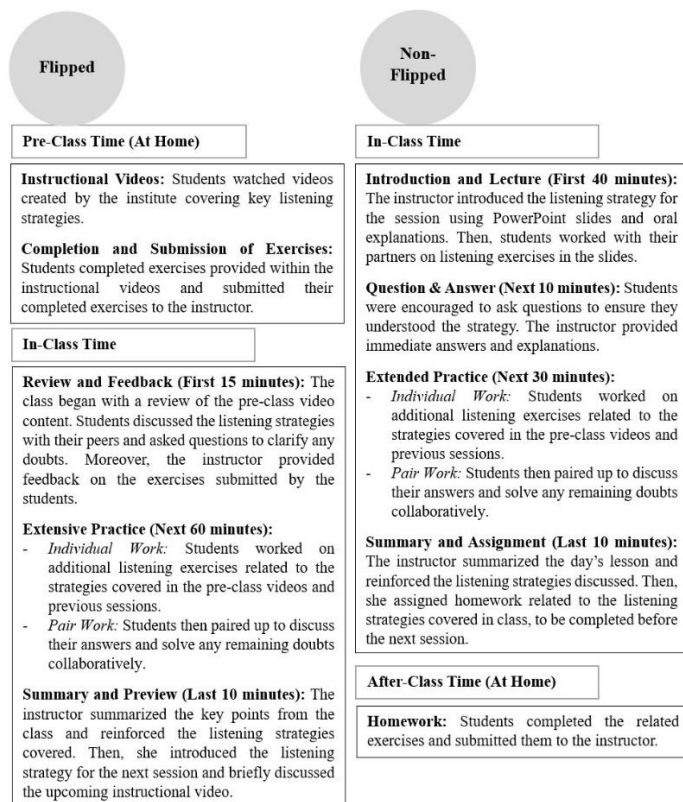
The in-class activities for the flipped classroom group were structured into three distinct phases. In the first phase, which lasted approximately 15 minutes, the instructor began by reviewing the video content and giving feedback to the students' exercises to confirm that they understood the material. The participants could also ask questions about the video content and the listening strategies. The second phase, which took about 60 minutes,

involved extended practice. Initially, the participants worked individually on additional listening exercises related to the strategies covered in the pre-class videos. This individual practice allowed the participants to apply what they had learned and identify areas where they needed further clarification. After completing the exercises individually, the participants paired up to discuss their answers and work through any difficulties together. This peer collaboration encouraged them to learn from each other. The instructor facilitated a class-wide discussion to address any unresolved questions and provide further clarification on the listening strategies and the content of the audio files. In the final phase, which lasted about five to ten minutes, the instructor summarized the key points from the class, reinforcing the listening strategies covered and addressing any remaining questions. The instructor also briefly discussed the upcoming instructional video, giving the participants a preview of what to expect.

### *Non-flipped classroom*

The non-flipped group followed a traditional instructional approach, with all learning activities conducted during the class. The same content and course materials were used for this group, ensuring consistency in the instructional material across both groups. However, instead of pre-class video lectures, the instructor presented the content through in-class lectures using PowerPoint slides and oral explanations. In the first phase of the non-flipped classroom, which lasted approximately 40 minutes, the instructor introduced the listening strategy for the session using PowerPoint slides. This included a detailed explanation of the strategy, with examples, practical tips, and some exercises. These exercises mirrored those provided in the flipped classroom's pre-class video activities, ensuring consistency in the content and difficulty level of the exercises. The participants were then given ten minutes to ask questions in a Question-and-Answer phase to ensure they had understood the strategy. The instructor provided immediate answers and explanations, addressing any misunderstandings. In the third phase, which lasted approximately 30 minutes, the participants worked individually on additional listening

exercises. After completing the exercises individually, they paired up to review their answers and discuss any discrepancies. The instructor then led a class-wide review of the exercises, providing correct answers and explaining challenging questions. This phase allowed the participants to consolidate their learning and address any remaining areas of confusion. In the final phase, which lasted about ten minutes, the instructor summarized the day's lesson, reinforcing the listening strategies discussed. She finally assigned related tasks as homework.



