

The Effect of Flipped Professional Development on English Language Teachers' Engagement and Attitude

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Abstract

Flipped learning is a relatively new approach in teaching. In Flipped learning the place of teacher's lectures and the homework is reversed to enhance active learning and engagement. This study was done to examine the effect of flipped classroom on English language novice teachers' engagement and their attitude towards flipped classroom. To conduct this study 150 English female teachers were selected among different institutes and private schools of Iran, Tehran which were located in districts 1, 2, 3, 5. The teachers were divided randomly in experimental and control groups. The experimental group including 75 teachers had flipped classroom; they were placed in two classes, while the control group including 75 teachers had traditional lecture-based classroom; they were placed in two classes as well. They had a course of classroom management for 6 weeks. Afterwards, data was collected by a questionnaire which was completed by teachers to examine their engagements and their attitudes toward flipped professional development. Results of the questionnaire indicated that EFL teachers had higher engagement levels in flipped classroom than lecture-based classes; moreover, teachers had a positive attitude toward flipped professional development.

Keywords: flipped professional development, engagement, attitude, teacher education

INTRODUCTION

Educationalists have conducted extensive research to know how to improve the teaching and learning environment (Biggs & Tang, 2011). They have constantly been searching for the new types of instructional approach to enhance students' learning. One of the relatively new instructional model is "Flipped Learning" which has become popular in recent years. In this model, the instructional content is shifted out of class and practice with the content happens under the educator guidance in the class (Ojalvo & Doayne, 2011).

Likewise, teacher education program aims to prepare teachers to enhance proper skills, strategies and whatever intended in the teaching process. However, studies showed that ineffective instructional strategies that are applied in teacher preparation programs, do not fulfill the needs of the present changing world (Sykes, Bird, & Kennedy, 2010). Teachers' thinking or decision-making are not considered in teacher education programs; teachers are not informed of their own role in their development (Edge & Richards, 1993). Even Language teacher training which started its specific performance in 1960s

(Richards, 2008) indicated a traditional, top-down teaching approach. This kind of teacher education program is considered basically as something done to the teacher not as something done with them (Lingard, 2003). Therefore, teacher educators need to investigate so that they can find better instructional design to educate teachers. Studies show that the last two decades of the twentieth century has marked the beginning of a shift of orientation in teacher education, in the sense that the view toward teachers as passive knowledge consumers has been replaced by an alternative approach considering them as “active, thinking decision makers” (Borg, 2003, p. 81). Engagement and reflection on the practices in the process of learning is the important feature of teacher professional development (Crandall, 2000).

With regard to that teachers are inactive and passive during the learning process, this study investigated the effect of applying flipped classroom in teacher education program. In fact, this study investigated the effects of flipped learning on teachers’ engagement and their attitudes in flipped professional development.

Review of the Related Literature

Flipped classroom

By now, everyone in education has probably heard of “Flipped Learning” and there is an increasing use and interest in flipped education as a new educational paradigm (Bergmann & Sams, 2012). Flipped learning which is sometimes called reverse instruction (Halili & Zainuddin, 2015), inverted (Bates & Galloway, 2012), backwards (McLaughlin et al), blended learning and inverted classroom (Alvarez, 2012; Bergmann & Sams 2012) has become the new phenomenon (Blair, Maharaj, & Primus, 2016) in the last few years in education.

Flipped Classroom is basically changing the traditional concept of teaching and learning by shifting the concept of teachers from “sage on the stage” to “guide on the side, (King, 1993; Rosenberg, 2013). Flipped Classroom helps teachers to collaborate with individuals or groups of students during the class time. Class time is typically spent for direct instruction and doing related activities as homework should be done at home. In contrast, in flipped model, class time is used for working on problems whereas the teaching practice occurs at home (Anderson, 2012). In other words, homework which are known as tasks should be done in the classroom and the traditionally teacher lectures should be shifted home (Bergmann & Sams, 2012). As a matter of fact, Mazur’s peer instruction technique in 1996 (Mazur, 2009), Lage, Platte and Trgellia inverted classroom in 2000, Salman Khan’s non-profit website in 2006 and finally Bergmann and Sams’ studies in 2012 helped to the improvement and extension of flipped classroom.

