



---

## **The Efficacy of Using the Flipped Classroom Model on Fluency of Foreign Language Learners' Speech**

**Maryam Eghbali Khajani**

*Department of English Language & Literature, Yazd University, Yazd, Iran*  
*m.eghbali1993@gmail.com*

**Golnar Mazdayasna\***

*Department of English Language & Literature, Yazd University, Yazd, Iran*  
*gmazdayasna@yazd.ac.ir*

### **Abstract**

The current study was an attempt to investigate the effectiveness of the flipped classroom model on the fluency of foreign language learners' speech. To this end, fifty undergraduate English Language and Literature students, who had enrolled in a "Listening & Speaking" course, participated in this study. Data were collected through a one-group pre-posttest design and semi-structured interviews. Two raters assessed the learners' four oral presentations. The Praat software and one-way repeated measure ANOVA were used for data analysis. The results showed that the flipped classroom model could significantly develop students' oral fluency. Meanwhile, the findings of the semi-structured interviews indicated that the students were delighted with this approach. From their perspectives, the cooperation and collaboration between students and teachers were undeniable. They also believed that their self-confidence increased. Correspondingly, the results suggest that the language instructors and stakeholders at any level can benefit from this approach, i.e., flipped classroom model to shift the instruction to a practical learner-centered approach.

*Keywords: Flipped Classroom Model; Foreign Language Learners; Oral Fluency; Speaking Proficiency*

## 1. Introduction

Developing speaking skills is extremely important in foreign language learning because the learners' speaking level is the most prominent and evident aspect of their language proficiency. On the other hand, speaking is a difficult skill to be mastered, and EFL learners encounter many problems while speaking. They have few opportunities for practicing English outside the classroom, and they do not always have access to English users with whom to converse. Consequently, after several years of studying English, some of them cannot speak even a simple sentence fluently.

In some contexts, EFL learners are considered skilled and successful English learners if they can speak fluently and effectively, so oral fluency is their inevitable need. As [Derwing et al. \(2004\)](#) highlighted, fluency is essential for EFL learners' speaking. There are many reasons for this matter. For instance, the learners may be willing to speak confidently to other English users, or they may need to pass an English-speaking test. Therefore, teachers should consider these reasons and use the most appropriate method to develop the learners' oral fluency.

Today, with technology development, teachers seek new and modern teaching methods to have more active learners who have mastered language learning skills, especially speaking. The flipped classroom model (FCM) is one popular approach, defined as "which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class" ([Bergmann & Sams, 2012](#), p.13). This method allows teachers to use different approaches in their classrooms more practically and provide an environment similar to the school at their homes for learners with the help of technology and cellphones apart from place and time. This independence from time and location provides ubiquitous learning outside the classroom without any formal and pedantic limitations ([Jalilifar & Mashhadi, 2013](#)).

In traditional classrooms, the teachers know that some students may not comprehend some main points or even the entire content of the lesson. Still, their time is insufficient to pay attention to each student and monitor their learning process individually. Indeed, teaching in traditional approaches is limited only to class time and in-class activities, while developing language skills, especially speaking and fluency takes longer. By the way, teachers seem to make efforts to develop an innovative method to have significantly more interactive time to guide students, assist them in tackling their problems and control their activities.

Although some researchers have addressed the flipped classroom model's effectiveness in improving language and even speaking skills (e.g., [Lin & Hwang, 2018](#); [Wu et al., 2017](#)) the impact of this method on developing oral fluency has been scarcely examined. Therefore, this study clarifies how the flipped classroom model can improve EFL learners' oral fluency. Besides, the participants are inquired about the efficacy of this method on their oral fluency levels.



In this study, the following research questions were proposed:

RQ<sub>1</sub>: Does Flipped classroom model affect the EFL learners' oral fluency?

RQ<sub>2</sub>: What are the EFL learners' attitudes and beliefs regarding the flipped classroom model?

## **2. Literature Review**

### *2.1. Speaking Proficiency*

Speaking is the most commonly used skill in communication among the skills of language proficiency (Rivers, 1981). Through this skill, people can interact with each other based on their needs and goals. Therefore, developing speaking skills is very important in EFL/ESL courses, and achievements in mastering a language are usually measured concerning the capability to handle a conversation (Burkart & Sheppard, 2004; Nunan, 1999).

In her investigation into developing English language speaking skills, Torky (2006) listed four sub-skills that language learners should acquire to be mastered in speaking skills, namely "linguistic competence, discourse competence, pragmatic competence, and fluency" (pp. 30,31). Each of these sub-skills comprised some competencies too. Linguistic competence involves using appropriate vocabulary, correct grammatical rules, and intelligible pronunciation. Discourse competence included coherent, coherence, and managing conversation effectively. Pragmatic competence means taking the context and registering it into account. Finally, fluency demonstrates an acceptable extent of speech without hesitation. The focus of the current study is on developing oral fluency.

