The Effect of Flipping Classroom Instruction on Iranian EFL Learners' Achievement and Motivation

Kamran Janfeshan ⬤

Assistant Professor, Department of English Language Teaching, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran: Email: dr.kjanfeshan@gmail.com

Abstract

The Flipping Classroom is an instructional strategy that can provide educators with a way of minimizing the amount of direct instruction in their teaching practice while maximizing one-to-one interaction. The study's primary purpose was to investigate whether flipping classrooms for Iranian pre-intermediate Teaching English as a Foreign Language TEFL learners is an effective tool for fostering their achievement in language skills. Moreover, the study attempted to compare language learners` motivation using a flipped classroom and the traditional approach to teaching English. The number of participants in this experimental study was fifty female pre-intermediate EFL learners assigned to an experimental and a control group. Each group included twenty-five learners. The experimental group received a flipped approach as a treatment, while the control group, as a traditional group, received no treatment. A pre-test and post-test design was used. The test scores were computed on SPSS. The motivation of flipped classroom students increased, too. Then, it can be claimed that the achievement of the learners` performance is attributable to the flipped teaching method. There is a need for further studies with a population of male learners to investigate the flipped classroom with learners of different grade levels in different aspects of language skills.

*Corresponding author: Assistant Professor of Al-Mustaqbal University, Iraq.

Email: dr.kjanfeshan@gmail.com

Introduction

A flipped classroom as a teaching strategy and a kind of blended learning intends to promote the learners' involvement and learning by having students study at home and work on live problem-solving in the class. It is believed that the term "flipped classroom" is attributed to Bergmann and Sams (2012); however, Talbert (2017) stated that Baker thoroughly explained this teaching method in 1997 and coined the word "classroom fip" (Baker, 2000). Later, Lage et al. (2000) used "the inverted classroom" for this pedagogical flipped education. The rationale behind this teaching method was that language teachers, especially in foreign language contexts, have limited time for interaction with students. In these classes, students attend the class; the teacher explains the content to them. The students then practice what they were taught at home. This way of instruction did not always lead to fruitful language achievement. One of the biggest challenges and shortcomings of most foreign language classrooms is the lack of time to negotiate the language conversationally.

Recently, computer-based instruction aids such as drills and practices, tutorials, simulations, educational games, intelligent tutoring systems, and virtual reality have increasingly become available. Therefore, many teachers and faculty members are flipping or inverting their classrooms by using these aids to introduce students to content outside of class and actively engage concepts inside the class.

In most instances where the flipped classroom model is a student-centered approach, positive and significant achievements were gained, and students' engagement with their peers, teachers, and course materials increased (Bredow et al., 2021). The idea that information in the course content can be delivered is founded on behaviorist theories of learning, where knowledge is viewed as an objective entity that can be transferred from one person to another (as learned skills or strategies of thinking). However, active learning techniques have been used over the past few decades by educators who espouse constructivist theories of learning, which view knowledge as something that the learner must build up through reflective abstraction. Thus, according to Mercer and Dörnyei (2020), a flipped classroom environment could be where the outside class activity is driven by one learning theory, and inside class pursuits are driven by a different (competing/conflicting) theory.

The flipped classroom model has been investigated from different perspectives in second and foreign language teaching; however, the review of the related literature indicated that few attempts specifically compare Iranian EFL learners' achievement and motivation. Therefore, the study's primary purpose is to investigate how the structure of the classroom flip affects the learning environment for students and their achievement. Moreover, the study explores students' motivation in using flipped classrooms compared

with students' motivation receiving the traditional approach. All these concerns led the paper to explore the following research questions:

- Is there any significant difference in Iranian EFL learners' language achievement using the flipped and traditional classroom approaches for enhancing students' language achievement?
- Does using flipped classes impact students' motivation to learn English in Iranian EFL Classes?

Literature review

Flipped Classroom Instruction

Flipped Classroom Instruction (FCI) means a shift of the normal class lesson presentation and the reversal of class instruction and assessments. Lage et al. (2000) stated that inverting the classroom means that events that have traditionally taken place inside the classroom now occur outside the classroom and vice versa. Nolan et al. (2021) stated that the FC is an active, student-centered approach to enhancing class time quality. Similarly, Strelan et al. (2020) believe that FC offers more systematical and active learning structures and motivates learners to interact more with their teachers, classmates, school employees, and learning materials.

According to Bishop and Verleger (2013), the flipped classroom is the restructuring of the classroom environment and activities at home. Therefore, by flipping the classroom, the lecturer can reduce the time spent in class on lecturing, opening up class time for the use of active learning strategies such as problem-solving and discussion between students in the presence of the lecturer. Similarly, Bergmann and Sams (2012) state that by implementing a flipped classroom, the lecturer no longer must lecture for two hours while students take notes. They can fully utilize in-class time for discussion and problem-solving with students. It is seen to address the needs of both advanced and less talented students. The FCI allows advanced students to learn independently. In contrast, less knowledgeable students do not give up on homework or class work but attempt to do the homework in the classroom and follow the class explanation. Normally, students in a traditional class receive instruction in a class and work on homework, projects, or other activities outside of the class on their own without help from the instructor.

It is believed that in the flipped classroom model, students participate eagerly in learning activities both inside and outside of the classroom with the implication of new educational technology devices (Aguilera-Ruiz et al., 2017; Aprianto et al., Aprianto, Ritonga et al., 2020). These students enjoy planning the presentation outside the class, watching the same videos or clips many times, and rewinding to watch it several times. They are free from sitting in a classroom and listening to teachers' lectures Ahmed (2016). The FCI is proposed to allow differentiated instruction to help students overcome

language-learning obstacles. The FCI provides learners with learning opportunities by doing since their learning is more personalized.