**Figure 1.** Instructional Processes of the Flipped and Non-Flipped Classrooms

## Data Analysis

All test and questionnaire data were analyzed using Statistical Package for the Social Sciences (SPSS Version 22). Paired-samples t-tests were used to determine whether listening scores and anxiety levels changed from the pretest to the posttest in both instructional conditions. In addition, two analyses of covariance (ANCOVA) were run to compare the posttest performance of the flipped and non-flipped groups while statistically adjusting for baseline differences in listening and anxiety.

Prior to conducting the analysis, several diagnostic checks were carried out to ensure the appropriateness of the statistical tests. The assumptions of linearity and homoscedasticity were met, and the Shapiro-Wilk tests indicated that the distributions did not indicate serious departures from normality. Variance inflation factor values were all greater than 1, suggesting no multicollinearity among variables (Pallant, 2013). The preliminary analysis also confirmed the equality of covariance matrices and parallel regression slopes, validating the use of ANCOVA for the comparative analyses (Huberty & Petoskey, 2000).

## RESULTS

### *RQ 1: The Effect of Flipped and Non-Flipped Instruction on Listening Comprehension*

To address the first research question, paired-samples t-tests were conducted for each instructional group. Effect sizes were also computed to estimate the magnitude of the observed changes, with values of approximately 0.40 indicating small effects, around 0.70 reflecting moderate effects, and 1.0 or higher representing large effects (Plonsky & Oswald, 2014). Descriptive statistics revealed that mean listening scores increased from the pretest to the posttest in both conditions (Table 1). Furthermore, the paired-samples t-test suggested that not only did the participants who received flipped instruction significantly improve their performance on the posttest compared to the pretest [ $t(19) = -7.87, p < 0.001$ , Cohen's  $d = 0.56$ ], but also those in the non-

flipped instruction could increase their mean score significantly [ $t(18) = -6.27, p < 0.001$ , Cohen's  $d = 0.42$ ].

**Table 1.** Descriptive Statistics and t-test Results for Listening Comprehension Scores

	Pretest		Posttest		t-test		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	df	Sig. (2-tailed)
Flipped ( $n = 20$ )	5.153	.315	6.384	.582	-7.878	19	< .001
Non-flipped ( $n = 19$ )	5.392	.446	6.107	.525	6.276	18	< .001

Although the flipped group obtained a slightly higher mean at the posttest ( $M = 6.38$ ) than the non-flipped group ( $M = 6.10$ ), an ANCOVA was run to determine whether this difference remained significant after controlling for the pretest performance (Table 2). The results confirmed a statistically significant advantage for the flipped instruction,  $F(1, 24) = 4.98, p = 0.035$ , partial  $\eta^2 = 0.17$ .

**Table 2.** ANCOVA Results for Listening Comprehension Scores

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial Eta Squared
Corrected Model	2.364	2	1.182	4.873	.017	.289
Intercept	.888	1	.888	3.663	.068	.132
Listening Pretest	1.845	1	1.845	7.607	.011	.241
Groups	1.208	1	1.208	4.982	.035	.172
Error	5.821	24	.243			
Total	1059.750	27				
Corrected Total	8.185	26				

Overall, the results showed that both instructional formats enhanced learners' listening performance, but the flipped approach yielded a stronger improvement.

### ***RQ 2: The Effect of Flipped and Non-Flipped Instruction on Listening Anxiety***

To investigate whether the mode of instruction (i.e., flipped vs non-flipped) had reduced the anxiety level of the participants, paired-samples t-tests for

the pretest and posttest scores were conducted (Table 3). The results of descriptive statistics showed that the listening anxiety mean score for the flipped group decreased from 3.25 on the pretest to 1.97 on the posttest. In a similar manner, the participants' listening anxiety level in the non-flipped group was reduced from 3.50 to 3.35. Further analysis demonstrated that the flipped group could significantly decrease their anxiety level over time with a small effect size [ $t(19) = 16.66$ ,  $p < 0.001$ , Cohen's  $d = 0.29$ ], while the same results were not replicated for the non-flipped group [ $t(18) = 2.01$ ,  $p = 0.066$ ].