### *2.2. Oral Fluency*

Although fluency is among the most widely used notions in EFL societies, it is not easy to define precisely. The researchers presented different meanings for this concept based on their theoretical frameworks. As Fillmore (1979) argued, the capability to talk full time without pause is a kind of oral fluency. In this way, when people say that John speaks French fluently or is fluent in French, it means John does not stop many times to think about what to say next or how to phrase it while speaking in French.

Oral fluency is the capability to talk fast, accurately, and without unnecessary hesitation (Zhang, 2009). Lennon (1990) stated that in EFL communities, oral fluency is argued in two senses: broad and narrow. The former refers to "oral proficiency, the highest point on a scale that measures spoken command of a foreign language." The latter refers to "native-like rapidity" or speaking flowingly, which means "speak(s) correctly but not very fluently" (p. 389-390).

De jong and Wempe (2009) draw our attention to three possible dimensions of oral fluency: namely, speech fluency which refers to "speech rate, measured by dividing the number of syllables by the amount of total time of speaking" (p.

385), breakdown fluency which comprised of number, length, and distributions of pauses in speech, and finally repair fluency which included false starts and repetitions. In this way, their study has profoundly influenced defining oral fluency.

Preliminary works in this field appear to be disputable regarding subjective assessment. The teachers and researchers assessed the learners' fluency and relied on their considering elements. Gradually, some researchers (e.g., [Derwing et al., 2004](#); [Kormos and Denes, 2004](#); [Lennon, 1990](#)) began to utilize more objective measures to assess speech fluency.

These studies had some similarities and differences from each other. In all of these studies, raters assessed the progress of the learners' oral fluency by listening to the samples of participants' speech and using an objective rating scale. [Lennon \(1990\)](#) investigated four English learners' oral fluency who stayed in the native environment for a while. [Derwing et al. \(2004\)](#) examined the oral performances of 20 EFL learners on different occasions, and [Kormos and Denes \(2004\)](#) chose 16-second language learners with varying levels of fluency as their participants. Also, the number and expertise of the raters differed in each of these studies. [Lennon \(1990\)](#) was assisted by nine native-speaking raters, while [Derwing et al. \(2004\)](#) used 31 "untrained judges" and six English as a foreign language teachers (three native and three non-natives) to help [Kormos and Denes \(2004\)](#).

More recent studies in this area (e.g., [De Jong et al., 2012](#); [Pre'fontaine & Kormos, 2015](#); [Thai & Boers, 2016](#)) utilized a more reliable way of speech analysis. They used Praat software which Paul Boersma and David Weenink invented (see <http://www.fon.hum.uva.nl/praat/>). [De Jong and Wempe \(2009\)](#), who presented a script for analyzing fluency measures by Praat, proved its reliability.

In their study, [De Jong et al. \(2012\)](#) investigated how task complexity influences three types of fluency (breakdown fluency, speed fluency, and repair fluency). They separately examined breakdown and speech fluency by calculating articulation rate (the number of syllables divided by phonation time) for measuring speech fluency.

[Pre'fontaine and Kormos \(2015\)](#) conducted the same study on French learners' fluency with different data collection methods. They used quantitative and qualitative data and calculated "articulation rate, pause frequency, phonation-time ratio, and the average length of pauses" (p. 101). Besides, [Thai and Boers \(2016\)](#) investigated the impact of task repetition on foreign language learners' fluency. To this end, they calculated the "raw speech rate, trimmed non-phonation/time ratio" (p. 376). However, these studies have ignored that pauses frequently occur in spontaneous speech compared to reading a text. As mentioned by [Cucchiarini et al. \(2002\)](#), "articulation rate and mean length of silent pauses



have almost no relationship with perceived fluency in spontaneous speech" (p. 2871).

### *2.3. The Flipped Classroom Concept*

The flipped classroom model is an instructional method in which conventional in-class and out-of-class activities are reversed (Sletten, 2015). Moreover, the delivery of content that traditionally takes place in-class sessions is presented online as digital lectures. Customarily, homework assignments are accomplished collaboratively during class hours as learning exercises (Bergmann & Sams, 2012). Consequently, students should watch the pre-recorded video lectures based on the course topics before attending class, then participate in group or individual learning activities during class sessions.

So FCM is a hybrid method in which teachers can use the time of class sessions for much more learning activities in favor of providing conventional classroom lectures for the learners at home (Missildine et al., 2013). Respectively, learners do passive activities (namely viewing the lessons and taking notes) at home and engage actively with the materials (e.g., participating in discussions, doing problem-solving activities, and critical thinking activities) in-class sessions (Wong & Chu, 2014).