In a nutshell, flipped pedagogy presents the students with content and materials such as video lectures, CDs, podcasts, and short clips before the class instruction time. Thus, most class time is devoted to more interactions, cooperative tasks, and conversations. A literature review by Pearson (2013) emphasizes that students are motivated to cooperate actively through flipping instruction. Furthermore, student-centered learning and person-to-person instruction are created. The principles of the FCI can be summarized as having a situation where students get out of the large group learning space and move into the individual learning space with the help of one of several technologies (Pearson, 2013).

Flipped instruction enhances different language skills. For example, Singh et al. (2018) revealed that flipped instruction developed students' speaking skills. Moreover, Fathi and Barkhoda (2021) argued that flipping the classroom improves Iranian EFL learners' reading comprehension by fostering their engagement in collaborative tasks and interactions. Similarly, Ebadi and Salari (2023) scrutinized the current research on the trends and effectiveness of the online flipped classroom approach in enhancing speaking abilities in ELT. Based on their comprehensive review, they concluded that online flipped classroom has a significant effect on enhancing speaking proficiency.

Students' Attitude Towards Flipped Instruction

Research findings indicate that students positively associate with flipped instruction (Chen & Tian, 2022; Chen Hsieh et al., 2017). For example, Ruddick (2012) flipped a college prep chemistry class and found that students perceived the flipped instruction as a better or more efficient teaching method. Additionally, Chester et al. (2011) found that a flipped classroom improves student behavior. In a flipped classroom research done with an undergraduate world history course, 72% of respondents replied that the videos helped to prepare them either most of the time or all of the time. 22% responded that the videos helped little to prepare for the following class (Gaughan, 2014).

Shahani et al. (2021) showed that Iranian EFL learners' attitudes toward flipped instruction teaching were positive because most of them confirmed the influential effect of flipped teaching in facilitating their motivation in language learning, promoting classroom engagement, and enhancing the positive attitudes toward autonomous and reflective learning as a result of flipped teaching. Similarly, Samiei and Ebadi (2021) showed the positive impact of the WebQuest-based flipped classroom on the development of Iranian EFL learners' inferential reading comprehension skills. Moreover, their study's result indicated the EFL learners' positive attitudes toward the effectiveness of this new approach in enhancing their inferential reading comprehension skills.

Enhanced Student Comprehension

Concerning moving forward with understudy substance information, the discoveries in one later inquiry about consider have permitted analysts to show a few enhancements in understudy learning and add up to comprehension. Ruddick (2012) instructed a college prep chemistry course, and the inquiry about discoveries from this think about demonstrated changes in understudies within the flipped class' scores compared to understudy scores in a conventional classroom. It appeared that not only was the average student score higher within the flipped lesson, but the rate of understudies performing at or above a C-level on the exam was more prominent within the flipped lesson. In a ponder at Virginia State College, a basic course on brain research comprising African American students found that understudies in a flipped classroom environment scored 8.6% superior within the course on normal over the customarily instructed course (Talley, 2013). Whereas testing the productivity of flipped learning on undergrad understudies in an interactive media lesson, Enfield (2013) found that after partaking in flipped learning, 73.5% of the understudies felt more sure in their capacity to memorize modern fabric on their claim as restricted to a formal lesson instruction model, whereas as it were 2.9% felt less sure. 61.8% responded that they are more likely to utilize direction recordings to memorize a new topic than they were recently presented in the flipped classroom.

In contrast, none reacted that they were less likely to utilize direction recordings in the future. Indeed, although recordings sometimes had specialized issues (gushing and downloading issues), as it was 32.4% detailed, the specialized issues adversely affected their learning. 45.9% reacted that specialized issues were irritating but did not influence learning, and 21.6% did not discover specialized issues to be irritating. For illustration, when comparing understudies in an upper-level undergrad building course, the conventional classroom detailed investing 45% more time examining normal than understudies within the flipped classroom (8 hrs/week vs. 5.5 hrs/week on normal) (Artisan, 2013).

Traditional Classroom versus Flipped Classroom

Since new technologies such as the internet and computers and different applications and software exist, the education system has grown rapidly. Although the use of technology is a requirement for students to complete assignments using laptops or computers (Rassiah et al., 2011) and lecturers use PowerPoint slides in class (Jamaludin & Osman, 2014), it may not yet expose students to the use of educational technology in their teaching and learning (McMahon & Proposil, 2005). With the existence of student educational technology knowledge practiced in the traditional setting, information communication technology (ICT) literacy could be enhanced with the use of learning instructions that engage students in interactivity, collaboration, ownership, authority, and malleability of texts (Janfeshan et al., 2023). However, according to Mason et al. (2013),

there is no difference in perception between flipped and traditional classrooms. A study by Ramlogan et al. (2014) found that live lectures are more effective than video instruction alone. However, studies by Rassiah et al. (2011) found that lack of facilities, poor network, and instructional development skills meant that the traditional environment still needed to be practiced. However, students need changes in the learning environment.

Studies conducted by Mason et al. (2013) and Johnson and Renner (2012) also found no significant difference in student achievement in either learning environment. According to Ramlogan et al. (2014) and Johnson and Renner (2012), the lecturers argue that traditional methods must be adopted because not all topics can be practiced in the flipped classroom environment. However, a flipped classroom or inverted classroom is a learning environment that is currently practiced by educators for different fields of study and different levels all around the world.