To engage in flipped learning, educators must incorporate the four pillars of F-L-I-P™ model into their practice, i.e. flexible environment, learning culture, intentional content, and professional educator. The pillars free instructional time and lets more dynamic and interactive classroom learning (Hamdan, McKnight, McKnight, & Arfstrom, 2013).

Theoretical Foundations of Flipped Learning

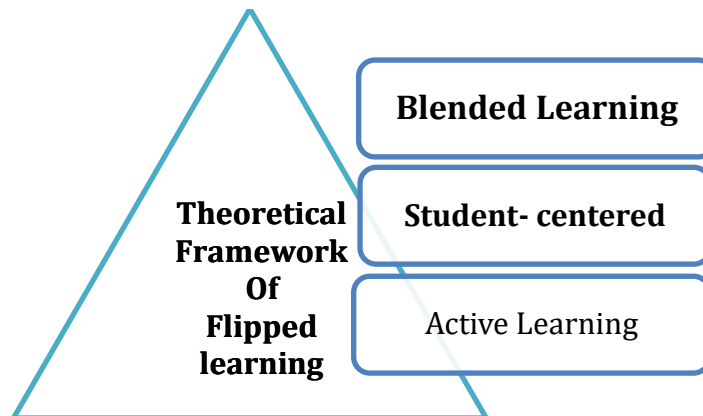


Figure 1. Theoretical framework of flipped leaning

Flipped Learning is formed by several theoretical foundations. The first foundation is blended learning proposed by Abeysekera & Dawson (2015) which transforms the classroom lectures into online presentations and applies face-to-face classroom practice, instead (Hill, 2014). Secondly, the Clark's student-centered approach that helps learners to be active in learning environment and helps to change the instructor-centered learning environment into learner-centered environment (Johnson & Renner, 2012) which is basically rested upon the constructivist theory of learning (Strayer, 2012). Constructivism refers "knowledge is actively constructed by the learner, not passively received from the outside. Learning is something done by the learner, not something that is imposed on the learner" (Sjøberg, 2007, p. 3). Finally, the last foundation is active learning (Lemmer, 2013) that emphasizes student engagement in the process of learning (Prince, 2004).

Types of Flipped classroom

Traditional flipped classroom in which students watch videos at home and do activities in the classroom and the teacher helps the students understand the subject.

Flipped Mastery is similar to traditional flipped classroom but the difference is that students work individually at their own pace, after they practice with peers and instructors, they take an assessment. If they get 80% or above on the assessment they can move to the next objective, otherwise they should relearn the material and try the assessment once more.

Peer Instruction Flipped Classroom was first started by a Harvard Physics teacher. During class time students answer some key conceptual questions individually, then they try to convince their peers of their answers. Those who answer correctly can convince their peers, then students practice /apply and are assessed.

Problem Based Learning Flipped Classroom in which students explore an issue and learn through the process of that exploration. Students learn from the things happen in the process of exploration, they may watch some videos to explore.

Inquiry Flipped Classroom is mostly used in a science room. Students may watch a video then they use class time to explore that concept and try to explain what is happening. Watching videos is useful for clearing up misunderstanding if they have.

Professional Development

Gender's (2000, as cited in Yadov, 2011) referred to professional development as formal and informal experiences. Formal experiences include experiences such as taking part in workshops, attending in professional meetings, and mentoring, while informal experiences include experiences such as reading professional publications, watching television documentaries of a special academic discipline.