In sum, within the flipped classroom, the students should watch the instructional videos and podcasts at home, come to class well-prepared, and participate actively in-class sessions. FCM aims to shift the attention from the teacher to the students (Bergmann & Sams, 2012), and it is a learner-centered approach (Davis, 2013). Indeed, in this approach, the teacher's role is a learning guide instead of a content deliverer—the student's role changes from passive recipients of knowledge to active participants in the discovery and understanding process.

Several attempts carried out in this area enumerated some benefits for FCM. For instance, Mason et al. (2013) believed that by flipping the classroom, teachers could cover more materials, and students who are educated in this way adapt themselves to the course programs quickly and enjoy learning more than before. According to Herreid and Schiller (2013), FCM is an effective method that shifts the teaching process from time-consuming teacher-based instruction to a practical learner-centered approach.

Based on Brunsell and Horejsi's argument (2013), this method provides more opportunities for learners to present their ideas and participate increasingly in their class activities. Developing learners' autonomy (Marchionda et al., 2014), fostering their critical thinking and problem-solving skills (McLaughlin et al., 2013), and motivating them in learning processes (Davies et al., 2013) are also other some remarkable benefits of this method.

The flipped classroom model has been criticized and vigorously challenged regardless of all the mentioned benefits. Tsang and Harris (2016) claimed that learners might not appreciate this learning process or distinguish between traditional and current activities because students usually memorize information expressed by the teacher and have to rely on themselves in the latter. In other words, self-regulation, an attribute of the flipped classroom, is not taught in the traditional type of learning. Indeed, teachers encounter many problems with less-motivated students because they cannot quickly adapt to the learning process change, and they think that doing additional tasks is burdensome. So they may even come to class sessions without preparation (Bauer-Ramazani et al., 2016; Herreid & Schiller, 2013; Springen, 2013).

The teacher should spend a significant amount of time preparing standard videos and materials (Enfield, 2013) because, as Milman (2012) mentioned, the quality of the materials designed by teachers helps to process learning. If their quality is poor, the students will not be able to understand the content of the materials and cannot prepare themselves for their learning activities. In this respect, Bergmann and Sams (2012) recommended that teachers, before beginning a flipped classroom, learn how to make a good video and ask their colleagues to watch their made videos and critique them.

Another obstacle FCM faces is technology availability (Blair et al., 2016). Digital tools such as the internet or computers may not be accessible to all the students. If the course materials are only presented online, these students cannot keep up with their peers. To circumvent this problem, the teachers should provide handy supplementary materials such as a CD, flash drives, cell phone apps, and notes to provide equal learning opportunities for all students (Bergmann and Sams, 2012).

### **3. Methodology**

#### *3.1. Design*

In the current study, an "explanatory sequential mixed method design" was used (Creswell & Clark, 2018, p. 101) to investigate the influence of using the FCM on the developing speech fluency of EFL learners and determine the learners' attitudes and beliefs toward this experience. In the explanatory sequential mixed method, quantitative and qualitative data are collected and analyzed distinctly. Through this design, at first, the researcher collects quantitative data. Then these data are followed up with the results of qualitative data to be clarified precisely (Creswell & Clark, 2018).

Quantitative data of this study was obtained through an intact-group pre-posttest design. A pre-test was conducted before the start of the flipped instruction. Then, two tests were given along the term. After the flipped instruction was complete, a post-test was administered. Semi-structured



interviews were also conducted with students who participated in the study to gather qualitative data (Appendix 1).

### *3.2. Participants*

Fifty-four undergraduate English language and literature students, who had enrolled in the course entitled "Listening & Speaking" throughout the second semester of the academic year 2018-2019 at an Iranian State University, participated in this study. Four students were excluded from the study due to their infrequent participation in data collection sessions. The performances of the other 50 students who regularly participated in all sessions, including 13 males and 37 females, were evaluated and examined statistically.

It was impossible to divide the participants into two groups, namely control and experimental groups for one semester. Therefore, the participants were treated as one group. All these participants enrolled in the same course taught by the same teacher. Thus, there were no differences between these two groups regarding exposure to materials and the time spent teaching them how to develop their speech fluency.

### *3.3. Materials*

The first material utilized in this course was the book by Dunkel and Pialorsi (2005). This book has five units, and each unit has a different number of chapters. The teacher chose this book because of its appropriate topics, and as Cheung (2010) suggested, listening is a prerequisite to other skills, namely speaking skills.

On the other hand, listening and speaking skills should always be kept in coordination with one another, and they cannot be separated from one another (Celik & Yavuz, 2015). Moreover, the participants were enrolled in the "Listening & Speaking" course. Therefore, they need to develop these two skills concurrently. The book was accompanied by some supplementary materials, such as some videos and audio tracks.

