

## **Writing Performance, Higher-order Thinking, Engagement, and Satisfaction in Flipped Classroom Teaching Model: A Study on IELTS Candidates**

**Hamed Ghaemi \***

Bahar Institute of Higher Education, Iran

**Noushin Boroushaki**

Mashhad University of Medical Sciences, Iran

### **Abstract**

The present study aims at investigating the impact of flipped classroom teaching mode on the development of writing performance, higher order thinking skills, engagement, and satisfaction of IELTS candidates. The flipped classroom model was adapted from an experienced IELTS teacher's lesson plan. Each session of FCTM consisted of Before the lesson stage where students watched instructional videos, during the lesson phase in which students continued to work on assignment and had to finalize the writing and present it to peers to be more analyzed, and after the lesson stage in which participants were supposed to submit their assignment for grading. The findings showed that a statistically significant difference between students' scores in the post-test in both experimental and control groups. Students' satisfaction and engagement level between the experimental group and control group on post-test phase indicated that almost the majority of students on pretest were not satisfied; nevertheless, on the post-test, they showed high satisfaction. There were highly statistically significant differences between students' level of satisfaction. As for students' engagement, the analyzed results showed that there were highly statistically significant differences between students' engagement. Considering the IELTS writing test, there was a significant difference in the scores for FCTM in essay writing of IELTS candidates and the traditional model. Specifically, our results suggest that when FCTM is used by IELTS instructors, the essay scores and performance of candidates ameliorate dramatically. Moreover, the results from the SEM reveal that there are significant relationships between the variables.

**Keywords:** flipped classroom model, writing performance, higher-order thinking skills, engagement, satisfaction, IELTS candidates

### **INTRODUCTION**

Traditional teaching and learning approaches are in conflict with constructivist approaches due to their teacher-centeredness (Brooks, 2002). Traditional lectures – specifically in higher education – are dealing with the matter of pacing. The information

presented might be familiar for some students, while others might have difficulty in comprehending what is presented so rapidly or might lack the necessary knowledge in order to take in the concepts which were introduced concepts (Goodwin & Miller, 2019). The innovative trends in teaching and learning promote student-centered approaches where students are responsible for their own learning in a context that involves participation, problem-solving, critical thinking, various activities, meaningful interaction, and group work, not just having passive students who are instructed through rote memorization thus being unable to progress and develop. "For many decades, scholars, political leaders. And the public has been calling the attention of educators and administrators to embark upon a profound transformation of our institutions of higher education" (Grazzados-Bezi & College, 2015:69). Accordingly, to overcome this issue, various learning models were suggested. One presented model is blended learning which incorporates both online and face-to-face interactions. The aim is to improve the learner-centered paradigm and facilitating student learning (Reinders, 2020). In flipped instruction which is a form of blended learning, online learning is connected with face-to-face learning.

However, the outside activities assigned in flipped classrooms are not necessarily online; handouts and hard copies might also be involved. Therefore, implementing educational videos do not imply flipping a classroom as they are not compulsory. During the last few years, the flipped classroom as a unique instructional context has gained worldwide popularity among educators (Obari & Lambacher, 2015). In this pedagogical model, the traditional class lectures and homework assignments are reversed. Instruction is delivered outside of class, and assigned homework is moved into the classroom, thus inverting the traditional teaching methods (Du, Fu & Wang, 2020). Accordingly, teachers can put more time into tutoring students than giving lectures (Wallace, Walker, Braseby, & Sweet, 2020). In this model, a teacher is not a provider of knowledge but an organizer, facilitator, and guide (Basal, 2015).

Flipped learning as an innovative style of learning is gaining popularity Hamdan, McKnight, McKnight, & Arfstrom, (2019). The accessibility and convenience of technology have made it possible for language instructors to apply it frequently for learning (Beetham & Sharpe, 2007, Greenhow et al., 2020). In this model of learning, the affordances of digital devices are utilized to revert the in-class lectures and also the out-of-class tasks assigned as homework. In other words, flipping a class involves giving the basic instructions by means of digital tools such as a video which could be watched before the session; thus, teachers can make use of the class time organizing collaborative activities (Hamdan, McKnight, McKnight, & Arfstrom, (2019). As Greenhow et al. (2016) stated, allocating more time for a variety of tasks in class can 'engage students with higher order thinking.' (p.391).

Above all, flipping a class is not just about reorganizing a lecture, but it also changes one's outlook. Not only the context of learning is altered, but also students' attitudes towards learning are changed. A flipped learning focuses more on a student-centered approach to learning where learners are expected to play an active role in their learning; thus, they are encouraged to get involved in the learning environment (Greenhow et al., 2016).

Teaching and learning techniques and possibilities are frequently influenced by rapid technological advancements. The concept of flipped learning emphasizes the importance of learners using a range of resources rather than passively consuming knowledge from a limited set of sources. As a result, flipped learning is a learner-centered context for the development of higher-order thinking skills. According to Bloom's taxonomy, higher order thinking involves analysis, evaluate, and create (Brookhart, 2010). More specifically, it is a combination of tools, most of which are virtual, that the learner choose to support various areas of the learning process, from setting the goal setting to selecting the content and finalizing with an evaluation (Brookhart, 2010).