Flipped Professional Development

Flipped professional development, flipped PD, is what Dronen & Daneils called the “ever-evolving model of professional development” (Bergmann, 2014, p.148). Similar to the flipped classroom, this model is based on the idea of moving low-level instruction from the group learning environment to the individual learning environment. In flipped professional development, flipped learning means that teachers access digital content on their own, consequently face-to-face time can be used for discussions and doing activities rather than the typical sit-and-get training workshops. Flipped learning can be applied to a variety of professional development scenarios. Some consider flipped PD delivering information to teachers prior to a group workshop or meeting, however, this is the starting point and the real impact of flipped learning happens when learning becomes personalized (Bergmann,2014).

Engagement: Definition, dimensions

Flipped Classroom Model emphasizes on students’ engagement and experience (Bergmann, Overmyer, & Wilie, 2011). Engagement, in education, refers to the degree of learners’ attention, curiosity, interest, optimism, and passion show during learning process which extends to the level of motivation. Fredricks, Blumenfeld & Paris (2004) regard engagement in three behavioral, cognitive and emotional interconnected dimensions.

Behavioral engagement encompasses students’ effort, persistence, attention, participation, and involvement e.g. including classroom or lab participation daily or weekly grades and doing homework and task persistence (Davis, Shalter-Bruening, & Andrzejewski, 2008).

Cognitive engagement is students’ effort to learn, understand, and master the intended knowledge and skills and the strategies which must be employed to master the work (Metallidou & Viachou, 2007).

Emotional engagement involves the sense of belonging and values (Sciarra & Seirup, 2008). It includes the relationships with teachers, peers and school as well. Flipped classroom approach creates a more learner-centered environment, increases student engagement, encourage critical thinking and helps to improve student attitudes (Moravec, Williams, Aguilar-Roca & O’Dowd, 2010;Tanner & Scott, 2015;Thompson & Ayers, 2015: Gilboy, Heinerichs, Pazzaglia, & Chester, 2015).

Flipped Classroom as an instructional model has been researched in the education literature, including higher education (Flaherty & Phillips, 2015), high school (Moran & Milsom, 2015), and has been researched in different fields of studies such as physics (Rundquist, 2012), physical education (Thompson & Ayers, 2015), psychology (Talley & Scherer, 2013) and economics (Kurihara, 2016). Studies have shown that flipped learning significantly enhances student engagement (Bergmann, Overmeyer & Willie, 2011; Milliard, 2012; Sadaghiani, 2012; Steed, 2012; Talley & Scherer, 2013; Clark, 2013; Jarvis, Halvorson, Sadeque, & Johnston 2014 ; Sweet 2014; emotional, cognitive and behavioral engagement (Elmaadaway, 2017), engagement with preparation and achievement (Jamaludin, & Osman, 2014) , student empowerment ,development and engagement (McLaughlin et al., 2014), students' attitude (Strayer, 2012), positive attitudes and perceptions of the flipped classroom (Basal, 2015; Kang, 2015). Moreover, flipped classroom increases freedom (Fulton, 2012), students learn to be responsible for their learning (Gilboy et al, 2015; Betihavas, Bridgman. Kornhaber & Cross, 2015). Comparing the researches on the implementation and efficacy of the flipped classroom approach, very little research has been done on the effectiveness of this model in teacher education. Vaughan's case study (2014) investigated the effect of flipped classroom approach on pre-service teachers' engagement level. The result indicated increased level of teachers' reflection and questions in the flipped group. Hardin & Koppenhaver (2016) investigated the effect of flipped classroom on teacher professional development and indicated that flipped professional development offered superior learning opportunities and teachers had a positive attitude to flipped professional development.

In this regard, the purpose of the present study was to investigate the impact of flipped learning on teachers' engagement. Also, this study aimed to explore teachers' attitude towards flipped professional development. Building on this basis, the main research questions of the present study were as follows:

- Research Question 1: Does flipped professional development have any statistically significant effect on EFL teachers' engagement?
- Research Question 2: Does flipped professional development have any statistically significant effect on EFL teachers' attitude?

