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*Research Paper*

## The Efficacy of Classroom Flipping on Iranian Intermediate EFL Learners' Engagement and their Perception of the Flipped Classroom Model

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### Abstract

Regarding problems with traditional models of instruction, EFL learners need to exercise innovative models of learning. For this purpose, flipped classroom instruction may render an effective learning environment. The purpose of this study was to determine how flipped instruction may increase learners' engagement. Therefore, 100 Iranian EFL intermediate students, selected based on convenience sampling, participated in this study. The students were then randomly assigned to the experimental (n=50) and control group (n=50). Those in the experimental group were instructed by a flipped classroom model for 10 sessions, while the control group participants were instructed on traditional methods. Before and after treatment, all the participants filled out the "Classroom Engagement Inventory" by Wang, Bergin, and Bergin (2014) which served as the pre and post-tests. A repeated measures ANCOVA was conducted to analyze the pre and post-tests of the experimental and control groups. The results indicated that the students' level of engagement in the experimental group increased in comparison to the performance of the students in the control group. Moreover, a semi-structured interview was conducted to find out students' perceptions of this model. Thematic analysis of the interview indicated that the students had positive perceptions of the model; believed

that classroom and home activities remarkably increased their engagement; and preferred the role of the teacher in a flipped classroom than in a traditional one. It can be implicated that educators need to focus on the innovative methods of instruction by utilizing different technological tools.

**Keywords:** EFL Learner, Flipped Classroom, Learner Engagement, Perception, Learner-centeredness

An important feature that distinguishes modern methods from traditional ones is learner engagement. Traditional instruction with a teacher-centered attitude leaves the learner on the fringe of the learning process. Of course, learner engagement is not a new term, but in the modern view, student engagement is attributed to integrating technological tools with the learning environment to engage students extensively. To positively capture and keep student engagement at maximum level, teachers need to adopt ways or tools to engage students truly. The existence of technological tools in the current era opens a new path of teaching and learning in educational contexts. Day by day, people witness extensive varieties of educational models and technology integration. A new inverted model of instruction, which is in contrast with traditional formats of instruction, is identified as the Flipped Classroom Model. Quint (2015) believes that 'flipped class', a terminology concerned in this respect, is usually considered along with a times complex and related pedagogical model. The scholar adds that such a class should be looked into from different points of view in various research dimensions.

The flipped classroom, as a modern approach, intends to meet the needs of the individual learners. The literature shows customary Face-to-Fact (F2F) classes featured teacher-dominated lectures, leaving broader student engagement to the environment outside customary traditional classrooms, demanding him/her accomplish out-of-class assignments and homework. On

the contrary, the flipped classroom mandates the learners to receive out-of-class instruction, while show engagement and contribution within the class itself (Strayer, 2007).

The instruction of the content is prepared and accessed by the teachers online before the classroom so that students come to the class with prior knowledge, where their role is active, rather than passive. Moreover, the class time goes to higher-order thinking activities within the teamwork (Yujing, 2015). Studies have shown that a flipped classroom model increases students' engagement (Ayçiçek & Yanpar Yelken, 2018; Baker, 2000; Evseeva & Solozhenko, 2015; James, Chin, & Williams, 2014; Strayer, 2012). The flipped classroom model, as an integrative model in education and technology, attempts to improve students' engagements by transferring instruction to the outside of the classroom through different technological tools and conversely moving the homework inside the class. As Evseeva and Solozhenko (2015) claimed, the flipped classroom model maximizes students' engagement because learners attend face-to-face classes, while they are already familiar with the topic, the main concepts, and have some preparation for the subject matter.

Accordingly, this study introduced flipped classroom instruction as a new model for classroom teaching in which tutors transform their classes into learner-centered environments. In the flipped classroom model, instead of rendering the materials in the lecture form inside the class, materials are given to the students online before the session. Material provision may include instructional videos and/or PowerPoint presentations, which have been prepared by teachers. Therefore, during class time, students find more time to engage in classroom activities. Also, it gives teachers the chance to pay students full attention and assessment to meet their needs. (Cockrum, 2014 as cited in Homma, 2015). Many studies have shown the effectiveness of flipped

classrooms in touching contributing aspects in learning (Brown, 2012; Enfield, 2013; Han, 2015; Hantla, 2014; Karimi & Hamzavi, 2017; Petrillo, 2015; Sankey & Hunt, 2013; Strayer, 2007; Strayer, 2012). Therefore, this study aimed to tap one important issue that may boost as a result of conducting flipped classrooms. Firstly, it aimed at revealing how the Flipped Classroom model may increase student engagement. Secondly, it aimed to investigate the perceptions of Iranian EFL learners toward the flipped instructional model.

### Literature Review

The flipped model features video screening to the learners. In the video, the learner will be capable of receiving explanations of concepts, well-observing structure, and linguistic skills. The way the materials are presented to the learners is expected to result in the learner imagining participation in a real 'workshop' wherein to be involved in learning. The teacher is all times present in such a class, eagerly throwing support in practice, observes errors common to all learners, and assesses the progress of all (Boyer, 2013). The types of activities going on in such a class are as follows: 'Group projects', presented in the form of student-dominated teaching; the so-called discovery activities; presentations in the classroom; and the instruction directly presented in the form of lectures. The above-mentioned activities are all presented through online videos that are already well observed by students prior to class arrival, being considered as activities outside class (Strayer, 2007). There are yet other scholars (Bishop & Verleger, 2013), who present a different definition of the flipped classroom: It is an educational approach comprised of two completely different parts: In-class interactive group learning activities and computer-mediated private teaching provided to each learner well outside class. Flipped Learning Network (2014) explains that 'Flipped Learning' sets as a pedagogical approach that encourages group

learning losing its standing in favor of individualized and personalized learning. The result is a dynamic and interactive learning environment, wherein the educator or the teacher assumes the responsibility of directing his/her students as they proceed on the way of practicing the instructed concepts and creative engagement in the subject matter.

Tétreault (2013) holds that the flipped classroom approach is enriched by the Socio-Constructivist Theory's (SCT) ideas on education and active learning. The approach also appreciates using educational media in efforts to deliver educational content (p. 6). The socio-constructivist theory was pioneered by Vygotsky (1987). SCT encompasses various theoretical constructs one of which is related to learners' centrality. The flipped classroom model with a learner-centered approach is completely responsible for learning and grasping the material before the class. Also, flipped classroom focuses on the importance of peer interaction and collaborative learning which is basically rooted in ZPD. Another important underlying factor that distinguishes the flipped classroom model from traditional ones is related to teachers' and learners' roles. Transferring the class time to homework and lecture content to the home provides a chance for the class time to be allotted to higher-order thinking activities within the group work (Yujing, 2015). Therefore, the instructor and the learner find alerted roles. Figure 1 depicts some changes as a result of substituting a flipped classroom model with traditional instruction.