As a two-dimensional domain, Bloom's Revised Taxonomy encompasses two categories, namely cognitive and knowledge. Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating are the six cognitive stages of increasing complexity. The first cognitive dimension, remembering, deals with recalling related information from long-term memory. The next dimension, Understanding, "involves determining the meaning of instructional messages, including oral, written, and graphic communication" (Du, Fu, & Wang, 2020). Applying refers to the use of a process or learnt content in a specific context. Breaking down more difficult information into its basic elements, discovering relationships among them, and identifying organizational principles are all part of the analysis process. Drawing conclusions based on a set of criteria and standards is referred to as evaluating. As the last dimension, Creating, entails putting components together to create a new and integrated whole or developing a new product.

## **STATEMENT OF THE PROBLEM**

Innovations in teaching and learning should be employed when learning a foreign language since language acquisition as a social activity deals with both students' activeness and participation. In a flipped classroom, students are familiarized with English outside the class through reviewing papers related to the course, PowerPoint presentations prepared by the instructor, watching videos, and listening to audios. This allows teachers to make use of the class time to discuss students' opinions, promote thinking, collaborative learning, and assign various student-centered tasks. There is a limited amount of research on the flipped classroom, specifically when flipped instruction is involved. Research carried out on the use of flipped instruction in teaching and learning English examines the method from various perspectives. In some studies, student's attitudes and perceptions towards flipped classes were explored (Basal, 2015). Other studies (Herreid & Schiller, 2019) examined the effect of flipped instruction on the writing performance of students. The results showed the positive impact of flipped instruction on learners' written production.

Furthermore, Obari and Lambacher (2015) studied the use of mobile technologies in a flipped classroom and found that flipping classes had a positive effect on language achievement. In a study by Basal (2020), the researcher worked on the effect of flipped classes on learners' engagement; however, the results revealed that less motivated students were less engaged. The aim of the study is to understand and build awareness of this teaching paradigm. Although research in the area is quite limited, previous studies

show positive results regarding students' engagement and achievement when flipped classes are involved (Herreid & Schiller, 2019).

## **LITERATURE REVIEW**

Flipped teaching model is an educational approach in which the time of class is spent on exploring deeper into topics and generate meaningful opportunities to practice, whereas instructional technology are employed to offer knowledge outside of the class (Ritchhart, & Perkins, 2008). In recent years, the influential impact of flipped learning in improving learners' higher order thinking skills has received some attention. Flipped learning assists in the creation and provision of an active and communicative learning environment. Furthermore, learners internalize information by application and evaluation, which is more beneficial to deeper learning as it stimulates creativity and higher order critical thinking. The main purpose of education is to assist students develop higher-order-thinking skills. The new learning method focuses on the potential and interests of the students. They are in charge of the learning activities assigned outside of the classroom. Videos, audios, websites, and online readings are among the most appealing sources of learning. Creative educators should use their abilities to create an engaging atmosphere that encourages students to collaborate and participate in group or pairwork activities. Regardless of learners' role in the society, higher-order thinking skills facilitate acquiring knowledge and its transforming it into responsible practices. For the analysis of new contexts, learners would need to develop critical thinking. As a result, their ability in asking questions, solving problems, and making decisions will be defined through reasonable thinking.

Ritchhart and Perkins (2008) further suggest that students should be subjected to 'learning' before to class and then concentrate on the 'processing' phase of learning inside the class. Being exposed to new information outside the class through watching recorded lectures provides the opportunity for instructors to make the best out of the class time by scaffolding individual learning, giving direct feedback, correcting misunderstandings, helping students to organize, integrate, and apply new information. When a flipped classroom is combined with Cognitive Apprenticeship, which is defined as a form of instruction that tries to make thinking visible (Collins, Brown, & Holum (1991), it has the ability to stimulate student learning. As Ritchhart and Perkins states (2008, p. 1-2), 'learning is a consequence of thinking.' To promote students' thinking skills, teachers should make thinking accessible to learners by externalizing their thoughts through writing, speaking, painting, or any other techniques. Learning can be more effective for students when teachers model thinking processes and directly show learners how to think and and present their ideas.

EFL students could have greater exposure, time, and opportunity to learn both in and outside of the language classroom using a flipped model reinforced by Bloom's updated Taxonomy and Cognitive Apprenticeship. It uses active learning methodologies to change from teacher-centered instruction to student-controlled learning. In traditional teaching, it is difficult to provide immediate feedback for learners, however, flipped instruction could increase knowledge building process (Wallace, Walker, Braseby, & Sweet, 2020).