Research has been done by Long et al. (2014), Mason et al. (2013), Johnson and Renner (2012), and Ebadi et al. (2022) on flipped classrooms to look at perception, engagement, motivation, active learning, and achievement. For example, results from McManus et al. (2012) find that those instructed through the web-based module have higher ethical judgments than those instructed through the traditional in-class textbook. Along the same line of thought, Li and Li (2022) explored the impacts of flipped classrooms on the behavioral, emotional, cognitive, and social engagement of Chinese EFL learners. The results revealed that after flipped instruction in the listening and speaking class, Chinese learners in the flipped class showed more behavioral, cognitive, and social engagement than those in the non-flipped class.

Similarly, Ebadi et al. (2022) tried to explore the effect of flipped vocabulary learning on the listening achievement of Iranian EFL learners. Their study showed that flipped vocabulary learning can be an effective instructional tool to help learners improve their listening achievement. Furthermore, Khazaie and Ebadi (2023) investigated the feasibility of the augmented reality game-supported flipped classrooms for English for medical purposes reading among 464 Isfahan University of Medical Sciences students. The finding showed that learning English for medical purposes in the self-made-augmented reality game-supported flipped classrooms led to better academic reading.

Methodology

This research followed a quasi-experimental approach in which the participants were assigned to one control and another experimental group with homogenous background knowledge and abilities. A pre-test was designed to evaluate the participants' performance before the start of the educational program, and a post-test was designed to measure the difference between the results of the two groups after the program.

Participants

Fifty female students from Kermanshah, Iran, with the same pre-intermediate level of EFL learners, were selected based on available sampling methods. Two homogenous groups of students enrolled in a language institute were selected. They were similar in age, gender, and language proficiency. The total number of fifty students was in the age range of 13 to 15 years old. They were divided into a control and an experimental group. Persian was the native language of all the participants in the study. To make sure that the participants were homogeneous in terms of foreign language proficiency, a short description of their previous participation in English classes was asked of their parents. The same questions regarding their previous English studying were asked by each individual separately before administering the pre-test. The curriculum, course objectives, and the English language teacher were the same for both learners.

Instrument

The measured skill was English achievement, and the comparability of the students in both groups was ensured by using a test as a pre-test for measuring the level of language proficiency and a motivation questionnaire to compare participants ' motivation at the beginning of the term in Persian forms and the end of the term in English forms. A pre-test was developed for intermediated-level language learners. The reliability and validity of the test was measured through Cronbach's alpha. The reported reliability was 0.87. The post-test was based on the Intro Interchange workbook. The two groups' learners were taught the same syllabus and materials. Five English teachers approved the face and content validity of the post-test, and the reliability was estimated using Cronbach's formula. The reported reliability for the post-test was 0.91.

One group received the treatment of English teaching based on the flipped method/ experimental group, and the other group received no treatment (traditional method /control group). The traditional group was taught using primarily guided inquiry and some direct instructions, and the class was teacher-centered. Since the flipped model or flipped classroom inverted the role of teachers' strategy and the instructor deliberately shifted instruction to a student-centered approach, students were actively involved in knowledge construction via detailed PowerPoint instruction and necessary explanations about the contents. Then, the lessons from the book were recorded on DVDs and VCDs and distributed to the students in the experimental group at the beginning of the course. The last instrument was a motivation questionnaire developed by Lixian et al. (2014). It was translated and given to all students twice at the beginning and end of the instruction.

Procedure

The quantitative data collection procedure consisted of administering two English language tests for the study's pre- and post-tests to measure their English achievement.

Moreover, a motivation questionnaire was given to both groups at the beginning and the end of the study. As mentioned above, two groups of students were selected and randomly assigned into two groups to determine the effect of a flipped classroom. Group selection was arbitrary. The same teaching method and activities were delivered to both groups throughout the 9 weeks of study. The participants of two groups studied the first six lessons of the Intro book from the Interchange Package (third edition). This book is used internationally as a course book for teaching English in Iranian private language institutes. Their class hours were on different days. Each class lasted 18 sessions in 9 weeks (two sessions a week). Each session lasted 90 minutes. 5 minutes was devoted to warm-up activity in the traditional classroom, and the same time was devoted to warm-up in a flipped classroom. 20 minutes was devoted to going over the previous night`s homework in a traditional classroom; then, 30-40 minutes was devoted to lecture new content in the traditional classroom. Students spent the remainder of the class time, 20-35, with independent practice in a traditional classroom. However, 10 minutes were devoted to the review of the content that had been delivered via CDs in the flipped classroom.

Seventy-five minutes were devoted to guided and independent practice and or checking DVD audio scripts in a flipped classroom. DVDs included two parts; the first part related to the first six lessons, and each unit contained ten exercises (such as conversation, snapshot, grammar focus, word power, listening, etc.). After each exercise, students played an audio program, and the second part related to a video that contained five sequences. The video provided a variety of entertaining and instructive live-action sequences. Each video sequence provided further practice related to the topics, language, and vocabulary. The video was an exciting vehicle for introducing and practicing useful conversational language used in everyday situations. The sequences were approximately three to four minutes each. The DVDs covered the four skills: listening, speaking, reading, writing, pronunciation, and vocabulary. Learners in the flipped class were required to watch the DVDs at home before coming to class the next day.