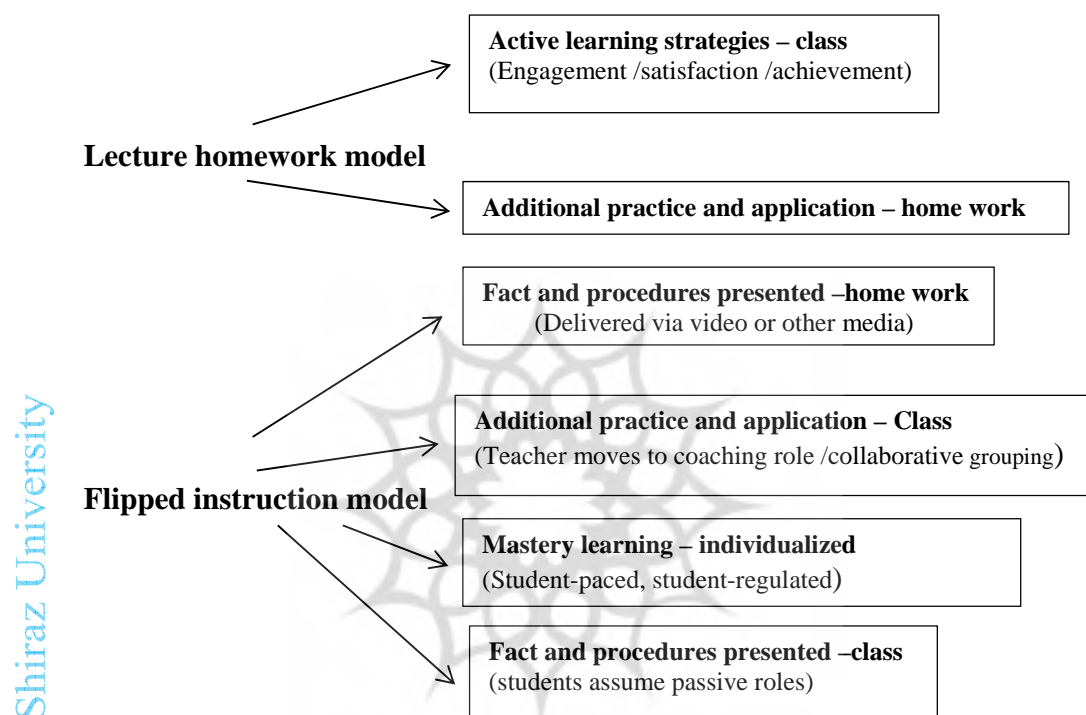
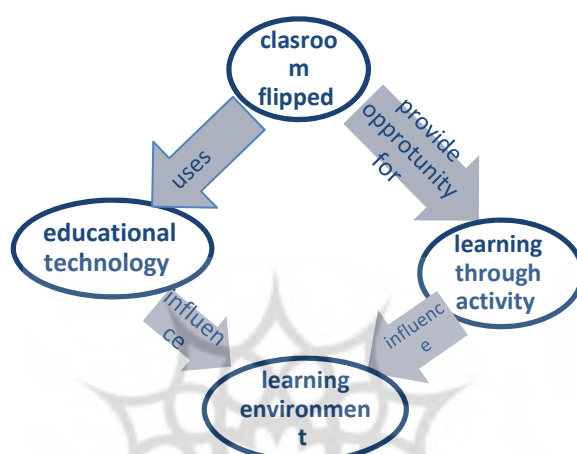


Figure 1.

Model of Flipped Instruction Compared to Traditional Lecture-Homework, derived from (Wiginton, 2103).

Furthermore, Strayer (2007) proposes a genuine conceptual framework to check the quality of within-class learner activities to be ensured of their occurrence in the flipped kind of classroom. According to the following figure, Strayer proposes, “extensive use of educational technology outside class” and “active learning during class time” are two important features that influence student learning environments.



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Figure 2.  
Theoretical frameworks by Strayer (2007)

Flipped Learning Network (FLN) (2014) constitutes the Four Pillars of the flipped class: Flexible Environment, Learning Culture, Intentional Content, and Professional Educators.

- Flexible Environment  
Teachers need to provide a flexible environment wherein students will be able to choose the time and location of learning. Moreover, teachers responsible for flipping their classes are expected to remain flexible in expecting the timeline their students will learn, and in assessing such learning.
- Learning Culture  
Based on the flipped learning model, class time is spent on a deep exploration of topics and the creation of opportunities for rich learning. As a matter of fact, the model of classroom intentionally transforms instruction into a learner-centered kind of teaching.



➤ Intentional Content

Flipped Learning teachers decide the teaching requirements and the sources the students need to use to do their assignments. Teachers use the intended content in an endeavor to save time as much as possible, aiming to adopt active learning strategy techniques, instruction by classmates, and learning based on problem-solving.

➤ Professional Educator

In a successful flipped classroom model, teachers play vital roles. Teachers need to observe their students constantly and give to-the-point and right feedbacks instantly while evaluating the performances of his/her students.

Technology-integrated instruction such as a flipped classroom model creates an effective learning environment. There are many vital areas in language teaching instruction that can be scrutinized how may take advantages following the implementation of the flipped model of the classroom. However, one important area, which this study tries to look into, is "learner' engagement". During the past few years, considerable attention has been directed toward learner' engagement by second language researchers. Many studies have revealed that learner' engagement directly or indirectly influences learning improvement (Granito & Chernobilsky, 2012; Harper & Quaye, 2009; Henrie, Halverson & Graham, 2015; Kinzie, 2010; Prince, 2004). Harper & Quaye, (2009) claimed that engagement not only includes involvement and commitment but also concerns feeling and sense-making. Kuh (2009) believes that student engagement should be defined as the extent of efforts and the time which they allocate for the fulfillment of the sort of activities that are empirically have something to do with favorable college outcomes and institutional policies of student encouragement to contribute to such activities (p. 683).



Harper and Quaye (2009) claimed there is a direct relationship between students' engagements inside and outside the classroom and academic success. Fredricks, Blumenfeld, and Paris (2004) identified three dimensions to student engagement (1) Behavioral engagement: Students who are behaviorally engaged usually follow behavioristic norms like participation and engagement and indicate the absence of distracting behavior. (2) Emotional engagement: When emotionally engaged, students usually show such affective reactions as interest, enjoyment, and the feeling of being belonged. (3) Cognitive engagement: Students seek to go beyond the requirements, invested in their learning, and welcome challenges.

Teachers should constantly think about how they can engage students. There are different ways to engage students in the learning activities that can be adopted by teachers. Willms, Friesen, and Milton (2009) were the first groups of scholars to put forward five effective forms of practice, aiming to bolster student engagement and participation. The five proposed forms of practice are as follows: 1) to create well thought about and deliberate learning designs; 2) to make learning meaningful to the learners; 3) to build up student relationships; 4) to provide better teaching while benefiting from peer teachers' contribution and presence; 5) taking the assessment as an influential tool in progress and improvement of student learning while providing breakthroughs to teaching for own purpose.

Taylor and Parsons (2011) listed six categories to engage students in learning: Interaction, exploration, relevancy, multimedia, instruction, and authentic assessment. **Interaction.** Interaction with peers and teachers is an essential need of today s' learners that has an important role in engaging learners. Indeed, attaching interaction with respect, care, empathy, benediction, mutuality, and a strong interest in knowing students to improve the quality of interaction. **Exploration.** It has been proved by many scholars

that inquiry-based, problem-based, and exploratory classrooms engage learners in the learning process. **Relevancy.** Students need to apply their learning to real-life scenarios which are in contrast with being theoretical and text-based. **Multimedia & Technology.** The technology-mediated instruction will facilitate learning by plugging students into other people and events in the four corners of the world. Additionally, technology will make subject matter and experts available and accessible to learners, while serving as a tool for engaged learning. **Instruction.** Engaging pedagogy and engaging curriculum are two aspects that encourage engagement. Teachers need to move from didactic to constructivist pedagogy. **Assessments.** In order to improve engagement, teachers need to use assessment to improve learning and guide teaching. Assessment for learning focuses on “learning for further development” than “marking to standard expectations”. To be ensured of their students’ progress and success and their involvement in usual conversations with their peers on the quality of their learning, the teachers are required to benefit from formative assessment practices.