Students' engagement in the learning process is considered critical in language learning; thus, passive students are incapable of learning a language effectively. Engagement is defined by referring to the degree to which students are engaged actively in a number of different tasks that are likely to result in effective learning (Coates, 2005). According to Kuh (2020), student engagement in the learning process entails greater involvement and effort. They must have access to and interact with every teaching procedure. As a result, instructors should provide engaging and stimulating tasks for pupils to promote their active participation. The extent to which students are engaged in learning can be determined by the way a course is designed. Therefore, flipped classes are seen to be productive as students are involved in various activities either at home or in class. Furthermore, flipped teaching method promotes autonomy allowing students to make decisions which leads to greater interest in a task and thereby increasing their engagement (Pink, 2020).

In a study, Moran (2020) investigated students' engagement in a flipped classroom. The results showed that flipped instruction could be considered an educational tool for promoting students' engagement in an English Language Arts class, but it is not the only means. Moreover, Bormann (2020) found that flipped instruction could provide an engaging context leading to greater performance and better readiness for learning 21st-century skills. As a result, there is a need for greater research into the influence of flipped instruction on student engagement.

Despite learners' level of engagement in learning, their satisfaction should also be taken into account. Student satisfaction refers to having a positive feeling about the activities in class and experiences involved in learning. In a traditional class, students are seen to be dissatisfied as the teacher is the authority and students are passive learners. Students feel isolated since there is less interaction. Also, students avoid asking questions and participating in discussions as they fear making mistakes (Alsowat, 2016). In flipped teaching model, however, students are seen to be more satisfied as it is more student-centered, which provides meaningful learning.

In a study on high school students (Farah, 2020), flipped teaching was found to be favorable among students. Also, AlRowais (2020) reported that flipped instruction resulted in students' higher achievement and positive attitude towards the selected courses. Prefume (2015) examined flipped teaching approach in a Japanese language class. The results indicated that students held positive views about flipped instruction. Gross et al. (2015) studied the impact of flipped instruction on student satisfaction, engagement, and academic achievement. They found that flipped classroom resulted in higher levels of engagement and satisfaction among students. This was consistent with the findings of Hung (2015) on English language learners. Students achieved better outcomes, had a better experience of learning, and put more effort into learning. According to the studies above, flipped instruction enhances student engagement and satisfaction in the process of learning.

The current study is the first attempt to present an EFL Flipped Classroom Teaching Model (EFL-FCTM) and evaluate its impact on higher-order thinking skills as flipped instruction promotes these skills through innovative tasks assigned in class. Moreover, it

aims at investigating learners' satisfaction and engagement in the higher education context to fill the gap in the field.

## **RESEARCH QUESTIONS AND PURPOSE OF THE STUDY**

To acquire a better understanding of the implementation of the flipped classroom model and to examine how to use this approach to promote writing performance of IELTS candidates as well as higher-order thinking, the following research questions were posed:

1. Does FCTM have any statistically significant impact on the development of higher order thinking skills of IELTS candidates?
2. Does FCTM have any statistically significant impact on the development of writing skill of IELTS candidates?
3. Does FCTM have any significant impact on students' satisfaction and engagement?
4. Is there any significant relationship between the components of higher order thinking skills, satisfaction and engagement, and IELTS writing skill assessment criteria?

## **METHOD**

### **Procedure**

At the beginning of the study, 36 voluntary IELTS candidates were selected and randomly assigned to two groups of controlled and experimental. Both groups received an IELTS writing task 2 test, i.e., essay writing, to complete in 40 minutes. Having done the test, the candidates were given 20 minutes of rest followed by a questionnaire of higher-order thinking which was to be completed in 30 minutes. Finally, a student engagement questionnaire was distributed among candidates to be completed. The collected data were used to assess the IELTS candidates' performance in the post-test. The controlled group class was run using a traditional method of presentation and practice technique. However, the flipped classroom version was refined from the lesson designed by an experienced IELTS teacher.

The original design adopted a traditional approach in which the class activities mainly comprised a 45-min presentation session of the paragraph writing for the first five sessions and essay writing for the second five sessions, as well as a 45-min hands-on practical session. However, each session of FCTM consisted of Before the lesson stage where students watched instructional videos, during the lesson phase in which students continued to work on assignment and had to finalize the writing and present it to peers to be more analyzed, and after the lesson stage in which participants were supposed to submit their assignment for grading. When adopting the flipped classroom approach, the presentation session was removed from the classroom time and replaced by online instructional videos. The videos were already prepared by two professional IELTS instructors who are trained by IDP Australia and Vancouver TESOL Training Center. This arrangement gave the teacher more class time to organize student-centered learning activities. At the beginning of the class, the teacher was able to arrange a brainstorming session before and after the hands-on task. There was also sufficient class time for

students to show their work in the second part of the class and share their own paragraph writing samples at the end of the session. In general, students had more time in class to conduct their hands-on projects. Furthermore, when the teacher noticed that some learners could not complete the assignment, they could watch the instructional videos for 10 minutes before beginning the tasks. The work of the students was collected and examined. This was a crucial source of quantitative data that allowed the researcher to assess the learners' progress. Having completed ten sessions of training, the IELTS candidates in both groups received an IELTS writing task two test, i.e., an essay writing test, the same higher-order thinking questionnaire, and a student engagement questionnaire. The participants were also invited to participate in an interview. However, only 14 accepted and participated in the interview, which was conducted one week after the completion of the course. The data collected from the interview were used for the qualitative part of the study. That's why the study enjoys a mixed-method design.