METHOD

Design

This study adopted a quasi-experimental method design. A treatment was conducted in the form of flipped professional development in a way that classified materials (videos, text, and podcasts) in language teaching were provided for the course. The experiment was conducted over 6 weeks with English language teachers who had majored at English or non-English field of study, ageing from 22 to 30. A questionnaire, as an instrument was developed. The questionnaire was previously used by Karimi & Hamzavi (2017) and Elmaadaway (2017) to measure the teachers ' engagement and their attitude toward flipped classroom. The questionnaire was revised according to the study requirements. The questionnaire consisted of 2 sections. The first section was assumed to examine teachers' behavioral, cognitive and emotional engagements in professional development

course. Section two checked the teachers' attitude toward flipped classroom. The questionnaire consisted of 40 items; a five-point -Likert Scale for each item; Strongly Agree (1), Agree (2), Neutral (3), Disagree (4), and Strongly Disagree (5). The questionnaire validity was examined by three experts in the field of applied linguistics and educational technology and higher education. They reviewed and edited the items for relevance, accuracy and clarity. The reliability of the questioner was then evaluated by means of a pilot study. The Cronbach's alpha co-efficient of the overall scale item was 93.2.

Participants

The participants were 150 female EFL teachers, ageing from 22 to 29 years old. Among them 97 teacher majored at English course, either English literature, teaching or translation and 53 teachers graduated in non-English fields such as engineering, architecture or human science. They had 2 to 5 years of teaching experiences in English language teaching. These participants were selected based on purposive sampling, from available EFL teachers at several institutes and private schools such as Roshangar, Tazkieh and Tolo educational complexes. A management classroom course was designed and planned. Teachers were placed in 4 classes. Teachers were placed randomly in 2 experimental classes and 2 control classes. The experimental classless had flipped classroom while the control groups had traditional lecture-based classes.

Procedure

Flipped Professional Development

Once EFL novice teachers were selected randomly for the experimental and control classes, the participants were asked to enroll in "Farhangyada", a learning management system (LMS) so that they could see the materials prior to the face to face class time. The website was used to upload various kinds of materials such as videos, texts and audios. However, some of the teachers had difficulty using this website due to the lack of having personal computer, and they suggested the materials to be delivered by the social networks such as telegram. Therefore, a super group was made in telegram. Among them, 70 of teachers used telegram. As a software, "Grabber" was used to make the required videos. The software can record the computer screen and voice simultaneously. Some videos were made by the help of other educators; ready-made videos were used as well, other materials such as text and audio were also prepared by educators in advance. The materials were designed in a way that provide conceptual understanding for participants that they would apply in face - to - face sessions. The syllabus was planned for 6 weeks. Key topics for the classroom management course were cooperative atmosphere in the classroom, the factors of discipline in the classroom, development of the effective relation among teachers, students, parents and school, classroom rules and procedures.

Traditional Classroom

The control group had a traditional instruction with no treatment; the educator explained the topics to the teachers in front of the class by using PowerPoint. Teachers listened and

took notes. Some scenarios and activities were given to them after the lectures. The activities could not have completely been done in the class due to the lack of time.

Data collection

To measure teachers' perceptions of class engagement and their attitude on flipped classroom, teachers completed a questionnaire after 6 weeks of classes. In the last session, the participants in the experimental group were asked to complete a questionnaire with two parts concerning engagement and attitude toward the use of flipped learning; it was divided into four sections related to behavioral, cognitive and emotional engagement and attitude. Participants in the control group were asked to complete one questionnaire concerning engagement in the education program. For data analysis, descriptive and inferential statistics were conducted by Spss version 21. Then a non – parametric and parametric statistical technique was used to compare engagement levels, afterwards, attitude of the teachers who received flipped classroom was checked.