**Table 3.** Descriptive Statistics and t-test Results for Anxiety Level

	Pretest		Posttest		t-test		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Flipped ( $n = 20$ )	3.256	.352	1.971	.249	16.669	19	< .001
Non-flipped ( $n = 19$ )	3.500	.274	3.352	.385	2.011	18	.066

Additionally, a one-way between-groups ANCOVA was performed to compare whether one mode of instruction was more successful than the other in reducing participants' listening anxiety scores. Table 4 presents a detailed breakdown of the findings across the groups.

**Table 4.** ANCOVA Results for Anxiety Level

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial Eta Squared
Corrected Model	13.848	2	6.924	98.190	.000	.891
Intercept	.059	1	.059	.842	.368	.034
Anxiety Pretest	.990	1	.990	14.043	.001	.369
Groups	8.737	1	8.737	123.903	.000	.838
Error	1.692	24	.071			
Total	210.572	27				
Corrected Total	15.540	26				

For listening anxiety scores, the instruction mode had a marked impact on participants' feelings of anxiety,  $F(1, 24) = 123.90$ ,  $p < 0.001$ , partial  $\eta^2 = 0.83$  (This large effect size should be interpreted with caution given the sample size). Even after controlling for initial levels, there was a pronounced difference between the two instruction types across anxiety level.



### ***RQ 3: Learners' Perceptions of the Flipped Learning Experience***

Learners' attitudes toward the flipped instruction were explored using the Perception of Flipped Learning Experience questionnaire, and the results were summarized using descriptive statistics. As indicated in Table 5, mean ratings for all components exceeded the scale midpoint of 3. Among the four components, effectiveness received the highest rating ( $M = 4.31$ ), whereas engagement, though still high, showed the lowest mean ( $M = 4.07$ ). These results suggest that the participants generally held favorable views toward the flipped format.

**Table 5.** Descriptive Statistics of the Perception of Flipped Classroom Experience

	No. of items	Min	Max	<i>M</i>	<i>SD</i>	Mode
Satisfaction	1	3	5	4.315	.671	4
Engagement	4	2	5	4.078	.812	4
Motivation	5	2	5	4.178	.651	4
Effectiveness	4	2	5	4.434	.660	4

Analysis of the satisfaction items revealed that 93% of learners (strongly) agreed that reversing the instructional sequence increased their satisfaction. Similarly, 83% reported that the flipped format encouraged greater involvement in class activities and more active engagement with tasks. With regard to motivation, the majority of the participants (strongly) agreed that the flipped learning intervention had raised their motivation to participate in pre-class and in-class activities. Finally, 90% of the participants found that the flipped intervention is more effective than the conventional instruction to improve their listening comprehension.

## **DISCUSSION**

The purpose of the current study was to enrich our understanding of how flipping instruction influences listening scores and L2 listening anxiety among EFL learners. The results revealed three main findings. First, it was

demonstrated that the participants honed their listening performance as a result of receiving either flipped or non-flipped instruction, though the former resulted in a higher gain. This is in congruence with a number of previous (meta-analytic) studies testifying to the positive effect of flipped instruction on L2 learning (Turan & Akdag-Cimen, 2019) and, more specifically, on L2 listening comprehension (Qiu & Luo, 2022; Rajabi et al., 2021). The results of the current study also seem to confirm the findings of a study carried out by Amiryousefi (2017), which revealed that flipping the instruction by sending the audio and video files to the students before the class cultivates their listening and speaking abilities. One probable reason for the superior performance of the flipped group could be that this mode of instruction urges “interaction with content” prior to the class (Jiang et al., 2020) as learners can watch the videos that explain the listening strategies and depict how to employ them through practice items. Also, during the pre-class interaction with content, the participants can replay and pause the videos as many times as they deem necessary, a characteristic which is absent from traditional teacher-centered instruction due to insufficient time. The pre-class self-learning component of flipped intervention instantiates features of personalized learning as it caters to students with various proficiency levels, takes into account their diverse L2 learning experiences, and allows for self-regulated, self-paced learning (Jiang et al., 2020). Therefore, positive outcomes of flipped classrooms come as no surprise.