The class time (for 90 minutes) was devoted to doing warm-up activities, homework (workbook), and checking audio and video scripts. Learners of flipped classrooms were asked to prepare transcripts of audio programs and video at home. The instructor in the flipped classroom had autonomy in how she spent class time. Students were asked to complete the assignments during class time. If the instructor had extra time, the remaining classroom was devoted to participating in free discussions. Each unit was taught between 3-4 sessions. In the traditional classroom, the class was taught primarily by guided inquiry with some direct instructions from the same instructor, time, sessions, and teaching materials. The class was teacher-centered. Students were taught students' books in class, and workbooks and homework were done at home. The instructor was like a sage on the stage, and it was contrariwise in the flipped classroom. The class was student-centered, and the instructor was a guide. The instructor taught the teaching

materials based on the syllabus of the Intro Interchange book. Class discussions were typically centered on the teacher, and the students' engagement in the traditional model was limited to activities in which the students worked independently or in small groups. The instructor played VCD to list the exercises and asked the learners to repeat sentence after sentence after each pause in class time. They were done homework and workbook at home.

Results

The first test given to the participants was a pre-test, which included grammar and vocabulary, which were the same for both experimental and control groups. The results obtained from the pre-test showed that the participants did not perform very differently regarding their knowledge of English proficiency. The results obtained from the pre-test of the two groups are shown in Table 1.

Table 1.

Mean Scores of the Two Groups' Pre-Tests in Pre-test

Group	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
Pre-test Experimental group	25	2.6200	.89303			
				.604	48	.549
Pre-test control	25	2.4400	1.19304 group			

As shown in Table 1, both participants` performances of the learners were fairly the same in the pre-test, and participants in the two groups did not show considerable differences. The independent sample t-test was run on the pre-test results to ensure no significant difference between the two groups.

Based on the data analysis, it was observed that the mean of the participant's scores in the pre-test in the experimental group was 2.62, and the mean of the participant's scores in the same test in the control group was 2.44. (t (25) = .604; P value = .549; P> 0.05).

Addressing the First Research Question

The researcher started to formulate a prediction using a null hypothesis. The hypothesis implied that the flip method has no significant difference in Iranian EFL learners' achievement. An independent sample t-test was conducted to compare the post-test scores of the two groups to test the hypothesis and acquire the study results. The acquired results from the independent sample t-test are illustrated below. Based on the data analysis in the post-test, it was clear that there was a significant difference between the two groups. Table 2 clearly shows the results of the T-test.

Table 2.

Mean Scores of the Two Groups' Post-Tests

Group	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
Post-test experimental group	25	12.4700	3.10215			.000
				3.667	48	
Post-test Control group	25	10.1300	2.27889			

According to this table, it was observed that the mean of the participant's scores in the experimental group (flipped classroom) was 12.4700, while the mean of the participant's scores in the control group was 10.1300. According to the meaningful level of significance gained from the data analysis, which was 0.000, and comparing it with the alpha level, which was 0.05, we could be 95 percent certain that there was a meaningful difference between the two post-tests. Therefore, the first null hypothesis was rejected. It acknowledged that the difference was not likely due to the chance. Using the results of the independent sample t-test in Table 2, it can be easily concluded that activities performed in the flipped classroom were beneficial and effective in language achievement. It means that the null hypothesis is rejected. (t (25) = 3.667; P value = 0.000; P < 0.05; 12.4700>10.1300).

Addressing the Second Research Question

The mean scores of the items in the motivation questionnaire at the beginning and the end of the experiment in two groups were compared. The results of the two groups are presented in Tables 3, 4, and 5.

Table 3.

Descriptive data of Motivation questionnaire items at the beginning of the course

Motivation Questionnaire items	Experimental group		Control group	
	M	SD	M	SD
1. I like learning English.	2.40	0.60	2.52	0.54
2. I am learning English because my classmates are better at it.	2.53	2.12	2.76	0.59
3. Learning English makes me knowledgeable.	2.80	0.55	2.44	0.59
4. I like to talk with foreigners in English.	2.00	0.83	2.32	0.71
5. Learning English is one of the most important things in my life.	2.90	0.78	2.76	0.59
6. I do not think English is an important subject in school.	1.96	0.54	2.52	0.71
7. English is not important in the world. (Converted to positive)	2.72	0.55	2.68	0.56
8. I will learn English even if it is not compulsory	2.84	0.55	2.32	0.91
9. It is not easy for me to learn English. (converted to positive)	2.70	0.73	2.60	0.51
10. People around me believe that learning English is a waste of time.	2.51	0.49	2.64	0.67
11. I often imagine speaking good English	2.36	0.76	2.52	0.74
12. I hope to learn many languages.	2.90	0.95	2.68	0.80
13. I will try my best to learn English.	2.40	0.76	2.39	0.64
14. Learning English is fun.	2.60	0.87	2.78	0.62
15. I can travel around the world if I learn English well.	2.20	0.56	2.84	0.71
16. I think that learning English will be helpful in the future.	2.80	0.37	2.32	0.91
17. I always like to have English classes.	2.68	0.48	2.28	0.83
18. I must learn English as it is a required course.	2.72	0.67	2.84	0.71
19. English will be useful if I travel abroad.	2.65	0.55	2.60	0.64
20. For me, a learned person should learn English	2.36	0.66	2.78	0.62
21. Learning English is to pass exams.	1.21	0.81	2.84	0.71
22. I am glad to attend English activities if there are any.	2.68	0.55	2.20	0.32
23. I think that learning English is interesting.	2.73	0.36	2.69	0.73
24. Learning English is important as it is one requirement for compulsory education.	2.71	0.78	2.60	0.51
25. People around me will be disappointed if I do not learn English well.	2.53	0.87	2.32	0.71
Total mean	2.64	0.662	2.57	0.638