Kvavik, Caruso, and Morgan (2004) listed some merits of using technology from the standpoint of the learners as follows: Convenience, class activity management, saving time, promoted learning, further effective type of communications, and helping students to present class assignments in a more qualitative way. Johnson-Smith (2014) listed the benefits of Technology in the classroom as:

1. Students are the driving force in the process of learning.
2. Students are the initiators of any activity while learning from their peers.
3. The role the teacher assumes in such a class is a participant expert, contributing to knowledge build-up and not a body just responsible for knowledge conveyance.

4. All the class members are beneficiaries of such a collaborative approach in sharing knowledge and information.
5. Technology is considered as a vehicle for capturing ideas; therefore, the ideas do not get lost at all; rather, they are kept to be made at the disposal of all the community members seeking continual refinement and progress in the way to learning.
6. In such a class, students are provided with the opportunity to observe the connectivity of the new and old ideas, presented by each class member.
7. Furthermore, while the community's base of knowledge grows up and increases in light of the ongoing exchange of ideas, theories, and other resources attributed to the experts, the flipped classroom will be there to function as the body responsible for deepening the course contents provided to each entailing learner groups.

Using technology per se does not guarantee to improve the quality of instruction. Therefore, there is a need to make pedagogically sound use of it. On the other hand, technology should be only considered as a tool, but the focus should be on pedagogy. In fact, there should be a reflection on how one can integrate innovative models of teaching with technological tools.

Given the effective role of the flipped classroom model in different areas of education, last years have witnessed many studies on flipped classroom instruction and its positive impression on learning behaviors. (Elian & Hamaidi, 2018; Elliott, 2014; Farrah & Qawasmeh, 2018; Fredrickson & Branigan 2005; Granito & Chernobilsky, 2012; Harper & Quaye, 2009; Henrie, Halverson & Graham, 2015; Hunley, 2016; Kinzie, 2010; Prince, 2004; Roach, 2014; Tsai, 2019; Zainuddin & Attaran, 2015).

Enfield (2013) investigated the effectiveness of flipped classroom instruction on the students' performance in two classes at California State University Northridge. Therefore, 50 students participated in his study. The

students' survey results indicated that almost all students had positive comments about the course. Moreover, many of them stated that flipped classroom model was engaging, and challenging likewise. Moreover, they believed that they learned more by using the model.

Butt (2014) investigated students' perception toward using of flipped classroom model. 100 students participated in this study. The purpose of this study was to check students' perceptions toward the pacing of presentation in a flipped model and a lecture style. Findings indicated that students in the flipped model had more positive perceptions in terms of pacing the presentation in comparison to the students' perception in lecture style.

In Australia Fisher, Ross, LaFerriere, and Martiz (2017) revealed that the flipped classroom model had a positive impact on students' engagement, satisfaction, and learning outcomes. Since students reported some frustrations at the initial stages of the study; therefore, it is recommended that students were provided with extra support at the first stages of implementing the flipped model.

In another study, Ayçiçek and Yelken (2018) explored the influential role of the flipped classroom model in encouraging students' classroom engagement. 40 EFL students in a secondary school in Turkey participated in this quasi-experimental study. The experiment was run in a period of four weeks. Results indicated that students' level of engagement in the experimental group with flipped classroom instruction increased at the end of the study.

Tsai (2019) found satisfactory results in favor of promoting EFL learner autonomy as a result of instructing by the flipped model. 124 EFL learners participated in this study. The data, obtained out of distributing the questionnaire among the participants, proved significant differences between performances of the experimental and control groups in terms of learner

autonomous strategy, learner behavior, and learner confidence. Moreover, the results of e-journal and interviews indicated that students' level of autonomy increased psychologically, technically, socio-culturally, and critically.

In a recent study in Iran, Khosravani, Khoshshima, and Mohamadian (2020) explored the effect of the flipped classroom on students' achievement, autonomy, motivation, and willingness to communicate. According to the results students' achievement and autonomy in the experimental group significantly changed. However, students' motivation was promoted to some extent but it was not significantly. Despite many rigorous studies on the effectiveness of the flipped classroom instruction in different areas, few studies reveal the efficiency of the flipped classroom in learner engagement. Therefore, the focus of the current study is addressing this missing area.

## Method

### Design of the Study

The main objective of this research was to investigate the effect of the flipped classroom on students' engagement then, to explore learners' perceptions, impressions, and opinions toward the flipped classroom model; therefore, the design of the present study relied on a mixed method. A mixed-method approach is a type of inquiry in which both quantitative and qualitative approaches are merged in one single study (Creswell, 2009). Thus, according to the types of the research questions and the objectives of this study a mixed-methods approach is selected to obtain a comprehensive and precise result on the effectiveness of the flipped instruction on the Iranian learners' engagement as well as their perception toward the model.

## Participants

The participants of this study were 100 Iranian EFL learners, including both genders ranged from 15 to 25; they were at the intermediate level of English proficiency and were enrolled in Pardisan and Elahe Danesh Language Institutes in Fereydoonkenar, Iran. The participants were drawn out of a population of around 116 EFL learners based on the Preliminary English Test (PET) and were assigned randomly into two groups of experimental and control groups, each of which consisted of 50 participants. The participants of the study were not selected randomly and they were picked based on the convenience sampling method. The selection of the participants in convenience sampling is based on their availability for the study (Mackey & Gass, 2005). Moreover, to probe learners' perspectives to the flipped classroom model, 25 students were picked for a follow-up interviews.

## Instruments and Materials

For the study, four research instruments were employed in the present study. The instruments were: 1) The Preliminary English Test or PET, 2) Engagement questionnaire developed by Wang, Bergin, and Bergin (2014), and 3) Semi-structured interviews with teachers and learners. The instructional material used during the treatment was the coursebook Four Corners 4, written by Richards and Bohlke (2012).

**English Proficiency Test.** To homogenize the students a Preliminary English Test, level B1 (school designed) was used to measure the proficiency level of participants at the beginning of the study. PET examines the four skills: Listening, reading, writing, and speaking. The present study used the reading-writing version of the test. The test included 42 questions and it took participants 90 minutes to answer. The test was conducted before any treatment to homogenize students based on their language proficiency level.



Only those participants whose score fell between one standard deviation below and one standard deviation above the mean were chosen. Finally, according to the results, 100 participants - around 116 students- were selected and assigned randomly into the experimental group with a flipped classroom model, and the control group with non-flipped classroom instruction.

**Learner Engagement Questionnaire.** To measure the effectiveness of the flipped classroom model in learner engagement, the researcher adopted the “Classroom Engagement Inventory” by Wang, Bergin, and Bergin (2014). The questionnaire measures five specific factors of student engagement: *Behavioral engagement-effortful class participation* (students’ self-directed classroom behaviors); *behavioral engagement-compliance* (students’ compliance with classroom norms); *affective engagement* (positive emotions students could encounter in class); *cognitive engagement* (mental effort expended), and *disengagement* (cognitive and behavioral aspects of not engaging in class). The “Classroom Engagement Inventory” is composed of 24 items, which were developed for school-level engagement (Wang, Bergin & Bergin, 2014). The items in the questionnaire are based on a 5-point Likert scale with options of "Never", "Rarely", "Sometimes", "Often", and "Always". The questionnaire involved both positive and negative Likert-type items. The questionnaire was given to the experimental and control groups before and after the treatment. Moreover, the questionnaire was validated by Sever (2014). According to this study, Cronbach Alpha's internal consistency coefficient by deleting one item was 0.930. However, the internal consistency of the scale has been recalculated for this study and the Cronbach alpha coefficient of reliability has been found as .72 and this coefficient has been considered sufficient and acceptable. Therefore, it can be claimed that the research questionnaire is reasonably reliable. Furthermore, to establish face validity, two experts in the field were asked to check the items of the



questionnaires. They both, then, confirmed the face validity of the questionnaire.