### **Instruments**

As stated earlier, the first and the most significant instrument used for the purpose of data collection was IELTS writing task two test selected from IELTS Cambridge No. 15, the latest version published by Cambridge ESOL Examination Center. The test was used to measure how much the writing performance of candidates improved as a result of FCTM. As well as this, a questionnaire of higher order thinking skills was used to assess the development in higher order skills of IELTS candidates by virtue of training they received in FCTM. Finally, A five-point Likert scale questionnaire was utilized to determine student engagement. To measure students' satisfaction and engagement, a KPI Student Satisfaction and Engagement Survey developed by Ontario Colleges of Applied Arts and Technology was used. Finally, A semi-structured interview was also constructed by the same two professional IELTS instructors who designed the FCTM.

### **Data analysis**

Higher-order thinking skills questionnaire included 30 questions divided into three levels based on Bloom's Taxonomy. It was analyzing (15 questions), evaluating (10 questions), and creating (5 questions). These questions were multiple-choice and open-ended questions. Each question scored as one grade for a correct answer and zero for the wrong answer with a total score of 30 points. The reliability of the tool was confirmed by Cronbach's Alpha test  $r = 0.89$ . A five-point Likert scale questionnaire to determine student engagement was used, including 19 items ranging from strongly agree to strongly disagree. The total score was 95 points. The reliability of the tool was reported by Cronbach's Alpha test  $r = 0.86$ .

The collected data were categorized, tabulated, and summarized. Data were computerized and analyzed by SPSS version 20 (SPSS Inc., Chicago, IL, USA). Two types of statistics were done, descriptive and analytical, to examine the research hypothesis. Descriptive statistics were done using percentage (%), mean and standard deviation (SD). Analytical statistics used in the study were Chi-Squared ( $\chi^2$ ) and Independent Sample t-test. Statistically significant difference was found if  $P < 0.05$ .

The mean grades of higher-order thinking skills between experimental and control groups on the pre-test was calculated. Mean students' grades in the experimental group were  $5.31 \pm 0.33$ ,  $4.96 \pm 0.13$ ,  $2.00 \pm 0.55$ , and  $13.15 \pm 1.75$  compared to  $4.84 \pm 0.77$ ,  $3.89 \pm 0.20$ ,  $1.99 \pm 0.61$ , and  $12.43 \pm 1.49$  in the control group, respectively.

**Table 1.** Group Statistics for Higher-order thinking (HOT)

	Experimental Group		Control Group	
	Mean	Std. Deviation	Mean	Std. Deviation
HOT pre-test scores	5.31	.33	4.84	.77
	4.96	.13	3.89	.20
	2.00	.55	1.99	.61
	13.15	1.75	12.43	1.49

There were no statistically significant differences between students at 0.05% level of statistical significance. The mean grades of higher-order-thinking skills between experimental and control groups on post-test was also calculated. It clarified that on the post-test examination, the mean grades of students within the experimental group was higher than their peers within the control group. It was  $11.16 \pm 2.74$ ,  $17.79 \pm 4.04$ ,  $4.42 \pm 1.90$ , and  $27.21 \pm 1.38$  compared to  $5.01 \pm 0.07$ ,  $2.03 \pm 2.08$ ,  $2.19 \pm 1.95$ , and  $12.98 \pm 8.32$  in the control group, respectively.

**Table 2.** Group Statistics for Higher-order thinking (HOT)

	Experimental Group		Control Group	
	Mean	Std. Deviation	Mean	Std. Deviation
HOT post-test scores	11.16	2.74	5.01	.07
	17.79	4.04	2.03	2.08
	4.42	1.9	2.19	1.95
	27.21	1.38	12.98	8.32

**Table 3.** Independent Samples Test for HOT

		Levene's Test for Equality of Variances		t-test for Equality
		F	Sig.	t
FCTM	Equal variances assumed	.18	.005	32.352
	Equal variances not assumed			32.352

The 28 participants who received FCTM ( $M = 6.5$ ,  $SD = 4.5$ ) compared to the 8 participants in the control group ( $M = 4.8$ ,  $SD = 2.7$ ) demonstrated significantly better HOT,  $t(0.18) = 32.35$ ,  $p = .005$ . There was no significant effect for sex,  $t(21) = 23.7$ ,  $p = .005$ , despite women ( $M = 18$ ,  $SD = 5$ ) attaining higher scores than men ( $M = 3$ ,  $SD = 2.8$ ).