Another feature of flipped learning intervention, which might have contributed to its effectiveness in improving listening scores, is learners’ active role in class. The participants of our study who had received pre-class curricular content were encouraged to actively bring what they had acquired to bear on what they were supposed to learn through group discussions and doing more practice (Van Alten et al., 2019). Accordingly, learners in the flipped group demonstrated superior listening skills and performance as they shared knowledge and solved their encountered problems cooperatively. Furthermore, increased time on task as a result of devoting class time to extra activities might be cited as another positive influence of flipping the class.

Next, the findings addressing the second research question revealed that flipping the instruction effectively alleviated the listening anxiety of Iranian EFL learners; however, the participants in the non-flipped group had nearly the same level of anxiety before and after the instruction. These findings are on a par with those of other studies that found a significant decrease in anxiety levels of participants in the flipped group (Gok et al., 2023) and, more specifically, with the few studies that showed the positive effect of flipped instruction on reducing L2 learners' listening anxiety (Bolandifar & Salehi, 2024; Fathi et al., 2020). As a demonstration, Qiu and Luo (2022) found that the experimental group, who watched the video clips and received voice-annotated PowerPoints before the class, was less nervous than the control group that was taught traditionally. On the other hand, our findings contradict Rajabi et al. (2021), who found no significant difference between the listening anxiety levels of the group receiving video podcasts and the control group taught using traditional methods.

One interpretation of the obtained results might be that in the flipped classroom the participants are in control of the classroom activities since they obtain the primary information about listening strategies before attending the class. The increased sense of controllability stems from the sufficient time that learners have, compared to traditional classes, to watch the digital content and carry out the related activities, allowing them to more fully concentrate on listening strategies. More specifically, the potential of flipped instruction to give learners greater autonomy as to how they choose to deal with the curricular content can enhance their sphere of influence on the anxiety-provoking factors in this environment (Liu, 2022). This contention is also supported by the control-value theory (Pekrun, 2006), which posits that the degree of control learners exert over the task at hand determines their feelings in the language classroom.

It can also be argued that flipped intervention has decreased EFL learners' anxiety through developing reciprocity and cooperation among them (Qiu & Luo, 2022). This reduction could be attributed to learners pursuing the same goals and helping each other achieve those goals. Moreover, whereas in

conventional classes learners feel anxious to share contrasting perspectives with the class and run the risk of being criticized, flipped classes offer support and encouragement to learners by having them share their ideas in small groups, thus reducing learners' apprehensiveness (Gok et al., 2023). It can be deduced then that being part of a group helps learners to gain self-confidence. In addition, Davies et al. (2013) pinpointed that gaining prior knowledge related to the content allows learners to check and analyze their responses and to be primed for unpredictable situations in the classroom. These affordances of flipped instruction can also decrease EFL learners' apprehension.

Concerning the third research question, the participants' responses showed their positive attitude toward flipped intervention, validating the implementation of flipped instructional design for language learning. The results indicated that flipped instruction motivated the participants to learn the material, enhanced their engagement with the learning material, satisfied learners with the learning process, and enhanced their learning more effectively. These findings concur with those of the previous studies (Amiryousefi, 2017; Chen Hsieh et al., 2017) which approved the positive attitude of learners toward flipped instruction. The relatively high satisfaction of learners in the flipped intervention group may indicate that their expectations of the course design, teaching practice and learning environment have been met (Huang & Wang, 2012). This satisfaction may have been derived from the opportunity that flipped instruction provides students with the opportunity to learn independently. Independent learning occurs when students can take control of their learning as in flipped instruction where students have access to instructional materials and thus can manage their learning anywhere, anytime. Moreover, by participating actively in discussions and interacting with others, learners are more likely to create relatedness between themselves and with the instructor. Also, as it was stated before, flipping the class allows for more class time to be utilized for the cultivation of knowledge, facilitating students' need for competence. As such, given that flipped instruction grants autonomy to learners, satisfies the need

for competence, and creates relatedness, this mode of instruction can entice motivation in learners (Abeysekera & Dawson, 2014).