Besides, the instructor used PowerPoint software, a presentation program and one of many programs run by Microsoft, to make slides that presented each lesson's summary, main points, and new vocabulary. The researcher explained each slide as voice tracks recorded directly via the Telegram messenger. Also, some appealing and related podcasts (downloaded from YouTube) were used as instructional materials. Finally, the students' tests were analyzed by Praat software in order to check the fluency measures. Praat is a digital software used for labeling and segmenting speech records.

### *3.4. Instruments and Procedure*

#### *3.4.1. Tests*



At the beginning of the semester, the students' first performance, each student's preliminary oral presentation of the first chapter of the book, was regarded as their pre-test. Meanwhile, the researcher informed all the students about the flipped classroom model and described it in detail, and the students received instructions and guidelines about learning the materials.

Besides, the students were asked to choose a social media accessible to all as an online platform for sharing the materials, and they selected the Telegram messenger unanimously. The instructor created a Telegram group. Next, the treatment, i.e., FCM, was started to be implemented, as explained in detail in the following section. The treatment took place for 14 weeks. Then, two progress tests were given along the treatment; and a post-test was administered.

#### 3.4.2. Semi-structured Interview

The semi-structured interview was the second instrument the researcher utilized to investigate the experimental group students' beliefs and attitudes toward the efficacy of using a flipped learning method on the development of their speaking skills at the end of the semester. The researcher interviewed each participant for about 20 minutes. Appendix 1 illustrates the interviewer's questions.

#### 3.4.3. Procedure of the flipped classroom

According to [McLaughlin et al.'s](#) perspective (2016), there are three core phases for a flipped classroom: pre-class activities, in-class activities, and post-class activities or assessments.

During the first phase, the instructor of the current study designed or utilized the digital materials based on the course topics and the students' needs, comprising PowerPoint slides, podcasts, video clips, and audio tracks, shared them in the Telegram group, and asked the students to study all the materials and come to the class well-prepared. Also, they were asked to watch the visual materials (PowerPoint slides, videos) first to comprehend the main theme of the whole text. Next, they had to listen to the audio materials and prepare a summary of the topic as an oral presentation before the class session.

In the second phase, during class time (two sessions or 180 minutes once a week), the students had the opportunity to use the in-class time to work on more engaging activities and be more active instead of passively listening and note-taking ([Jeong & González-Gómez, 2016](#)).

Moreover, they were given enough chances to apply what they learned in meaningful and authentic settings ([Wu et al., 2017](#)). Indeed, each student engaged in classroom activities by making a three-minute oral presentation, participating in class discussions individually or in groups, and sharing their ideas with their classmates. The teacher, on her behalf, solved students' problems, answered their





questions, motivated the learners for group discussions, and challenged those students who had mastered the content.

Finally, the last phase consisted of feedback and projects. After the class session, the researcher gave feedback to the students individually in a private manner via Telegram Messenger, and the students were supposed to give their opinions and suggestions for improving future activities. Moreover, they could ask their questions, and the researcher guided them. Concerning the project, once a fortnight, the researcher sent the students a podcast related to previous topics and asked them to talk about that topic, record their voices, and send her their voice tracks.

### 3.5. Data Analysis

The idea was that the performances of Iranian participants alone across four tests without an appropriate criterion could not provide sufficient justification for the extent of influences of using a new approach on their foreign language fluency. Therefore, the researchers asked two native English speakers (one male and one female) to do the tasks (oral presentation about the topics) for comparison. They are supposed to speak about the topics for three minutes after reading some related notes and recording their voice.

Moreover, all four oral presentations of each participant were audio-recorded in the language laboratory and transcribed for further analysis. Then, all recorded voices were analyzed by Praat software by using a script designed by [De Jong and Wempe \(2009\)](#). As mentioned by [Cucchiarini et al. \(2002, p. 2871\)](#), "rate of speech, phonation/time ratio, number of silent pauses per minute, duration of silent pauses per minute, and mean length of runs" are the most outstanding quantitative fluency measures (see Table 1).

**Table 1**

*Definition of Quantitative Fluency Measures (Cucchiarini et al.,2002)*

Name	Definition
Speech rate	The number of syllables divided by the total time
Phonation/time ratio	(Phonation time <sup>1</sup> divided by total time) ×100
Number of silent pauses per minute	The number of silent pauses divided by the total time
Duration of silent pauses per minute	The total duration of all silent pauses divided by the total time
Mean length of runs	The number of silent pauses divided by the number of syllables

\* Note: Silences of  $\geq 250$ ms were taken into account.