Students' satisfaction and engagement level between the experimental group and control group on post-test phase demonstrated that nearly the majority of students (82.73%) on pretest were unsatisfied; meanwhile, on post-test, they were very satisfied (93.83%). There were highly statistically significant differences between students' satisfaction level



at 0.001% level of statistical significance. Hence, there were highly statistically significant differences between students' engagement level at 0.001% level of statistical significance.

**Table 4.** Group Statistics for Satisfaction and engagement (SE)

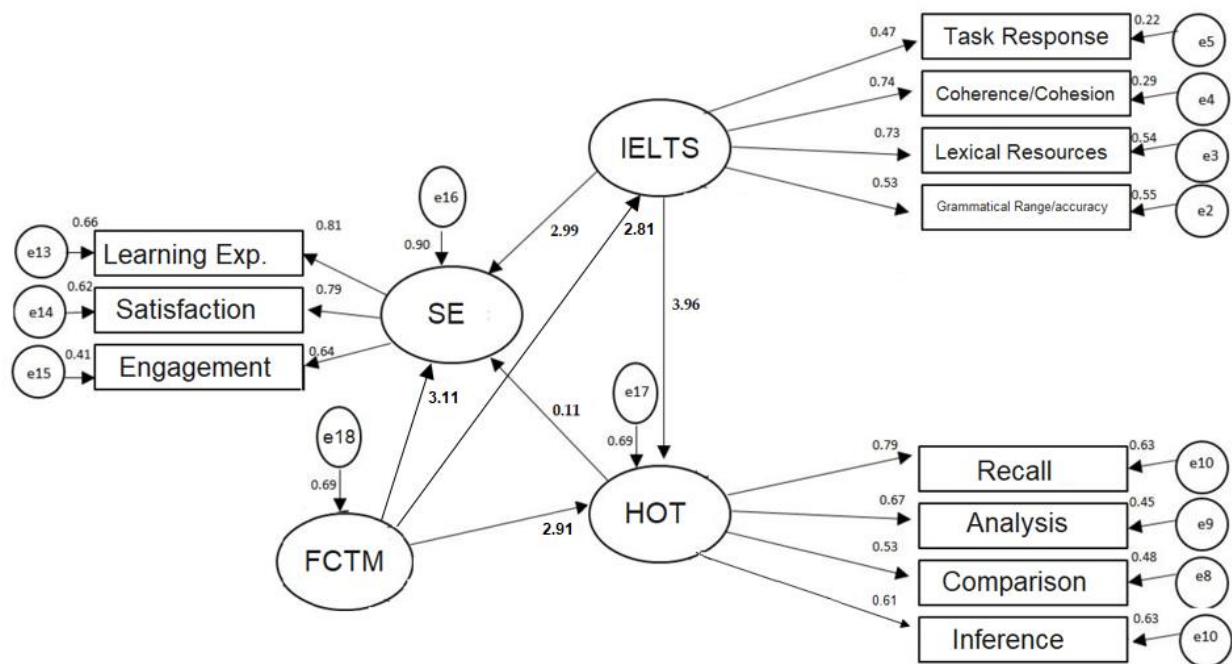
	Experimen tal_Group		Mean	Std. Deviation	Std. Error Mean
SE	Pretest	36	82.37	.2728	.0476
	Posttes t	36	93.83	.2760	.0490

**Table 5.** Independent Samples Test for IELTS Writing

		Levene's Test for Equality of Variances		t-test for Equality
		F	Sig.	t
IELTS Writing Test	Equal variances assumed	8	.02	4.69
	Equal variances not assumed			4.77

As for the IELTS writing test, an independent sample t-test was conducted to compare the differences between pre-test and post-test in both control and experimental groups. There was a significant difference in the scores for FCTM in essay writing of IELTS candidates ( $M=5.2$ ,  $SD=2.3$ ) and traditional model ( $M=3.2$ ,  $SD=0.89$ ) conditions;  $t(8) = 4.69$ ,  $p = 0.020$ . These results suggest that FCTM really does have an effect on IELTS essay writing score. Specifically, our results suggest that when FCTM is used by IELTS instructors, the essay scores and performance of candidates ameliorate dramatically.

As the second part of the study and in order to answer research question four, a modeling approach was utilized to assess the relationship between the variables in the present study. As figure 1 illustrates, a number of indices were appraised to examine the model fit, consisting of the chi-square/df ratio (lower than 3 or 4), the normed fit index (NFI), the good fit index (GFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) of about .07 or .08 (Schreiber, Amaury, Stage, Barlow, & King, 2006). The  $\chi^2$  value (18.777), the df ratio (852), NFI (.99), and CFI (.97) all touched the acceptable fits. Therefore, the proposed model has a good fit with the experimental data.



**Figure 1.** Relationships between the components of SE, HOT, IELTS and FCTM

This model only shows the relationship between the latent variables and the observed variables of the study. The values which are written on each arrow are demonstrated in the Estimated Mood, and they cannot be appropriately interpreted. In all SEM models run in LSREL software, the values of Estimated Mood are not interpretable because there is no principle to which one can compare these values. In order to make the values interpretable, we should change the mood from Estimated Mood to T-Value Mood. Having done that, we can conclude that there is a meaningful relationship between FCTM and other variables of the study, i.e., HOT, SE and IELTS.