**Learners' Semi-structured Interviews.** Semi-structured interviews were conducted on the participants to probe learners' perspectives of the flipped classroom model. To this end, 25 learners were selected on the basis of availability sampling for an in-depth, audio-recorded, semi-structured interview (15-30 minutes long). The interviewees were selected based on their voluntary agreement for further cooperation. The interview questions were developed by the researcher which involved some main questions which were expanded or modified according to the responses received. The interview consisted of five open-ended questions designed to elicit information regarding their perception of the flipped classroom. To ensure the content validity and language appropriateness of the interview questions, three experts were asked to provide their opinion on the interview questions in terms of their content and language. The three experts were Ph.D. holders in TEFL. Moreover, to avoid obscurity and better clarity of the questions and answers, the interview was run in Persian and then translated in English. Students described their feelings and their attitudes toward this strategy. They were then asked about the negative and positive points of the flipped classroom. Additionally, they were asked to compare the flipped instruction model with their ordinary classes. Students' opinions were recorded during the interview and were transcribed, codified, and categorized for further thematic analysis.

**Instructional Materials.** The English textbook "Four Corners 4", developed by Richards and Bohlke (2012), was used in this study. The book includes 12 units. Each unit consists of four parts, including "A, B, C, and D", which focus on different components of language (e.g., vocabulary, grammar, or pronunciation). There are different tasks and exercises for all four skills of

reading, writing, listening, and speaking. In the course of the semester, the introductory four units of the book to the students.

### Procedure

According to the purpose of the study, 100 participants -- around 116 students-- were selected based on the PET and were randomly assigned into experimental and control groups each of which included 50 participants. The participants were picked based on a convenience sampling method. Flipped classroom instruction, as treatment, was administrated to the experimental group for 10 sessions in five weeks. At the first of the study, participants went under the process of homogenizing through PET for their level of English proficiency. Before starting any treatment, participants in both groups filled the learner engagement questionnaire. It is worth mentioning that, before running the treatment researcher and teachers had several meetings about the implementation of the model. In the experimental group, students were expected to watch the video lectures at home before their attendance in the class. Video lectures were created by the researcher along with the participated teachers. To ensure the content validity and appropriateness of the materials, three researchers were asked to provide their opinions on the video lectures in terms of their content. The participants were already provided with the video lectures. The lecture files included grammar, reading, and vocabulary of the Four Corners book level 4. During class time, students were expected to follow the activities based on their prior study at home. The classroom activities included discussing, doing their workbook, solving their problem collaboratively, and practicing the learned materials. In contrast, the control group was run by non-flipped instruction. In fact, it was instructed in a traditional way that teachers taught the material inside the class and students did their homework and assignments outside the classroom. The contents of

the lessons and the amount of instruction were the same for both groups just the method of instruction was different. Then, at the end of the study, the learner engagement questionnaire was conducted as a post-test to all the participants to examine the degree of students' engagement level according to flipped classroom instruction. Finally, among all the participants in the experimental group, 25 were selected for an in-depth semi-structured interview to find their perception of the flipped classroom.

### Data Analysis

The data analysis was carried out based on the data collected from both questionnaires and interviews. In the first phase, repeated measures ANCOVA was conducted for the quantitative research question. Additionally, the Cronbach's alpha of the questionnaire was computed to estimate the internal consistency, and the result was demonstrated in a table. Concerning the qualitative research question of the study in the second phase, thematic analysis was utilized to reveal related themes. Firstly, the recorded interview responses were transcribed precisely and then read repeatedly by the researcher to check any differences in the recordings and the interview transcriptions. Then, it is worth mentioning that the transcriptions were reviewed several times to decode. In this stage, all the potential codes were included from words and phrases to sentences to generate initial coding. Next, all the codes were analyzed cyclically in which it was reviewed with back and forth focus within the data. After that, according to the theme of the questions, the relevant and irrelevant parts of the transcribed text were scrutinized to be ensured of the given code based on the keywords and dominated patterns available. After all the data were coded, the main reported statements were categorized as sub-themes. Then, the arising themes were arranged based on

the dominant patterns in the categories. Finally, after giving a title for each theme, some learners' statements were extracted.

Four major themes emerged in this study. The first theme was named *overall satisfaction* that included two sub-themes of *Innovative and interesting* and *in harmony with needs*. The second emerged theme was *home participation*, which included two sub-theme *video lecturing* and *lack of any homework*. The third main theme was labeled as *classroom participation*, it encompassed three sub-themes of *group activities*, *desirable preparation*, and *engaging*. The last theme was *role of the teacher* that made up the sub-theme of *teacher immediate feedback*, *teacher evaluation*, and *close relationship*.

**Reliability.** The internal consistency reliability of the questionnaires utilized in the current study was investigated running Cronbach's alpha. Table 1 presents the reliability indices of the learners' engagement questionnaire.

Table 1.  
*Reliability Statistics for the Questionnaire*

	Cronbach's Alpha
Affective Engagement	0.76
Behavioral Engagement-compliance	0.82
Behavioral Engagement-effortful	0.73
Cognitive Engagement	0.78
Disengagement	0.80
<b>Total</b>	<b>0.72</b>

As Table 1 shows, the alpha is above .7 which indicates high internal consistency reliability in scales. Therefore, it is concluded that the questionnaire utilized in the current study was considered as having acceptable reliability and well-functioning items, and no item was removed from the questionnaire.

## Results

### Quantitative Phase

**Students' Engagement Questionnaire.** According to the first research question, to understand students' level of engagement before and after the flipped classroom instruction, a classroom engagement questionnaire as pre-test and post-test was given to both students in the experimental and control groups. A repeated measures ANCOVA was conducted to analyze the pre-test and post-test of the experimental and control groups to find if there was any significant difference between the students' engagement in both groups. Descriptive statistics for the pre-test and post-test scores obtained by the experimental and control groups are given in Table 2:

Table 2.

*Descriptive Statistics of Pre-test and Post-test in the Experimental and Control Groups*

		Experimental group		Control Group	
		Mean	SD	Mean	SD
Learner engagement	Affective Engagement	6.70	1.930	5.38	1.677
	Behavioral Engagement-Compliance	7.12	1.745	5.80	2.204
	Behavioral Engagement-Effortful	5.68	2.133	5.14	1.917
	Cognitive Engagement	6.60	2.060	6.04	1.979
	Disengagement	4.42	1.907	5.66	2.153

Table 2 shows descriptive information on the mean scores and standard divisions of students in the experimental and control group. As ANCOVA examines the mean score of experimental and control groups in the pre-test and post-test simultaneously, it can be observed that participants in the experimental group made progress in terms of the four scales of engagement.

Table 3.

*Tests of Equality of Variance for the Subscale of the Engagement (LEVEN)*

Engagement	F	DF1	DF2	Sig
Affective Engagement	.271	1	98	.604
Behavioral Engagement-compliance	.092	1	98	.763
Behavioral Engagement-effortful	1.275	1	98	.262
Cognitive Engagement	3.925	1	98	.050
Disengagement	.989	1	98	.322

As Table 3 indicates, all the Leven's value obtained was found to be times larger compared to the cut-off value of .05. Thus, it may be claimed that the finding confirms non-violation of the equality of error variances assumption.