<sup>1</sup> Phonation time is the duration of speech time without silence or pause

Regarding the first research question, which sought the influence of utilizing the FCM on the fluency of foreign language learners' speech, the students' oral performances across the four tests were scored by two raters in order to apply inter-rater reliability. They scored the learners' performances according to how close their speech fluency was to the fluency of native speakers. The praat software showed an illustration about rate of speech, phonation/time ratio, number of silent pauses per minute, duration of silent pauses per minute, and mean length of runs. The raters compared the learners' extent of measures with the native speakers' measures. Then, they scored them. For example, the fewer pauses in the learner's speech, help him/her to get higher scores.

Indeed, two raters compared the participants' performances with the native speakers regarding the extent of the speech rate, phonation/time ratio, number of silent pauses per minute, duration of silent pauses per minute, and mean length of runs. They scored each measure from 0 (no similarity) to 4 (high similarity) based on the closeness to the native persons' extents of measures. For example, fewer pauses in the learners' speech help them to get higher scores. The participants' scores on each test might range from 0 to 20. The results of the inter-item correlation between two raters demonstrated a high degree of reliability between the two raters, ranging from .92 to .96 on the four tasks, which was satisfactorily high. Moreover, one-way repeated measure ANOVA was conducted to measure the efficacy of using the FCM on foreign language learners' speech fluency.

Besides, the results of the semi-structured Interview were analyzed and interpreted qualitatively. The researchers transcribed the interviewees' answers and highlighted what they mentioned more. Then, their inferred meanings were written.

## 4. Results

### *4.1 Results of One-Way Repeated Measure ANOVA*

As mentioned before, the first research question investigated the efficacy of using the FCM on EFL learners' speech fluency across four tests (oral presentations). To this end, one-way repeated measures ANOVA was conducted. Table 2 demonstrates the descriptive statistics of students' scores on four oral presentations regarding their fluency development, including the means, standard deviations, and the number of participants during four-time intervals.

**Table 2**

*Descriptive Statistics of Students' Performances Across Four Tests*

Tests	Mean	Std. Deviation	N
Test 1	10.74	2.988	50
Test 2	11.70	2.667	50
Test 3	12.68	2.369	50



Test 4	14.12	2.076	50
--------	-------	-------	----

Table 2 reveals that the minimum mean score for fluency development of the first oral presentation was (M= 10.74) at the beginning of the semester. The students were not aware of the flipped classroom. After assessing students' first oral performances (pre-test), they were exposed to the flipped classroom model for one semester. Throughout the semester, each student has to give three more performances. The maximum mean score for the fourth performance was (M= 14.12), verifying that utilizing the FCM significantly influenced the development of students' oral fluency.

Likewise, Table 3 demonstrates the significance level of the participants' performances across four oral presentations.

**Table 3**

*Multivariate Tests of Students' Oral Presentations Across Four Tests*

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
time Pillai's Trace	.812	67.829	3.000	47.000	.000	.812
Wilks' Lambda	.188	67.829	3.000	47.000	.000	.812
Hotelling's Trace	.812	67.829	3.000	47.000	.000	.812
Roy's Largest Root	4.330	67.829	3.000	47.000	.000	

As Table 3 illustrates, there was a statistically significant effect for time, *Wilks' Lambda* = .188,  $F(3, 47) = 67.829, p = .000$ , *multivariate eta squared* = .812 indicated a large effect size.

A pairwise comparison was also computed to find out which levels of the independent variable differ from each other,

**Table 4**

*Pairwise Comparisons*

(I) time	(J) time	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference <sup>b</sup>	
					Lower Bound	Upper Bound
1	2	-.960	.124	.000	-1.302	-.618
	3	-1.940	.179	.000	-2.433	-1.447
	4	-3.380	.234	.000	-4.023	-2.737
2	1	.960	.124	.000	.618	1.302

	3	-0.980	.150	.000	-1.392	-.568
	4	-2.420	.200	.000	-2.970	-1.870
3	1	1.940	.179	.000	1.447	2.433
	2	.980	.150	.000	.568	1.392
	4	-1.440	.137	.000	-1.818	-1.062
4	1	3.380	.234	.000	2.737	4.023
	2	2.420	.200	.000	1.870	2.970
	3	1.440	.137	.000	1.062	1.818

As Table 4 depicts, the pairwise comparison across students' four tests indicated that the students' improvement was significant from the first to the second test ( $p=.000$ ), first to the third test ( $p=.000$ ), first to the fourth test ( $p=.000$ ), second to the third test ( $p=.000$ ), and second to the fourth test ( $p=.000$ ) as well as the third to the fourth test ( $p = .000$ ).

#### *4.2. Results of Semi-Structured Interviews*

In order to answer the second research question, the semi-structured Interview was used in the current study. The researchers tape-recorded the participants' perspectives at the end of the semester, analyzed their responses, and summarized the results.