The relationship between HOT as an observed variable and its four latent variables, i.e., recall, analysis, comparison, and the inference was statistically significant as well. Likewise, the relationship between SE and its latent variables, i.e., learning experience, satisfaction, and engagement. Similarly, there is a meaningful relationship between IELTS Writing as the Observed variables and its latent variables, which are task response, cohesion/coherence, lexical resources, and grammatical range and accuracy.

With regard to the main variables of the study, there was a statistically strong relationship between IELST writing and SE, i.e., T-Value or Path Coefficient is 2.99. Based on the SEM literature, if the T-value is larger than 1.96, we can conclude that there is a statistically significant relationship between the variables. Consequently, there is a meaningful relationship between IELST writing and SE. It can be seen that T-value between IELTS Writing and HOT is 3.96, so we can conclude that there is a statistically significant relationship between the IELTS Writing and HOT. As figure 1 shows, the relationship between FCTM and HOT (2.91), SE (3.11), and IELTS (2.81) are statistically significant, confirming the results of the first part of the study.

The semi-structured interview was conducted on the volunteer participants. Out of 28 students in the Experimental group, only 11 volunteered to take part in the interview.

The first and the eighth participants claimed that FCTM was an innovative method for them, leading to more excitement, engagement, and satisfaction. They believed that the in-class learning environments were highly structured, which means the instructor had to plan for every single minute to keep the students engaged with the lesson. The second and the tenth volunteers said that the in-class activities needed to be designed in such a way that students solved problems, answered quizzes, applied or retrieved the content that they had learned earlier in the flip video. The candidates number three and nine also stated that students were massively encouraged via grading, in-class activities, and educator expectations to complete out-of-class work and showed up for in-person sessions. Student four believed that in-class time was somewhat noisy and disorganized compared with the quiet common type of a well-behaved class during a lecture. The next student, i.e., number five, stated that in the teacher-centered class, the teacher was the main source of information, like “sage on the stage,” who gives information to students, generally via lecture mode. In the Flipped Learning model, there was a switch from a teacher-centered classroom to a student-centered approach where class time was determined for exploring the content of the topic to a greater extent and creating a richer learning environment. Participant number six believed that If the teacher used flipped strategies that weren't connected to the content of what he taught, then students may be busy and active, but they were not learning. They may be talking and interacting, but they were missing why it mattered. Students may perceive these flipped activities as “busy work,” and they didn't see the value of participating. Candidates number seven and eleventh also claimed that teacher ought to reconsider how the pre-class work was structured and whether or not students saw the value of the flipped model.

## **DISCUSSION**

Language can function as a means of improving higher-order thinking skills in language classrooms; students should study language to build and use their cognitive skills in contexts that go beyond the language (Burns & Richards, 2012). Practicing higher order thinking skills improves both satisfaction and achievement in language learning.

This study aimed to determine the impact of the EFL Flipped Classroom Teaching Model on students' higher order thinking skills and writing scores. Furthermore, their level of satisfaction and engagement were examined. The results of this research were in line with the finding of other studies in the field. In relation to higher-order thinking skills, there was no significant difference between experimental and control groups at pre-test. These results were supported by Beetham and Sharpe (2007), who conducted a study on the flipped classroom and higher order thinking skills of nursing students. This emphasizes the need to apply certain teaching strategies to attain higher thinking skills in a language learning context.

The results of the higher-order thinking questionnaire revealed a statistically significant difference in pre and post-test between the two groups. This was consistent with a study carried out by Alsowat (2016) on graduate students' higher-order thinking skills. Research also shows that flipped classroom can promote higher thinking as pausing the videos allows the students to think about the content. Consequently, instructors will have

the opportunity to apply the higher thinking skills in class rather than giving lectures. Also, they can focus more on providing constructive feedback, supporting problem-solving and effective communication. As Zainuddin and Halili (2016) have noted, flipped classes can improve higher-level learning through group discussions.

Flipped classroom teaching assists students in making their own choices and encourages autonomy that improves their engagement and interest in an activity (Pink, 2020). The findings of this study were consistent with Alsowat (2016) and Obari and Lambacher (2015). Alsowat (2016) stated that flipped teaching model encouraged students in learning a language, thus being more engaging than conventional classes. As Obari and Lambacher (2015) mentioned, flipped classes provide a vibrant, interactive, and situational learning environment allowing learners to manage their time of learning, pace, and context. However, Reinders (2020) found that in an English Language Arts classroom, flipped instruction might be one of the instructional methods that improve student engagement. In the current study, flipped instruction was more engaging as compared to the conventional method of teaching essay writing. Students were motivated to apply the writing techniques through a variety of flipped activities.