Table 4.

*The Summary of Results of Analysis of Covariance for the Groups*

Tests of Between-Subjects Effect					
Engagement	DF	Mean of Square	F	Sig	Partial Eta Squared
Affective Engagement	1	68.186	24.951	.000	.205
Behavioral Engagement-Compliance	1	25.030	11.351	.001	.105
Behavioral Engagement-Effortful	1	16.545	6.351	.013	.061
Cognitive Engagement	1	21.360	9.811	.002	.092
Disengagement	1	31.188	13.530	.000	.122

As Table 4 indicates, the value obtained for the sub scales included: Affective engagement [ $f(1) = 24.951, P = .000$  partial  $\eta^2 = .205$ ], Behavioral Engagement-compliance [ $f(1) = 11.359, P = .001$  partial  $\eta^2 = .105$ ], Behavioral Engagement-effortful [ $f(1) = 6.351, P = .013$  partial  $\eta^2 = .061$ ], Cognitive engagement [ $f(1) = 9.811, P = .002$  partial  $\eta^2 = .092$ ], and

Disengagement [  $f(1) = 13.530, P = .000$  partial  $\eta^2 = .122$  ]. The level of significance in all the engagement' sub scales is lower than 0.05 ( $p < 0.05$ ). That is, there was a significant difference between the level of the engagement for the participant in the experimental group and control group, after controlling the possible effects of the pre-test. Therefore, it can be concluded that the flipped classroom model improved students' classroom engagement levels. Also, it can be observed that the highest effect based on the Partial Eta Squared was related to affective engagement.

### Qualitative Phase

To answer the second research question, a semi-structured interview was run with the participants to understand students' perceptions toward flipped classroom instruction. To this aim, out of 50 EFL learners, 25 of them volunteered an in-depth, audio-recorded, semi-structured interview (15-30 minutes long). Data collected in the interviews were directly transcribed to avoid any bias. After transcription, the data were analyzed to detect the semantic themes. The following themes were derived from the data:



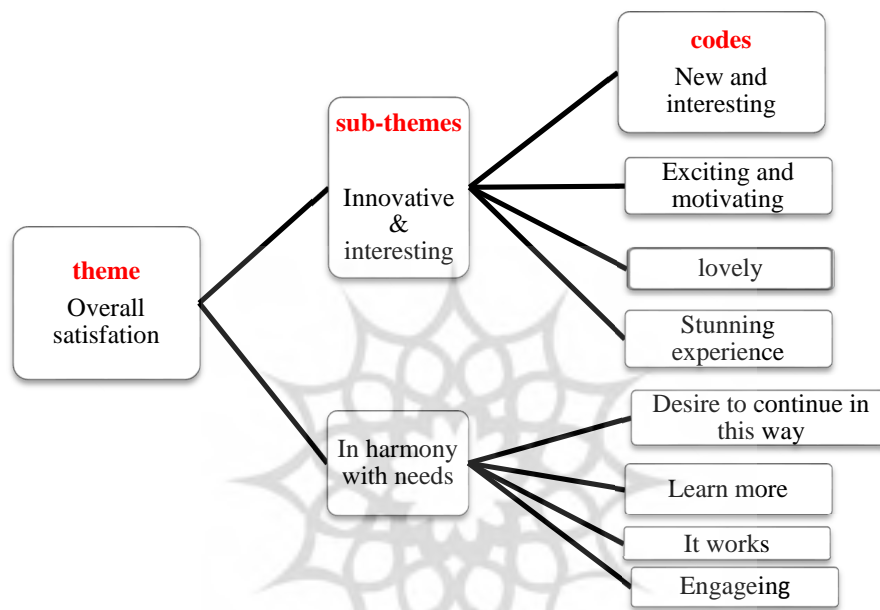


Figure 3.  
Map of the first theme (overall satisfaction)

**Overall Satisfaction.** The most significant theme that emerged from the interview was related to students' overall satisfaction regarding the flipped classroom model. This theme included two sub-themes of *Innovative and interesting* and *in harmony with needs*. 80% of the students found it attractive and motivating, and a great majority of the students preferred this model of learning to the previous ones. The following extracts are some examples of their reasons:

*"I am absolutely delighted by learning in this way. I found this model new and interesting. Our teachers are always following old and boring methods. I think it is time to change".*

*"Learning through flipped classroom model increased my motivation. Every session I was looking forward to my English classes. I think all of our courses in school should be instructed in this way".*

*"Language learning by this model was a stunning experience. I wish I continued my learning English with this model".*

Except for a few neutral ideas, all students had positive perspectives toward the flipped classroom model.

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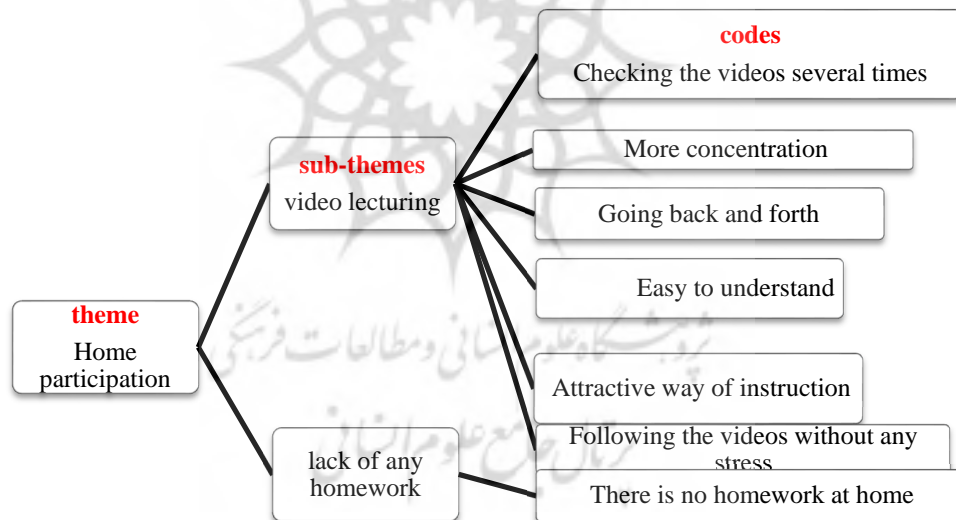


Figure 4.

Map of the third theme (Home participation)

**Home Participation.** The second emerged theme was the *home participation*, which included two sub-theme *video lecturing* and *lack of any*

*homework.* Most of the students (70%) agreed that the flipped classroom model outside of the classroom gives them the opportunity to engage beneficially in practicing the subjects at home. Many students expressed that video lectures in the flipped classroom model were one of the main reasons to persuade them to follow the rules of this model. In fact, they liked watching their lessons via videos because it was fun and easy to understand for them. In addition, many of them added accessibility to the video lectures at home, let them go through the material at their own pace. The following extracts are examples of their reasons:

*"I prefer watching video lessons at home rather than teacher lecturing in class. Actually, learning the materials by watching videos is more understandable than studying the coursebook. I never missed the important points."*