First, most students (92%) reported their satisfaction regarding the approach utilized in the course since they believed that this approach facilitated their learning process and improved their proficiency levels, especially their oral fluency. Almost all of them believed that this approach was an innovative, exciting, and motivating methodology that provided sufficient opportunities to practice using language. Furthermore, it encouraged the students to be more active and comfortably share their knowledge with their peers. In this manner, they could not only increase their proficiency in using English to perform academic tasks but also be successful in transferring what they had learned in class to novel academic contexts. Other students (8%) mentioned that they had to do many tasks during the semester and preferred traditional approaches because of their time limitations.

The second question sought to elicit information regarding the salient features of the current course in comparison to other courses. All students unanimously believed that this course's distinctive features were the cooperation and collaboration between the students and the teacher. In their opinion, this course was not teacher-centered, and the teacher was a facilitator (not a dictator in the class). Also, they could negotiate with the teacher and ask questions whenever they wanted. A good majority of the students (80%) reported that the current course could solve their significant problems related to different aspects of language and provide them with authentic academic language experience to



empower their communication skills. Moreover, 75% of the students believed they spent more time and effort during this course.

The students also enumerated some advantages and disadvantages of using this methodology in a conversation course. From their perspectives, this method's most outstanding advantages were decreasing anxiety, increasing motivation and self-confidence, providing an equal chance of speaking for all students, and raising language awareness through valuable feedback. In contrast, time limitation was the only disadvantage the students mentioned for a one-semester flipped classroom.

Regarding the fourth question, which sought the extent of participants' satisfaction regarding the course materials, 84% of the students admitted that the digital materials made by the instructor helped improve their oral fluency. Also, they mentioned that the materials helped them understand the crucial points of the units and immerse themselves in the learning atmosphere of the class.

Finally, the last question aimed to elicit information concerning the use of Telegram as a learning platform. Almost all students (96%) reported satisfaction with using social media to learn a foreign language. In their opinion, learning how to use Telegram for their class activities was easy, and using Telegram did not require much time.

The results of this study also indicated that the number and duration of the students' pauses were decreased, and their speech rate, phonation ratio, and length of runs were increased. The table below shows the mean of these measures or indicators in the learners' four oral presentations.

**Table 5**

*Means of the Indicators of the Learners' Oral Fluency*

	Test 1	Test 2	Test 3	Test 4
Speech Rate	120.21	123.33	134.22	140.2
Phonation/Time Ratio	14.32	15.41	15.47	18.99
Number of Silent Pauses Per Minute	20	19	17	12
Duration of Silent Pauses Per Minute	4*	4	3	2
Length of Runs	5.1	6.4	6.8	7.2

\*Second

## 5. Discussion and Conclusion

The present study aimed to shed light on how the flipped classroom model can be used to develop foreign language learners' speaking proficiency. More specifically, the focus was on the development of oral fluency by Iranian EFL learners. Moreover, this study tried to investigate the students' attitudes and beliefs regarding the influence of utilizing the FCM on developing their oral

fluency. To this end, an "explanatory sequential mixed method design" was used (Creswell & Clark, 2018, p.101), through which data were collected quantitatively and qualitatively by utilizing a one-group pre-posttest design and semi-structured interviews.

Based on the quantitative and qualitative findings of the study, the positive impact of utilizing the FCM on developing students' oral fluency was confirmed. Many conclusions can be drawn regarding the study's goals and the data analysis results. The main focus of this kind of teaching methodology was to enable the students to receive appropriate materials at home, prepare themselves well for class sessions, tackle their problems, figure out the best way to practice English outside the classroom, and increase their oral fluency.

The findings of the semi-structured interviews were broadly consistent with other studies, which have shown that utilizing the FCM helps students to immerse themselves in the course programs quickly (Mason et al., 2013). FCM provides more opportunities for learners to increase their proficiency and present their ideas comfortably (Brunsell & Horejsi, 2013). It shifts the teaching process from time-consuming teacher-based instruction to a practical learner-centered approach (Davis, 2013; Herreid & Schiller, 2013) and motivates the learners for learning processes (Davies et al., 2013). Hence, the data obtained through the Interview confirmed Tsang and Harris' argument (2016) about less-motivated students. 8% of the participants reported their dissatisfaction with the course's approach because of many tasks they should have accomplished and time limitations. Furthermore, the results indicated that the cooperation and collaboration between students and teachers were undeniable, and through this approach, the students' anxiety decreased, and their self-confidence increased.

Furthermore, by knowledge gained through this study, teachers, instructors, policymakers, and stakeholders at any level can implement the FCM in their courses to benefit from an efficient method to engage the students in the learning process more and increase their personal or academic achievements.