Learners also revealed that they spent more time learning the materials, which is supported by Li and Li's (2022) study. This stems from the nature of flipped instruction, which requires learners to assume more responsibility for their learning (Roehl et al., 2013). The nature of flipped learning intervention allows students to arrive in class with a basic background gained from their prior access to curricular content, ready to engage effectively with the instructor and other learners to consolidate their initial learning (Kukulska-Hulme & Viberg, 2018). Also, according to Wright and Lawson (2005), bridging out-of-class and in-class work drives students to try harder to prepare for the class and to collaborate with classmates outside of regular class time. This being so, flipped instruction relies on learners' agency to participate in active learning and application, leading to their cognitive, behavioral, and agentic engagement.

## CONCLUSION AND IMPLICATIONS

The current study validated that flipped learning intervention has the potential to enhance L2 listening performance and reduce L2 listening anxiety. The findings also revealed that the participants were quite satisfied with this mode of instruction. Overall, the results indicated a need for a pedagogical shift through which conventional teaching models are superseded with more innovative approaches, which are motivating and engaging. It is then recommended that flipped instruction be applied to boost learners' language ability and L2 listening comprehension in particular. This requires instructors to dispense with their traditional role as transmitters of knowledge and instead adopt a facilitative role by giving learners the necessary advice and teaching them useful strategies to be applied in the appropriate contexts. With enough guidance and practice in a comfortable context, learners cannot only improve their listening performance but also lower their anxiety levels.

Altogether, the findings of our study have some pedagogical implications. First, given that flipped classroom leads to higher engagement rates, teachers can opt for this mode of instruction in educational contexts where attendance is not compulsory. Second, the flexible timing of flipped instruction allows for differentiated education by providing learners with the instructional material prior to the class, thus enabling teachers to develop an understanding of the aspects in which learners require further help and reinforcement. As such, when students in the class have diverse needs and preferences, instructors can incorporate flipped intervention into language learning classes to generate more desirable outcomes. Third, regarding anxiety, Horwitz et al. (1986) proposed that one of the strategies to cope with learner anxiety is to provide a less disruptive classroom environment and contended that “as long as FL (foreign language) acquisition happens in a formal school environment where evaluation is inextricably linked to success, anxiety is likely to flourish” (p. 131). Considering that flipped intervention has the potential to alleviate L2 learners’ listening anxiety, this mode of instruction can be successfully employed to create a stress-free environment which boosts learners’ engagement and motivation. The findings also suggest that flipped listening strategy instruction can be particularly beneficial in high-stakes test preparation contexts such as IELTS, where learners often experience heightened anxiety. By shifting initial strategy instruction to the pre-class phase, classroom time can be used for guided practice, clarification, and feedback, which may reduce performance pressure and create a more supportive learning environment. This approach allows instructors to identify learners’ listening difficulties more effectively and provide targeted scaffolding during class, thereby addressing both performance and affective needs.

Despite the contribution our study makes to the field, we must be cautious about extending our claims. First, the quantitative data collected may provide an incomplete picture of the flipped intervention’s influence. As a result, future studies should consider employing quantitative and qualitative methods to explore in more detail the practical challenges EFL learners

encounter during course implementation. Second, the questionnaire focused solely on students' perceptions of flipped listening intervention, neglecting the instructors' perspectives. Investigating teachers' attitudes toward flipped instruction, including the challenges of using technology and managing online materials, is essential. Third, a new line of research should be undertaken to comparatively investigate which online learning environment or type of digital content yields more fruitful outcomes for L2 listening instruction. Fourth, while flipped instruction benefits intermediate and above-intermediate learners, further studies are needed to determine its effectiveness for low-proficiency learners. Finally, future studies should explore the impact of flipped intervention on other forms of anxiety, such as speaking, reading, and writing anxiety.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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