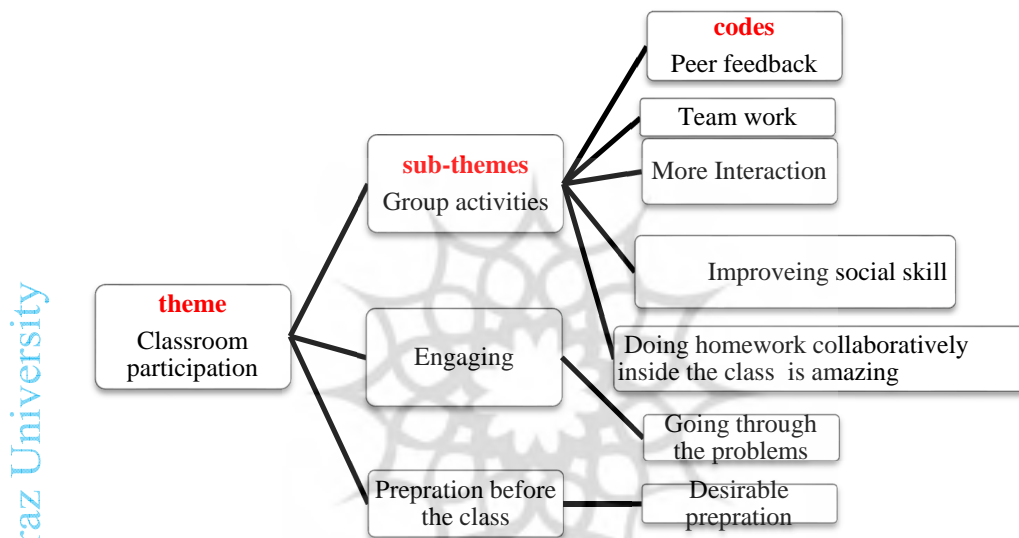
*"I realized that I rarely lost my concentration during watching video lectures compared to textbook readings. I don't know why, maybe it had more audiovisual attraction for me."*

*"To me, learning via watching videos was something new. Every session I opened the video eagerly to see the instructions. In fact, working with technological tools increases my motivation in learning."*

*"The lectures with relief at home enhanced my learning. When I do not understand a section, I can pause and watch again. Or sometimes when I did not know a point I paused the video and searched about it after that I continued again."*

*"Learning occurs for me when I study and review the materials for several times. Full time accessibility to video lectures at home in flipped classroom model gave me the chance to review materials several times."*

Among the 25 interviewees, just five (20%) students had negative ideas towards instruction by video lecture at home.



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Figure 5.  
Map of the third theme (Classroom participation)

**Classroom Participation.** The third main theme was labeled as *classroom participation*, it encompassed three sub-themes of *group activities*, *desirable preparation*, and *engaging*. The majority of students (80%) believed that the flipped classroom model provides opportunities to have more interaction inside the classroom. They explained that their prior class preparation had helped them participate in classroom activity beneficially. Generally, most of the students preferred the classes be held in an interactive way. In the same vein, some students mentioned that face-to-face interaction with peers and teachers helped improve their social skills. In addition, many

of them added that going through problems with their classmates is more enjoyable than doing their homework alone at home.

*"I entered the class with high readiness. In fact, video lectures at home provide this preparation."*

*"I myself really like interactive and communicative classes. Flipped classroom provided more opportunities to communicate with each other. I think our teamwork skills increased in this class."*

*"Struggling with problems with peers in this class gives us the opportunity to benefit from each other's feedback. When I faced a problem I could ask my questions and get responses immediately."*

*"Doing homework inside class is a great idea. You know why? Doing homework is boring and demanding activity for me, but in flipped classroom we did it together and it was fun and it was not boring anymore."*

Except for several neutral opinions, students in total were highly satisfied with their extended participation in the flipped classroom in comparison with their sporadic contribution in traditional classes.

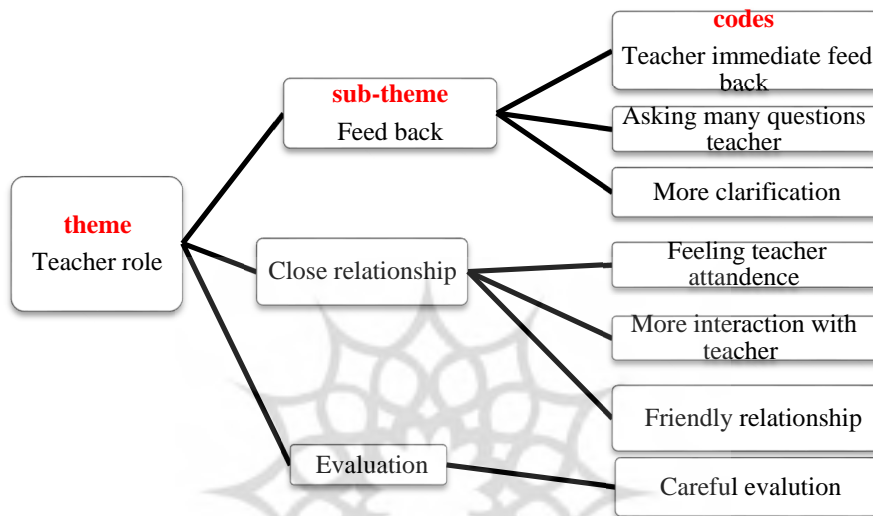


Figure 6.  
Map of the fourth theme (Role of the teacher)

**The Role of the Teacher.** The last theme was *role of the teacher* that made up the sub-theme of *teacher feedback*, *teacher evaluation*, *close relationship*. A great majority of students (70%) preferred their teachers' role in the flipped classroom model more than the one in a traditional class. They believed that teachers in the flipped classroom model have a facilitator's role. Many students stated that teachers in this class could touch their needs and problems closely. They noted that in this class, the teacher has more time for clarification of the doubts. Some of the students in the flipped classroom were delighted that their teacher provided them individualized instruction when it was needed.

*"In my idea teacher's role in the flipped classroom was more helpful and a lot better than the one in our pervious English classes."*

*"I think flipped classroom provided a chance for the teacher to see our strengths and weaknesses, because they had more time to scrutinize our learning behaviors."*

*"Because of time pressure in our pervious classes, teachers could not answer all my questions, but in the flipped classroom, teachers could respond to all of my doubts tolerantly. In fact, they devoted time and energy for each of us individually".*

Except for some neutral ideas, students unanimously liked the teacher's character in flipped the classroom model compared to the traditional one.

### Discussion

According to the findings of the statistical tests in this study, it can be concluded that the participants in the experimental group made statistically significant enhancement in terms of their engagement level. Therefore, the first research question can be answered in this way: Yes, the flipped classroom model has a positive influence on students' engagement since there is a significant difference between pre and post-tests of the students in the experimental group. The results were consistent with (Ayçiçek & Yelken, 2018; Granito & Chernobilsky, 2012; Harper & Quaye, 2009; Henrie, Halverson & Graham, 2015; Kinzie, 2010; Prince, 2004). Regarding the means of engagement sub-scales in the descriptive statistics, it can clearly be noticed that there are striking improvements in affective engagement compared to the other four sub-scales. These findings also overlap with the results of the interview as the first theme of the interview pointed to the overall satisfaction and positive emotion of the majority of the students toward the



flipped classroom model. Many studies confirmed that positive emotions in the learning process increase the level of attention, engagement and most of all, quality of learning. According to Fredrickson's broaden-and-build theory, positive emotions are so effective in extending the spectrum of attention, cognition and action, while widening the scope of an array of mental perceptions, thoughts, and actions (Fredrickson & Branigan, 2005, p. 3105).

The results in the questionnaire and interview revealed how the flipped classroom was capable to alter students emotionally and efficiently. This positive emotion of students may relate to the novelty and uniqueness of the flipped classroom model. This may be due to the fact that students are bored with those repetitive and traditional models of teaching and learning. Also, the role of technology is indispensable in achieving this goal. Active learning, student-centeredness, teamwork, and interaction with peers and teachers were all the concepts that were taught and run in this class.