Table 3 results indicate that the top five most endorsed items are items 20, 13, 16, 27, and 23 (M=2.91, 2.9, 2.9, 2.89, and 2.87 respectively) and their patterns are consistent over all the dataset (SD=0.37, 0.33, 0.35, 0.38 and 0.44 respectively). This means that most participants believed learning English is interesting, helpful, and important for their future studies. Also, English is useful for future traveling. They will try their best to learn English well. Their views show both intrinsic and pragmatic reasons for learning English. However, the least endorsed items are items 5, 22, 11, 4, and 25 (M=2.45, 2.32, 2.18, 2.14, and 1.74), although these participants seem to disagree with each other (SD=0.79, 0.93, 0.94, 0.88, and 0.94). They hold ambivalent attitudes toward English learning. This point seems to be supported by the metaphor data, which will be discussed below. The result of the question (No. 25) on 'learning English is for passing the exam' is particularly interesting as it provoked the most diverse views from these young learners in the whole questionnaire (SD=0.95). This may indicate that Chinese children of these age groups have a more complex way of thinking regarding English (it is not just for exams; it is for

life, but you do need to pass English exams), and this ambiguity or disagreement may provide some insights for professionals, to see how this diverse thinking can be maintained from the age group onwards.

Table 4.

Descriptive Statistics of the motivation Questionnaire at the beginning of the experiment

Pre-test	Groups	N	Mean Score	SD
	Control Group	25	2.64	**0.662**
	Experimental Group	25	2.57	**0.638**

As presented in the above table, the mean scores of both groups are close to each other, and the mean scores show that there was not much difference between the pre-test scores of both groups. The groups' mean scores are as follows: control group 2.64, and experimental group 2.57. The motivation questionnaire had 25 items. A t-test was required to make these descriptive findings more meaningful and determine whether there was a significant difference between the groups in the pre-test. The results are provided in the following table.

Table 5.

T-test results for the students' motivation questionnaire at the beginning of the experiment

	Leven's test for Equality of variance		t-test for Equality of Means			
	F	Sig	t	Df	Sig	
Equal variances assumed	.030	.864	. 620	28	**.430**	
Equal variances not assumed			**.620**	**28**	**.430**	

A t-test was run to understand the differences between the participants' current motivations. As shown in Table 5, there is a significant difference between the mean scores on the independent variable. The obtained value for t is 0.620. Because this value is smaller than the critical value for t with 28 degrees of freedom at 0.05 level of significance, it can be concluded that there is no significant difference between the groups in their motivation toward English at the beginning of the experiment. This result showed that the learners in both groups had similar motivations toward English before the

commencement of the study. In other words, the participants in both control and experimental groups were the same in this respect.

The researcher conducted the same motivation questionnaire at the end of the experiment to determine whether the treatments changed students' motivation toward English learning. If there were significant differences between learners' results in both groups, a t-test was conducted. This test is used to determine the differences between the means of the two groups. The descriptive statistics results are provided in Table 6.

Table 6.

Descriptive Statistics of Motivation questionnaire items at the end of the course

Motivation Questionnaire items	Experimental group		Control group	
	M	SD	M	SD
1. I like learning English.	2.80	0.55	2.80	0.54
2. I learn English because my classmates are better at English.	2.98	0.88	2.48	0.50
3. Learning English makes me knowledgeable.	2.78	0.63	2.96	0.57
4. I like to talk with foreigners in English.	2.92	0.57	2.12	0.89
5. Learning English is one of the most important things in my life.	2.96	0.63	2.88	0.78
6. I do not think English is an important subject in school.	2.65	0.86	2.00	0.60
7. English is not important in the world. (Converted to positive)	3	0.45	2.64	0.67
8. I will learn English even if it is not compulsory	2.96	0.43	2.80	0.56
9. It is not easy for me to learn English. (converted to positive)	2.93	0.56	2.84	0.78
10. People around me believe that learning English is a waste of time.	2.76	0.78	2.76	0.56
11. I often imagine speaking good English	2.72	0.50	2.44	0.55
12. I hope to learn many languages.	2.94	0.71	2.72	0.86
13. I will try my best to learn English.	2.76	0.46	2.16	0.76
14. Learning English is fun.	2.94	0.67	2.64	0.87
15. I can travel around the world if I learn English well.	2.60	0.71	2.04	0.49
16. I think that English learning is helpful for my future.	3	0.91	2.80	0.37
17. I always like to have English classes.	2.82	0.56	2.48	0.48
18. I have to learn English as it is one of the required courses.	2.98	0.75	2.64	0.76
19. English will be useful if I travel abroad.	2.76	0.84	2.76	0.55
20. For me, a learned person should learn English	2.88	0.72	2.44	0.67
21. Learning English is to pass exams.	2.64	0.62	1.88	0.95
22. I am glad to attend English activities if there are any.	2.68	0.76	2.72	0.56
23. I think that learning English is interesting.	2.88	0.54	2.67	0.38
24. Learning English is important as it is one requirement for compulsory education.	2.90	0.97	2.60	0.76
25. People around me will be disappointed if I do not learn English well.	2.64	0.69	2.45	0.81
Total mean	70.88 2.82	0.670	63.72 2.55	0.654

Table 7

Descriptive Statistics for the motivation Questionnaire at the end of the experiment

	Groups	N	Mean Score	SD
Post-test	Control Group	25	2.55	**0.643**
	Experimental Group	25	2.82	**0.672**

As the results in Table 7 show, the treatments have been effective, and the experimental group's mean has changed. As it is clear from the above table, the control group's mean is 2.55, and the experimental group's mean is 2.82. As seen from the comparison between Tables 4 and 7, the experimental group experienced a higher change in the group mean than the control group. To determine whether the groups' motivation differences at the end of the experiment were significant, the researcher ran a t-test again. The results of the t-test are depicted in the following table.