In light of the findings mentioned above, a few limitations in this study are worth mentioning due to administrative and logistical difficulties. First, it was not feasible to divide the participants of this study into two groups, namely the control and experimental group, for one semester. Second, the findings of this study are limited to fifty English Language and Literature students who had enrolled in a course entitled "Listening & Speaking" at an Iranian state university. Next, unlike ESL contexts, foreign language educational contexts do not provide many opportunities for interaction with native speakers, so only two native speakers assisted the researchers while conducting the current study.

Some issues are interesting enough to pursue by prospective researchers for further studies, which are listed as follows: as mentioned before, there was a limitation on the number of foreign language learners and native speakers in this



study. So, it can be replicated with more participants at different levels. Based on the results of such studies, the researcher would investigate more aspects of utilizing the FCM on the students' performances at different levels. The goals of the current study were limited to one academic semester. Thus, a longitudinal study is recommended to investigate the impact of the flipped classroom model on the development of EFL learners' oral fluency over a more extended time.

### **Acknowledgments**

We would like to express our sincere gratitude and deep appreciation to all persons who helped us during this study, especially Mr. Dean and Ms. Brown, native speakers of this study.

### **References**

- Bauer-Ramazani, C., Graney, J. M., Marshall, H. W., & Sabieh, C. (2016). Flipped learning in TESOL: Definitions, approaches, and implementation. *Tesol Journal*, 7(2), 429-437. <https://doi.org/10.1002/tesj.250>
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International society for technology in education.
- Blair, E., Maharaj, C., & Primus, S. (2016). Performance and perception in the flipped classroom. *Education and Information Technologies*, 21(6), 1465-1482. <https://doi.org/10.1007/s10639-015-9393-5>
- Brunsell, E., & Horejsi, M. (2013). A flipped classroom in action. *The Science Teacher*, 80(2), 8.
- Burkart, G., & Sheppard, K. (2004). *Content-ESL across the USA: A training packet. A descriptive study of content-ESL Practices*. National Clearinghouse for English Language Acquisition.
- Celik, O., & Yavuz, F. (2015). The relationship between speaking grades and listening grades of university level preparatory students. *Procedia-Social and Behavioral Sciences*, 197, 2137-2140. <https://doi.org/10.1016/j.sbspro.2015.07.339>
- Cheung, Y. K. (2010). The Importance of Teaching Listening in the EFL Classroom. *Online Submission*.
- Creswell, J. W., & Clark, V. L. P. (2018). *Designing and conducting mixed methods research*. (3<sup>rd</sup> edition). Sage publications.



- Cucchiarini, C., Strik, H., & Boves, L. (2002). Quantitative assessment of second language learners' fluency: Comparisons between read and spontaneous speech. *The Journal of the Acoustical Society of America*, *111*(6), 2862-2873.
- Davies, R. S., Dean, D. L., & Ball, N. (2013). Flipping the classroom and instructional technology integration in a college-level information systems spreadsheet course. *Educational Technology Research and Development*, *61*(4), 563-580.
- Davis, C. (2013). Flipped or flipped learning: Strategies for course design. *Enhancing instruction with visual media: Utilizing video and lecture capture*. 241-265.
- De Jong, N. H., Steinel, M. P., Florijn, A., Schoonen, R., & Hulstijn, J. H. (2012). The effect of task complexity on functional adequacy, fluency and lexical diversity in speaking performances of native and non-native speakers. *Dimensions of L2 performance and proficiency: Complexity, accuracy and fluency in SLA*, 121-142.
- De Jong, N. H., & Wempe, T. (2009). Praat script to detect syllable nuclei and measure speech rate automatically. *Behavior research methods*, *41*(2), 385-390.
- Derwing, T. M., Rossiter, M. J., Munro, M. J., & Thomson, R. I. (2004). Second language fluency: Judgments on different tasks. *Language learning*, *54*(4), 655-679.
- Dunkel, P., & Pialorsi, F. (2005). *Advanced listening comprehension: developing aural and notetaking skills*. Thomson Heinle.
- Enfield, J. (2013). Looking at the impact of the flipped classroom model of instruction on undergraduate multimedia students at CSUN. *TechTrends*, *57*(6), 14-27.
- Fillmore, C. J. (1979). On fluency. *Individual differences in language ability and language behavior*. 85-101.
- Herreid, C. F., & Schiller, N. A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching*, *42*(5), 62-66.
- Jalilifar, A., & Mashhadi, A. (2013). Current Trends in Research on Mobile Phones in Language Learning. *Research in Applied Linguistics*, *4*(2), 110-127.