Regarding the result of the second research question, all students had overall satisfaction with the flipped classroom model and found it as a motivating, enjoyable, and stunning experience which they liked to substitute for the traditional method of learning. In line with the findings in previous research, Elliott (2014) reported if students had the choice between a flipped and a non-flipped classroom, a majority of them would choose the flipped classroom. Also, Enfield (2013) stated that students generally expressed positive comments on the flipped classroom model.

According to the second theme, students reported positive comments on watching video lectures at home. They noted that watching video lectures at home is more understandable for them than classroom instruction because they watched them at their own pace. Consistent with previous studies, students felt that video lectures are preferable to the classroom lectures as it is easier for them to get through while watching video lectures (Khosravani et

al., 2020; Strayer, 2012; Roach, 2014). Also, research by Butt (2014) revealed that student control over the pace of the video engages them with the content.

In the next theme, students described how classroom participation and collaborative work engaged them. The flipped classroom model provides students with a lot of teamwork activities. Going through the problems together, getting the peers' feedback and finding solutions collaboratively, totally engage students and improve their quality of learning. This has been supported by earlier research, (Elliot, 2014; Fisher et al., 2017; Roach, 2014; Zainuddin & Attaran, 2015).

On the issues of teacher role in the flipped classroom model, students prefer teachers' role in the flipped classroom model than the one in a traditional class. In contrast to the traditional model, in the flipped classroom, students found close relationships with their teachers. Students also appreciated the facilitating role of their teachers. They expressed teachers were truly accessible to give them immediate feedback on their needs and problems. These results are in agreement with (Farrah & Qawasmeh, 2018; Zainuddin & Attaran, 2015; Hunley, 2016) who proved the students' satisfaction with the facilitating role of the teachers in flipped classrooms. The passive role of the teachers would presumably ease the burden for the teacher while the teacher is considered as a key factor if one aims to have a successful flipped classroom. On the other hand, the role of the teacher in the flipped classroom is more than his/her role in traditional learning (Elian & Hamaidi, 2018). According to Farrah and Qawasmeh (2018), in a flipped classroom, the teacher should set up the content, map out homework, and provide a welcoming learning space that students can explore.

### Conclusion and Implications

The results of this study revealed that not only did the flipped classroom model boost learner engagement but also it increased learners' positive perception of the model. With the insights acquired from this study, it can be observed how technology integration with an innovative model of instruction met learners' needs. Unfortunately, Iranian EFL learners suffer from a lack of motivation as a result of those repetitive and traditional models of teaching and learning. Therefore, the Iranian EFL context needs essential reconsideration to increase students' motivation. In fact, engaging learners in the learning process is considered as having a significant role in successful learning.

In line with the result of this study, flipped classroom construction has some special components that engage students both inside the classroom and at the home. Teamwork, providing a more interactive environment, beforehand preparation, facilitator role of teacher, learner-centered activities, and discovery learning were inside classroom activities that aroused the students' interest. On the other hand, working with the technological tool, video lecturing, and having their own pace of learning were home activities that could account for generating the necessary motivation. Therefore, it can be concluded that the flipped classroom model as a flexible learning model has a beneficial effect in providing an efficient learning environment.

Thus, the findings of the present study could probably help the learners, EFL/ESL teachers, materials designers, and curriculum developers apply flipped classroom instruction to develop the learners' engagement. Based on the results of the present study, some implications can be listed: First and foremost, teachers need to be informed and trained truly with the principles and techniques of the flipped classroom model. A successful flipped classroom requires educational planning and enough preparation. Preparing

video lectures is one side of the program but more importantly, is how to manage the class in a dynamic and active way. Affording extra teaching time by the flipped classroom model allows teachers to promote inquiry-based and cooperating learning activities.

Moreover, since the flipped classroom is a techno-driven model of instruction, teachers need to have adequate knowledge of making and editing videos to have a successful flipped classroom. Moreover, one important prerequisite to have a successful flipped classroom is adequate students' preparation before attending the class if they don't follow the instruction at the home and attend the class without any preparation they couldn't engage successfully in classroom activities. Therefore, it is recommended that teachers need to inform students clearly to perceive flipped model principles.

Besides, providing video lecturing may enhance the burden on teachers; therefore, another implication concerns syllabus designers and material developers in that they can develop materials that are more in harmony with flipped classroom techniques and principles. Furthermore, based on the findings of this study with an emphasis on increasing learner engagement, technology-integrated learning models like flipped classroom instruction can be used in different educational settings like schools, universities, and language institutes. Therefore, it is recommended that in teacher training courses, universities and official institutes emphasize the necessity of applying techniques and innovations by the teachers to engage learners in the learning process. However, it is necessary to have a special plan to increase technological capacity in the learning environment. Last but not least, researchers can benefit from the results of this study in the sense that they can run future studies on the effect of flipped classroom instruction on other important areas such as the teaching of specific skills, critical thinking, and learner autonomy.

### References

- Ayçiçek, B., & Y. Yelken, T. (2018). The effect of flipped classroom model on students' classroom engagement in teaching English. *International Journal of Instruction*, 11(2), 385-398. <https://doi.org/10.12973/iji.2018.11226a>.
- Bishop, J. L., Verleger, M. F. (2013). *The Flipped Classroom: A survey of the Research*. Paper presented at the ASEE National Conference Proceedings, Atlanta, GA.
- Brown, A. (2012). *A Phenomenological Study of Undergraduate Instructors using the Inverted or Flipped Classroom Model*. (Doctoral dissertation). Retrieved from ProQuest UMI. (3545198)
- Boyer, A. (2013). The flipped classroom: Catering for difference. *Teacher Learning Network*. 20 (1), 28-29. [http://teacherlearningnetwork.org.au/dl65/TL-issue1\\_2013sm.pdf](http://teacherlearningnetwork.org.au/dl65/TL-issue1_2013sm.pdf).
- Butt, A. (2014). Student views on the use of a flipped-classroom approach: evidence from Australia. *Business Education & Accreditation*, 6(1), 33-43.
- Creswell, J.W. (2009). Mapping the field of mixed methods research. *Journal of Mixed Methods Research*, 3(2), 95-108. <http://dx.doi.org/10.1177/1558689808330883>.
- Elian, Sh. & Hamaidi, D. (2018). The effect of using flipped classroom strategy on the academic achievement of fourth-grade students in Jordan. *IJET*, 13(2), 110-125.
- Elliot, Rob. (2014). *Do students like the flipped classroom? An investigation of student reaction to a flipped undergraduate IT course*. In Frontiers in Education Conference (FIE), 2014 IEEE (pp. 1-7), IEEE.
- Evseeva, A. & Solozhenko, A. (2015). Use of flipped classroom technology in language learning. *Procedia – Social and Behavioral Sciences*, 20, 205-209. <https://doi.org/10.1016/j.sbspro.2015.10.006>
- 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.
- Farrak, M., & Qawasmeh, A. (2018). English students' attitudes towards using flipped classrooms in language learning at Hebron University. *Research in English Language Pedagogy. RELP*, 6(2), 275-294.
- Flipped Learning Network (2014). *What is flipped learning? The four pillars of F-L-I-P*. <http://www.FlippedLearning.org/definition>.