Table 8.

T-test Results for the motivation questionnaire at the end of the experiments

	Leven's test for Equality of variance		t-test for Equality of Means		
	F	Sig	t	Df	Sig
Equal variances assumed	1.55	.247	2.92	28	**0.05**
Equal variances not assumed			**2.92**	**28**	**0.05**

 A t-test was used to make these descriptive findings more meaningful. As observed in Table 8, the obtained value for t is 2.92, which is greater than the critical value for t with 28 degrees of freedom at the significance level (0.05). The differences between the two groups were statistically significant, so it shows that the motivation of the experimental group was affected by the application of flipped classroom treatment. Accordingly, it could be concluded that the application of flipped classes positively affected the students' motivation to learn English.

Discussion

Because of the novelty of flipped classrooms in English language pedagogy, a few studies have investigated the role of flipped classrooms in English learners' achievement and motivation in Iran. Regarding the results obtained from students' performance and achievements in the class, the results revealed that students who participated in flipped classes outperformed those who were learning using the traditional teaching method. Therefore, the finding was consistent with the study conducted by Mervat (2016), who investigated the effect of flipped classrooms on writing English as a foreign language and

student's attitudes towards flipping. The study results showed that the experimental group outperformed the control group in the post-test of EFL writing. Furthermore, the findings were also supported by Yousefzadeh's (2015) study, which investigated the effect of flipped learning on Iranian EFL learning outcomes. The participants in this study were 250 students and five teachers from a secondary school. There were 25 students in each class, and each teacher taught two classes. One of the classes was a flipped class, and the other was an ordinary one. The results showed significant differences in students' learning outcomes between flipped and ordinary classes.

The finding also aligned with Kafi (2014), who studied the relationship between project-based instruction and 21st-century skills in a flipped classroom with 50 Iranian intermediate learners. The research contained project-based instruction along with interpersonal and real-world problem-solving skills. The results revealed that the flipped class group participants could outperform the control group participants.

Similarly, this study's findings align with previous studies on flipped classrooms (Ebadi et al., 2022; Khazaie & Ebadi, 2023; Samiei & Ebadi, 2021). For instance, Doman and Web (2014) conducted a flipped class experiment with intermediate-level EFL classes at a university in Macau, China. Data revealed that students in the experimental not only gained higher scores on the final exam but also students in the flipped class requested additional flipped materials and appeared more comfortable with the flipped class.

Besides, the findings of the present study were in line with the Sung (2015) study, which looked into a flipped English content-based class where 12 participants' college students were enrolled and completed all the course requirements in an elective course. The results showed that the learners viewed flipped learning positively.

Similarly, the findings are also supported by the Wang and Zhang (2013) expressions. They analyzed data gathered from four English for Educational Technology class learners using triangulation based on questionnaires, interviews, and observations. They found significant improvements in their listening, translation, and writing skills. They also found improvement in their speaking, as measured by more active group discussion, English class participation, and the acquisition of more difficult vocabulary words. A Chinese researcher conducts another study. Li (2013) described her flipped classroom. She found that the flip class helped in many ways: by allowing the teacher to individualize instruction, allowing students more opportunities to engage in the four skills, creating students who are more self-disciplined to study, making students more active in class, not wasting students' time on note-taking in class, and reducing teacher pressure to create materials as they can share online. As a result, Li suggested that the flipped classroom be considered a viable teaching technique in China.

The findings of the second research question indicated that Iranian EFL learners had positive motivation toward applying flipped classrooms to improve their English achievement. Moreover, the data from the motivation questionnaire indicated that

the learners strongly agreed that they could utilize all functions of flipped class quickly and easily. In addition, the learners strongly agreed that they liked and enjoyed applying filled materials before coming to the class. Thus, the current study is under Abeysekera and Dawson's study (2015). They stated that the flipped classroom approach to entice greater intrinsic and extrinsic motivation improves student motivation.

Furthermore, Butt (2014) studied flipped classrooms during his final year of study abroad in Australia. She conducted a two-part survey of her students and found that students felt they learned the most by completing activities, more so than lectures, exercises, or group instruction. By comparing student attitudes at the beginning and end of the semester, he found that students who viewed the flipped classroom negatively at the beginning of the course began to change their thoughts about the flipped classroom by the end of the course.

Conclusion

The current study's findings revealed that the flipped approach effectively enabled learners to achieve greater progress in English achievement and motivation. In other words, the flipped approach, focusing on collaborative learning and problem-solving, is one of the effective learning strategies, allowing students to focus on English structures and participate in learning activities. The results of the present study showed that the participants in the flipped classroom gained better scores on achievement tests, and their language ability was more significant than the control group. The study results revealed that most students in the experimental group were enthusiastic about watching the CD before coming to class and eagerly participated in class discussions.

According to the motivation questionnaire results, it is confirmed that the students in the experimental group had greater motivation to learn English as a foreign language after using flipped class than those in the control group. Hence, using flipped classes can improve students' learning of English as a foreign language and enhance their motivation to learn English. The findings imply that students' motivation can be applied and boosted in learning English to map their educational achievement. Therefore, language policymakers, educators, and teachers must utilize the flipped model to improve students' motivation to learn English.

The presentation of the teaching realia and course contents and explanations via CD or video can be applied as an extension of a physical classroom to assist learners in watching films and listening to their teachers often, especially in a foreign context where native speakers are rarely found. The flipped classroom can benefit shy learners who do not participate in class and are reluctant to ask teachers to repeat the explanations. Since the recorder materials are available for them before and after the class instructions. The results of the current study suggest that English language policymakers in Iran can concentrate on certain online instruction for students learning English.