As for students' satisfaction, the findings were in line with the previous research, which indicated that students were generally satisfied with the flipped instruction (Obari & Lambacher, 2015; Alsowat, 2016). Satisfaction is considered an important aspect of learning as it encourages students to actively take part in the process of learning. Shifting from conventional ways of teaching to more efficient instructional methodologies demonstrated a high level of satisfaction as students are engaged in learning practices.

Regarding students' writing scores, the findings agreed with previous studies that flipped classroom model had a significant effect on writing proficiency (Wallace, Walker, Braseby, & Sweet, 2020). In a study on the factors of demotivation and the effect of flipped writing class on EFL learners writing skill, the results demonstrated improvement in learners writing performance as they held positive perceptions about this model of instruction. As Herreid and Schiller (2019) pointed out, flipped classroom enhances academic achievements and allows for more variety in learning through imaginative and inventive instruction. These findings confirm the effectiveness of flipped model on learners' written production.

The tasks assigned for homework gave the students the ability to review the subject to have a clear understanding of the content. In addition, students could work on higher thinking skills as they took notes regarding the topic. Therefore, their lower thinking skills were supported by revision in class. Learners' autonomy in learning a language, the core element in the flipped learning model, was promoted as instructors implemented activities such as pair and group work, critical thinking, and discussions.

The qualitative part of the research focused on semi-structured interviews, which revealed positive perceptions regarding the flipped writing experience. Some students mentioned that the fact that students could prepare the lesson prior to class by viewing the recorded lectures lead to more excitement, engagement, and satisfaction. Therefore, this teaching model promotes active learning due to more opportunities for interaction

and collaboration in class. One of the main points about flipped classes is having a better understanding of the course content as students are able to watch the videos in a timely manner.

The structure of a flipped class should also be taken into account as it affects learners' engagement in the learning process. As Salter and Conneely (2015) pointed out, a flexible structure increases not only learners' engagement but also their critical thinking as students are actively involved in learning. Students also mentioned that a class should be structured in a way that leads them towards problem solving and retrieving the content they have learned earlier, as well as exploring the content to a greater extent and creating a richer learning environment. This context can effectively enhance learners' academic performance as they are willing to actively participate in activities and practice their thinking skills. However, conventional teaching approaches cannot improve learner performance effectively since, in a teacher-center environment, the teacher is the main authority.

On the other hand, some students referred to flipped classes as being 'disorganized' and did not see the value of participating in activities. In order to overcome such problems, language instructors should be trained in how to design and apply a well-structured syllabus to increase students' satisfaction and engagement.

## **CONCLUSION**

Innovative technologies and pedagogies are continually being used by educators in the twenty-first century. One of the most promising techniques to altering educational experiences is flip instruction (Millard, 2012). The new method of teaching in a flipped class requires instructors to shift towards an active collaboration in the process of teaching (Du et al., 2020). The results of the current study show positive effect of the flipped model on students' higher order thinking, engagement, satisfaction, and IELTS writing proficiency. Students' engagement in learning proves their satisfaction with being the center of the learning process and the implementation of technology in class.

In light of what the study has revealed, several pedagogical implications arise. Teachers should be encouraged to incorporate technology integrated teaching and flipped instructional model in their teaching as the 21<sup>st</sup> century requires preparation in terms of fast-paced technological advancements to promote more autonomous learners. A rich environment should be provided for learners through certain interactive activities to practice their higher-order thinking skills.

To overcome the challenges of flipped classes, more research should be carried out focusing on other language skills and subs-skills. Also, other features such as learning styles, context, and strategies need to be examined in order to come up with a comprehensive understanding of the effect of flipped learning model.