- Fisher, R., Ross, B., LaFerriere, R., & Martiz, A. (2017). Flipped learning, flipped satisfaction, getting the balance right. *Teaching & Learning Inquiry*, 5(2), 114-126. <https://doi.org/10.20343/teachlearninqu.5.2.9>.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313-332. Doi: 10.1080/02699930441000238.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. (2004). School engagement: Potential of the concept: State of the evidence. *Review of Educational Research*, 74(1), 59-119. <https://doi.org/10.3102/00346543074001059>.
- Glowa, L. & Goodell, J. (2016). *Student-centered learning: Functional requirements for integrated systems to optimize learning*. Vienna, VA. International Association for K-12 Online Learning (iNACOL).
- Granito, M., & Chernobilsky, E., (2012). The effect of technology on a student's motivation and knowledge retention. *Northeast Education Research Association (NERA) Annual Conference*, 17, 1-22. [http://digitalcommons.uconn.edu/nera\\_2012/17](http://digitalcommons.uconn.edu/nera_2012/17).
- Han, J. Y. (2015). Successfully flipping the ESL classroom for learner autonomy. *New York State TESOL Journal*, 2(1)98-109.
- Hantla, B. F. (2014). *The effects of flipping the classroom on specific aspects of critical thinking in a Christian college: A quasi-experimental, mixed-methods study*. [Doctoral dissertation]. ProQuest Dissertations & Theses Global (ProQuest document ID: 1547356249).
- Harper, S. R., & Quaye, S. J. (2009). *Student engagement in higher education: theoretical perspectives and practical approaches for diverse populations*. New York: Routledge.
- Henrie, C.R, Halverson, L.R, Graham, C.R. (2015). Measuring student engagement in technology-mediated learning: A review. *Computers & Education*, 90(1), 36-53. <https://doi.org/10.1016/j.compedu.2015.09.005>.
- Homma, J. E. B. (2015). Learner autonomy and practice in a flipped EFL classroom: Perception and perspectives in new digital environment. *Chiba University of Commerce Review*, 52(2), 253-275.
- Hunley, R. C. (2016). *Teacher and student perceptions on high school science flipped classrooms: Educational breakthrough or media hype?* Unpublished Ph.D. dissertation, East Tennessee State University, USA.
- James, A.J., Chin, C. K. H. & Williams, B. R. (2014). Using the flipped classroom to improve student engagement and to prepare graduates to meet maritime



- industry requirements: a focus on maritime education. *WMU Journal of Maritime Affairs*, 13(2), 331-343. <https://doi.org/10.1007/s13437-014-0070-0>.
- Johnson-Smith, T. R. (2014). *Student engagement and academic achievement in technology enhanced and traditional classroom environments*. [Doctoral dissertation], Liberty University. Lynchburg, VA.
- Karimi, M. & Hamzavi, R. (2017). The effect of flipped model of instruction on EFL learners' reading comprehension: Learners' attitudes in focus. *Advances in Language and Literary Studies*, 8(1), 95-103.
- Khosravani, M., Khoshsima, H., & Mohamadian, A. (2020). On the effect of flipped classroom on learners' achievement, autonomy, motivation and WTC: Investigating learning and learner variables. *Journal of English Language Teaching and Learning*, 12(25), 175-189.
- Kvavik, R. B., Caruso, J. B. & Morgan, G. (2004). *ECAR study of students and information technology 2004: Convenience, connection, and control*. Boulder, CO: EDUCAUSE Center for Applied Research. 784 *British Journal of Educational Technology*, 39(5). <http://www.educause.edu/ir/library/pdf/ers0405/rs/ers0405w.pdf>
- Kinzie, J. (2010). Student engagement and learning: Experiences that matter. In J. Christensen Hughes & J. Mighty (Eds.), *Taking stock: Research on teaching and learning in higher education* (pp. 139-153). Montreal & Kingston: McGill-Queen's University Press.
- Kuh, G. D. (2009). The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, 2009(141), 5-20.
- Mackey, A & Gass, S. M. (2005). *Second language research*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Petrillo, J. (2016). On flipping first-semester calculus: A case study. *International Journal of Mathematical Education in Science and Technology*, 47(4), 573-582. <https://doi.org/10.1080/0020739X.2015.1106014>.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231. <http://dx.doi.org/10.1002/j.2168-9830.2004.tb00809.x>.
- Quint, C. L. (2015). *A study of the efficacy of the flipped classroom model in a university mathematics class* (Order No. 3707108). Available from ProQuest Dissertations & Theses Global: Social Sciences. <http://searchproquest.com/DocView/1695832181?Accountid=142908>.



- Richards, J. C., & Bohlke, D. (2012). *Four Corners*<sup>3</sup>. New York: Cambridge University Press.
- Roach, T. (2014). Student perceptions toward flipped learning: New methods to increase interaction and active learning in economics. *International Review of Economics Education*, 17, 74-84. doi: 10.1016/j.iree.2014.08.003.
- Sankey, M. D., & Hunt, L. (2013). Using technology to enable flipped classrooms whilst sustaining sound pedagogy. In H. Carter, M. Gosper & J. Hedberg (Eds.), *Electric Dreams* (p. 785-795). Proceedings Ascilite.
- Sever, G. (2014). The application of flipped learning model on individual violin lessons. *Journal of Qualitative Research in Education*, 2(2), 27-42.
- Strayer, J. F. (2007). *The effects of the classroom flip on the learning environment: A comparison of learning activity in a traditional classroom and a flip classroom that used an intelligent tutoring system*. (Doctoral Dissertation), the Ohio State University. <http://etd.ohiolink.edu/view.cgi/Strayer%20Jeremy.Pdf?osu1189523914>.
- Strayer, J. F. (2012). How learning in an inverted classroom influences cooperation innovation and task orientation. *Learning Environments Research*, 15(2) 1-23. <http://dx.doi.org/10.1007/s10984-012-9108-4>
- Tétreault, L. P. (2013). *The flipped classroom: Cultivating student engagement*. A Project Submitted in Partial Fulfillment of the Requirements for the Degree of Master Thesis, Simon Fraser University, and Canada.
- Taylor, L. & Parsons, J. (2011). Improving Student Engagement. *Current Issues in Education*, 14(1), 1-33 <http://cie.asu.edu/>.
- Trowler, V. (2010). *Student engagement literature review*. York, UK: Higher Education Academy.
- Tsai, Y. R. (2019). Promotion of learner autonomy within the framework of a flipped EFL instructional model: Perception and perspectives. *Computer Assisted Language Learning*, 1(1), 1-32. <https://doi.org/10.1080/09588221.2019.1650779>
- Wang, Z, Bergin, C., & Bergin, D. A. (2014). Measuring engagement in fourth to twelfth-grade classrooms: The classroom engagement inventory. *School Psychology Quarterly*, 29(4), 517-535. <https://doi.org/10.1037/spq0000050>
- Wiginton, L. B. (2013). *Flipped instruction: An investigation into the effect of learning environment on student self-efficacy, learning style, and academic achievement in an algebra I classroom*. [Unpublished Doctoral Thesis], Tuscaloosa, Alabama, USA.

- Willms, J. D., Friesen, S. & Milton, P. (2009). *What did you do in school today? Transforming classrooms through social, academic and intellectual engagement.* (First National Report) Toronto: Canadian Education Association.
- Yujing, N. (2015). Influence of flipped classroom on learner's empowerment: A study based on English writing courses in China. *Journal of Literature, Languages and Linguistics*, 12(1), 1-7.
- Zainuddin, Z., & Attaran, M. (2015). Malaysian students' perceptions of flipped classroom: A case study. *Innovations in Education and Teaching International*, 53(6), 660-670.  
<https://doi.org/10.1080/14703297.2015.1102079>