Since this is a new approach to teaching, a few studies in Iran have been done so far. The present study intended to fill this gap. This study focused on student perceptions of the flipped classroom experience and was performed at a pre-intermediate level in an English Language institute in Iran. The research summary concludes that most students enjoyed the flipped classroom and believed it supported their learning. The study had a limited number of participants because only a few classes were participating in the flipped classroom at this institute. A study with a larger sample size across different grades would be beneficial to see if the results found in this study prove similar.

Further research is recommended on the effectiveness of using instruction videos to help students learn. It would be interesting to see if there would be any statistically significant difference in mean test scores between two groups that receive equal instruction in class. Still, one group is aware of the optional help from the video at home.

References

Abeysekera, L., & Dawson, P. (2014). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research. *Higher Education Research & Development. 34.* 1-14. 10.1080/07294360.2014.934336.

Aguilera-Ruiz, C., Manzano-León, A., Martínez-Moreno, I., Lozano-Segura, M. C., & Yanicelli, C. C. (2017). El modelo flipped classroom. International Journal of Developmental and Educational Psychology. https://doi.org/10.17060/ijodaep.2017.n1.v4.1055

Ahmed, M. A. E. A. S. (2016). The effect of a flipping classroom on writing skills in English as a foreign language and students' attitude towards flipping. *US-China Foreign Language*, *14*(2), 98-114.

Aprianto, E., Purwati, O., & Anam, S. (2020). Multimedia-assisted learning in a flipped classroom: a case study of autonomous learning on EFL university students. International Journal of Emerging Technologies in Learning. https://doi.org/10.3991/ijet.v15i24.14017

Baker, J. W. (2000). The 'Classroom Flip': using web course management tools to become the guide by the side. In Selected Papers from the 11th International Conference on College Teaching and Learning, edited by J. A. Chambers, 9–17. Florida Community College at Jacksonville

Baker, J. W. (2000). *The classroom flip: Using web course management tools to become the guide by the side.* Paper presented at the 11th International Conference on College Teaching and Learning, Jacksonville, FL.

Bergmann, J., & Sams, A. (2012). Flip your classroom: reach every student in every class every day. Eugene, OR: International Society for Technology in Education

Bishop, J. L., & Verleger, M. A. (2013). *The flipped classroom: A survey of the research.*

Paper presented at 120th ASEE Annual Conference & Exposition (pp. 23-26). Atlanta: American Society for Engineering Education.

Bowers, P. (2002). *Wireless laptop survival training*. Retrieved June 24, 2003, from http://web.bvu.edu/faculty/bowers/survival/.

Bredow, C. A., Roehling, P. V., Knorp, A. J., & Sweet, A. M. (2021). To flip or not to Flip? A meta-analysis of the efficacy of flipped learning in higher education. Review of Educational Research. https://doi.org/10.3102/00346543211019122

Butt, A. (2014). Student views on the use of a flipped classroom approach: Evidence from Australia. *Business Education & Accreditation, 6*(1), 33-43.

Chen Hsieh, J. S., Wu, W.-C. V., & Marek, M. W. (2017). Using the online flipped classroom to enhance EFL learning. *Computer Assisted Language Learning, 30*(1-2), 1-21. https://doi.org/10.1080/09588221.2015.1111910

Chen, H. C., & Tian, J. X. (2022). Developing and evaluating an online flipped corpus-aided English pronunciation teaching approach for pre-service teachers in Hong Kong. Interactive Learning Environments, 30(10), 1918-1931. https://doi.org/10.1080/10494820.2020.1753217

Chester, A., Buntine, A., Hammond, K., and Atkinson, L. (2011). Podcasting in Education: Student Attitudes, Behaviour and Self-Efficacy. *Journal Of Educational Technology & Society* 14, no. 2: 236-247.

Divjak, B., Rienties, B., Iniesto, F. et al. (2022). Flipped classrooms in higher education during the COVID-19 pandemic: findings and future research recommendations. Int J Educ Technol High Educ 19, 9 https://doi.org/10.1186/s41239-021-00316-4

Doman, M., & Webb, K. (2014). The flipped and non-flipped EFL classroom: 15 initial reactions from Chinese university students. *Thai TESOL Journal, 27*(1), 55.

Ebadi, S., & Salari, M. (2023). Investigating Developments in EFL Speaking through Flipped Learning: A Systematic Review. *Technology Assisted Language Education*, *1*(2), 64-93.

Ebadi, S., Nozari, F. & Salman, A.R. (2022)Investigating the effects of flipped vocabulary learning via an online dictionary on EFL learners' listening comprehension. Smart Learn. Environ. 9, 28. https://doi.org/10.1186/s40561-022-00209-7

Fathi, J., Barkhoda, J. (2021). Exploring the effect of the flipped classroom on EFL learners' reading achievement and self-efficacy. *Foreign Language Research Journal, 11* (3), 435-452.

Gaughan, J. (2014). The Flipped Classroom in World History. *History Teacher* 47, no. 2: 221-244

Jamaludin, R., & Osman, S. Z. M. (2014). The use of a flipped classroom enhances engagement and promotes active learning. *Journal of Education and Practice, 5*(2), 124 131.