- Jeong, J. S., & González-Gómez, D. (2016). Students' perceptions and emotions toward learning in a flipped general science classroom. *Journal of Science Education and Technology*, 25(5), 747-758.
- Kormos, J., & Dénes, M. (2004). Exploring measures and perceptions of fluency in the speech of second language learners. *System*, 32(2), 145-164.
- Lennon, P. (1990). Investigating fluency in EFL: A quantitative approach. *Language learning*, 40(3), 387-417.
- Lin, C. J., & Hwang, G. J. (2018). A learning analytics approach to investigating factors affecting EFL students' oral performance in a flipped classroom. *Journal of Educational Technology & Society*, 21(2), 205-219.
- Marchionda, H., Bateiha, S., & Autin, M. (2014). The effect of instruction on developing autonomous learners in a college statistics class. *Using Research to Improve Instruction*, 45-54.
- 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*, 56(4), 430-435.
- McLaughlin, J. E., Griffin, L. M., Esserman, D. A., Davidson, C. A., Glatt, D. M., Roth, M. T., ... & Mumper, R. J. (2013). Pharmacy student engagement, performance, and perception in a flipped satellite classroom. *American Journal of Pharmaceutical Education*, 77(9), 196.
- McLaughlin, J. E., White, P. J., Khanova, J., & Yuriev, E. (2016). Flipped classroom implementation: a case report of two higher education institutions in the United States and Australia. *Computers in the Schools*, 33(1), 24-37.
- Milman, N.B. (2012). "The flipped classroom strategy: What is it and how can it best be used?", *Distance Learning*, 9(3), 85-87.
- Missildine, K., Fountain, R., Summers, L. & Gosselin, K. (2013). Flipping the classroom to improve student performance and satisfaction. *Journal of Nursing Education*, 52(1), 597-599. doi:10.3928/01484834-20130919-03
- Nunan, D. (1999). *Second language teaching and learning*. Heinle Publishers.
- Préfontaine, Y., & Kormos, J. (2015). The relationship between task difficulty and second language fluency in French: A mixed methods approach. *The Modern Language Journal*, 99(1), 96-112.

- 
- Rivers, W. M. (1981). *Teaching foreign language skills* (2nd ed.). University of Chicago Press.
- Sletten, S.R. (2015). Investigating Self-Regulated Learning Strategies in the Flipped Classroom. In D. Rutledge & D. Slykhuis (Eds.), *Proceedings of SITE 2015--Society for Information Technology & Teacher Education International Conference* (pp. 497-501). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). Retrieved September 22, 2019, from <https://www.learntechlib.org/primary/p/150041/>.
- Springen, K. (2013). Flipping the classroom: A revolutionary approach to learning presents some pros and cons. *School Library Journal*, 59(4), 23.
- Thai, C., & Boers, F. (2016). Repeating a monologue under increasing time pressure: Effects on fluency, complexity, and accuracy. *Tesol Quarterly*, 50(2), 369-393. <https://doi.org/10.1002/tesq.232>
- Torky, S. A. E. (2006). The Effectiveness of a Task-Based Instruction Program in Developing the English Language Speaking Skills of Secondary Stage Students. *Online Submission*. <https://files.eric.ed.gov/fulltext/ED523922.pdf>
- Tsang, A., & Harris, D. M. (2016). Faculty and second-year medical student perceptions of active learning in an integrated curriculum. *Advances in physiology education*, 40(4), 446-453. <https://doi.org/10.1152/advan.00079.2016>
- Wong, K., & Chu, D. W. (2014, August). Is the flipped classroom model effective in the perspectives of students' perceptions and benefits? In *International Conference on Hybrid Learning and Continuing Education* (pp. 93-104). Springer, Cham. [https://doi.org/10.1007/978-3-319-08961-4\\_10](https://doi.org/10.1007/978-3-319-08961-4_10)
- Wu, W. C. V., Hsieh, J. S. C., & Yang, J. C. (2017). Creating an online learning community in a flipped classroom to enhance EFL learners' oral proficiency. *Journal of Educational Technology & Society*, 20(2), 142-157. <https://www.jstor.org/stable/90002170>
- Zhang, S. (2009). The Role of Input, Interaction and Output in the Development of Oral Fluency. *English Language Teaching*, 2(4), 91-100. <https://files.eric.ed.gov/fulltext/EJ1083691.pdf>



## **Appendix 1**

### **Interview Questions:**

1. Are you satisfied with the methodology used in the class (the flipped classroom) to develop your oral fluency?
2. What are the salient features of this course in comparison to your other courses?
3. What are the advantages and disadvantages of using this kind of methodology in conversation course?
4. Are you satisfied with the materials used in this course?
5. Did you like using Telegram as a learning platform? Why?

*This Page is Intentionally Left Blank.*