## REFERENCES

- ALRowais, A. (2020). The impact of flipped learning on achievement and attitudes in higher education. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)*, Special Issue, 14(1), 1914-1921.
- Alsowat, H. (2016). An EFL flipped classroom teaching model: Effects on English language higher order thinking skills, students' engagement, and satisfaction. *Journal of education and practices*, 7(9), 108 – 121.
- Basal, A. (2015). The Implementation of a Flipped Classroom in Foreign Language Teaching. *Turkish Education Online Journal of Distance -TOJDE*, 16(4), 28-37. <http://dx.doi.org/10.17718/tojde.72185>
- Beetham, H. & Sharpe, R. (Eds.), (2007). *Rethinking Pedagogy for a Digital Age: Designing learning for the 21st century*, 1st edition. Abingdon: Routledge.
- Bormann, J. (2020). *Affordances of Flipped Learning and its Effects on Student Engagement and Achievement*. Master thesis. The University of Northern Iowa.
- Brookhart, S. (2010). *How to Assess Higher-order Thinking Skills in Your Classroom*. Alexandria, VA: ASCD.
- Brooks, J. G. (2002). *In search of understanding: The case for constructivist classrooms*. Alexandria, Va.: Association for Supervisions and Curriculum Development.
- Burns, A. & Richards, J. (2012). *The Cambridge Guide to Pedagogy and Practice in Second Language Teaching*. Cambridge: Cambridge University Press.
- Coates, H. (2005). The value of student engagement for higher education quality assurance. *Quality in Higher Education*, 11(1), 25-36.
- Collins, A., Brown, J.S., and Holum, S. (1991). "Cognitive Apprenticeship: Teaching the Craft of Reading, Writing, and Mathematics! In L.B. Resnick (ed.) *Knowing, Learning, and Instruction: Essa in Honor of Robert Glaser* Hillsdale, NJ: Erlbaum, and in Brown, J.S., Collins, A., and Duguid, P. (1989). "Situated Cognition and the Culture of Learning." *Educational Researcher*, 18(1), 32-42.
- Du, S., Fu, Z. & Wang, Y. (2020). *The Flipped Classroom—Advantages and Challenges*. International Conference on Economic Management and Trade Cooperation, 17-20. doi:10.2991/emtc-14.2020.3.
- Farah, M. (2020). *The Impact of Using a Flipped Classroom Instruction on the Writing Performance of Twelfth Grade Female Emirati Students in the Applied Technology High School (ATHS)*. Master thesis. The British University, Dubai.
- Goodwin, B., & Miller, K. (2019). Teaching self-regulation has long-term benefits. *Educational Leadership*, 70(8), 80–81.
- Grazzados-Bezi, E. & College, E. (2015). Strategies to Transform the Foreign Language Classroom and Increase Learning Outcomes with the Flipped Model. In A. Scheg (Eds.), *Implementation and Critical Assessment of the Flipped Classroom Experience* (pp. 60-73). Hershey: Information Science Reference.
- Greenhow, C., Walker, J.D., & Kim, S. (2020). Millennial learners and net-savvy teens?: Examining internet use among low-income students. Manuscript submitted for publication.
- Gross, B., Marinari, M., Hoffman, M., DeSimone, K. & Burke, P. (2015). Flipped @ SBU: Student satisfaction and the college classroom. *Educational Research Quarterly*, 39(2), 36-52.
- Hamdan, N., McKnight, P., McKnight, K., & Arfstrom, K. (2019). A review of flipped learning. Retrieved from the Flipped Learning Network, 19/3/2020, [http://flippedlearning.org/cms/lib07/VA01923112/Centricity/Domain/41/LitReview\\_FlippedLearning.pdf](http://flippedlearning.org/cms/lib07/VA01923112/Centricity/Domain/41/LitReview_FlippedLearning.pdf)

- Herreid, C., & Schiller, N. (2019). Case Studies and the Flipped Classroom. *Journal of College Science Teaching*, 42, 62-66.
- Hung, H. (2015). Flipping the classroom for English language learners to foster active learning. *Computer Assisted Language Learning*, 28(1), 81-96.
- Kuh, G. (2020). The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, 141, 5-20.
- Millard, E. (2012). 5 reasons flipped classrooms work. *University Business*, 15(11), 26-29.
- Moran, C. (2020). Changing Paradigms: A Mixed Methods Study of Flipping the English Language Arts Classroom. Doctoral Dissertation, North Carolina State University.
- Obari, H., & Lambacher, S. (2015). Successful EFL teaching using mobile technologies in a flipped classroom. In F. Helm, L. Bradley, M. Guarda, & S. Thouèsny (Eds.), *Critical CALL – Proceedings of the 2015 EUROCALL Conference, Padova, Italy* (pp.433-438). Dublin: Research-publishing.net
- Pink, D. (2020). *Drive: The surprising truth about what motivates us*. New York: Riverhead Books.
- Prefume, Y. (2015). Exploring a Flipped Classroom Approach in a Japanese Language Classroom: a Mixed Methods Study. Doctoral Dissertation, Department of Curriculum and Instruction.
- Reinders, H. (2020). Personal learning environments for supporting out-of-class language learning. *ELT Forum* 52.4, 14–19.
- Ritchhart, R., & Perkins, D. N. (2008). Life in the mindful classroom: Nurturing the disposition of mindfulness. *Journal of Social Issues*, 56(1), 27–47
- Salter, N., P., & Conneely, M. R. (2015). Structured and unstructured discussion forums as tools for student engagement. *Computers in Human Behavior*, 46(1), 18-25.
- Schreiber, J., Amaury, N., Stage, F., Barlow, A., & King, J. (2006). Reporting Structural Equation Modeling and Confirmatory Factor Analysis Results: A Review. *The Journal of Educational Research*, 99(6), 33-56.
- Wallace, A., Walker, B., Braseby, E., & Sweet, D. (2020). Social Learning Platforms and the Flipped Classroom. *International Journal of Information and Education Technology*, 4(4), 293-296. <http://dx.doi.org/10.1109/ICeLeTE.2019.6644373>
- Zainuddin, Z., & Halili, S. H. (2016). Flipped Classroom Research and Trends from Different Fields of Study. *The International Review of Research in Open and Distributed Learning*, 17(3). <https://doi.org/10.19173/irrodl.v17i3.2274>