Janfeshan, K., Sharhan, A.N., & Janfeshan, M. M. (2023). Effects of Using WhatsApp:

Iranian Intermediate EFL Learners' Vocabulary Learning and Autonomy. *International Review of Research in Open and Distributed Learning* 24, 3. pp- 145-163 https://doi.org/10.19173/irrodl.v24i3.7185

Johnson, L. W., & Renner, J. D. (2012). *Effect of the flipped classroom model on a secondary computer applications course: Student and teacher perceptions, questions and student achievement*. A Doctoral Dissertation Submitted to the Faculty of the College of Education and Human Development of the University of Louisville. Retrieved November 2, 2013, from http://theflippedclassroom.files.wordpress.com/2012/04/johnson-renner-2012.pdf.

Kafi, Z. (2014). *A flipped classroom: Project-based instruction and 21st-century skills.* English Department, Islamic Azad University, Torbat-e Heydarieh Branch, Iran.

Khazaie, S. & Ebadi, S (2023) Exploring the feasibility of augmented reality game-supported flipped classrooms in reading comprehension of English for Medical Purposes, *Computer Assisted Language Learning*, http://doi.org/10.1080/09588221.2023.2173612

Lage, M. J., Platt, G. J., & Treglia, M. (2000). Inverting the classroom: A gateway to creating an inclusive learning environment. *Journal of Economic Education, 31*(1), 30-43.

Li, L. L. (2013). The application of the flipping classroom model in English language teaching flipped classroom, model in English teaching. *The Youth Writers, 20,* 116-117.

Li, Z. & Li, J. (2022) Learner engagement in the flipped foreign language classroom: Definitions, debates, and directions of future research. Front. Psychol. 13:810701. doi 10.3389/fpsyg.2022.810701

Mason, G., Shuman, T., and Cook, K. (2013). Comparing the Effectiveness of an Inverted Classroom to a Traditional Classroom in an Upper-Division Engineering Course. *IEEE Transactions on Education* 56, no. 4: 78-80.

McMahon, M., & Pospisil, R. (2005). Laptops for a digital lifestyle: millennial students and wireless mobile technologies. In *Balance, fidelity, mobility: maintaining the momentum?* (pp. 421-431). Proceedings of the 22nd ASCILITE conference, Brisbane, 4-7 December 2005.

Mercer, S., and Dörnyei, Z. (2020). Engaging Language Learners In Contemporary Classrooms. Cambridge: Cambridge University Press

Mervat A.E (2016). *The effect of a flipping classroom on writing skills in English as a foreign language and students' attitude towards flipping.* Oklt Alsqoor College of Science and Arts, Qassim University, Qassim, Saudi Arabia

Nolan, E., Brady, M., Rienties, B., & Héliot, Y. (2021). Once more on the rollercoaster: losses and gains from the rapid shift to online delivery during Covid. Academy of Management Proceedings. https://doi.org/10.5465/ambpp.2021.15358abstr act

Pearson & The Flipped Learning Network (2013). *Flipped Learning Professional Development*.

Ramlogan, S., Raman, V., & Sweet, J. (2014). A comparison of two forms of teaching instruction: video vs. live lecture for education in clinical periodontology. *European Journal of Dental Education, 18*(1), 31–38.

Rassiah, K., Chidambaram, P., & Sihombing, H. (2011). The higher education students' experiences with technology. *Asian Transactions on Basic & Applied Science, 1*(3),1-10.

Rosenberg, Tina (2013).In Flipped Classrooms, a method for mastery. New York Times.

Ruddick, K.W. (2012). Improving Chemical education from High School to College Using a more Hands-On Approach *Unpublished Doctoral Dissertation, University of Memphis*.

Samiei, F., & Ebadi, S. (2021). Exploring EFL learners' inferential reading comprehension skills through a flipped classroom. RPTEL 16, 12 https://doi.org/10.1186/s41039-021-00157-9

Shahani, S., Chalak, A. & Tabrizi, H, H. (2021). The Iranian Intermediate EFL Learners` Attitudes Towards Using Flipped Teaching via Google Classroom Research in English Language Pedagogy 9(1): 90-112 DOI: 10.30486/relp.2020.1880561.1159

Singh, C., Singh, H., Singh, T., Ja'afar, H., Abdullah, M., Mostafa, N., & Zamri, M. (2018). Flipped Classroom Approach for Improving Speaking Skills of TVET Trainees. *International Journal of Applied Linguistics and English Literature, 7*(7), 27-39. doi:https://doi.org/10.7575/aiac.ijalel.v.7n.7p.40

Strelan, P., Osborn, A., & Palmer, E. (2020). The fipped classroom: a meta-analysis of effects on student performance across disciplines and education levels. Educational Research Review. https://doi.org/10.1016/j.edurev.2020.100314

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

Talbert, R. (2012). Inverted classroom. *Colleagues* [online]. Vol.9 (1). [Accessed 22 November, 2013].

Talbert, R. (2017). Flipped learning—a guide for higher education faculty (p. 2017). Stylus Publishing, LLC

Talley, C. and Scherer, S. (2013). The Enhanced Flipped Classroom: Increasing Academic Performance with Student-Recorded Lectures and Practice Testing in a Flipped STEM Course. *Journal Of Negro Education* 82, no. 3: 339-347.

Wang, X. D., & Zhang, C. J. Z. (2013). The application research of flipped classroom in university teaching. A case study on professional English of educational technology. *Modern Educational Technology, 8,* 11-16.

Yousefzadeh, M. (2015). *The Effect of flipped learning (revised learning) on Iranian students' learning outcomes.* Department of English, Islamic Azad University of Maragheh, Iran.

Zownorega, S. J. (2013). *Effectiveness of flipping the classroom in an honors level, mechanics-based physics class.* Masters Thesis. Eastern Illinois University