RESULTS

This study aimed to examine the effects of flipped professional development on behavioral, cognitive and emotional engagements of EFL teachers and their attitudes towards flipped instruction. To compare the engagement of participants in the flipped and traditional classes, both parametric and non-parametric statistics were used. A Mann-Whitney analysis was conducted to find whether there is a difference between the engagement practices of members of these two classes at the item level. The Mann-Whitney U is a non-parametric test which is used to assess for significant differences in a scale or ordinal dependent variable by a single dichotomous independent variable. It is the non-parametric equivalent of the independent samples t-test. This means that the test does not assume any properties regarding the distribution of the dependent variable in the analysis. The results of Table 1. indicated that the participants in flipped and traditional classes had a statistically significant difference with each other.

Table 1: Mann-Whitney U: Ranks

	Groups	N	Mean Rank	Sum of Ranks
engagements	Flipped	75	111.87	8390.50
	Traditional	75	39.13	2934.50
	Total		150	

Concerning the first research question of the research “Is there any significant difference between the engagement levels of the teachers in the experiment group taught by the flipped method and the teachers in the control groups taught on the basis of traditional method or lecture- based method? An examination of the findings appear in Table 1 and Table 2 indicates the results of Mann Whitney U test for the teacher engagement in the experimental and control groups.

Table 2. Test Statistics

	engagements
Mann-Whitney U	84.500
Wilcoxon W	2934.500
Z	-10.258
Asymp. Sig. (2-tailed)	.000

The results reported in the above table indicate that there is a statistically significant difference in mean engagement rating for flipped and traditional instructions ($Z=-10.25$, $p=00$). Inspection of the mean ranks for the two groups indicates that flipped classroom, the main treatment, reported higher scores (111.89) than traditional / lecture-based classroom (mean rank=39.11). So it can be concluded that the flipped instruction had positive effect on the teachers' engagement.

Classroom engagement in this study consisted of three main aspects, i.e., behavioral, cognitive, and emotional engagement. Therefore, to compare these three aspects of engagement in the flipped and traditional classes, a Univariate analysis was performed. The descriptive statistics of behavioral, cognitive, and emotional engagement in the flipped and traditional classes, as appeared in Table 3. indicated that participants in flipped classes were better than those of traditional classes. Regarding behavioral engagement, interaction as one of the items on the questionnaire was evaluated and the teachers were asked if they communicated more with the educator and their peers/colleagues during the flipped learning. Teachers' responses indicated they agreed that the flipped classroom enhanced their communication with the educator and their colleagues/peers. Teachers also agreed that they participated in the class discussions and attended the class actively. Regarding cognitive engagement, teachers' autonomous and active learning, they were asked if the flipped classroom encouraged them to take accountability and to explore their own strategies for self-learning, the teachers mostly agreed that flipped classroom had increased their autonomy. Regarding doing intended assignments and sharing their work with peers and applying them in real life, teachers agreed that the contents had real life application. Regarding emotional engagement, teachers were asked to explain if they would like to repeat the self-learning experience, and if they prefer flipped classroom learning. Teachers generally agreed regarding their willingness to experience self- learning strategies once more in the future.

Table 3. Descriptive Statistics of flipped and traditional total score

Aspects of Engagement	group	Mean	Std. Deviation	N
Behavioral. Engagement	Flipped	80.5333	12.18858	75
	Traditional	42.4000	3.24916	75
Cognitive. Engagement	Flipped	82.9630	12.56194	75
	Traditional	41.7778	3.18488	75
Emotional Engagement	Flipped	84.0667	12.85163	75
	Traditional	41.9000	3.96011	75

The results of Univariate analysis, as appeared in Table 4. show that there is no significant difference in the three aspects of engagement, i.e., behavioral, cognitive, and emotional engagement, of teachers in the classroom ($F(2, 444) = 1.03, p = 0.35$). However, there is a significant difference in the performances of flipped and traditional classes on the three aspects of engagement, i.e., behavioral, cognitive, and emotional engagement ($F(2, 44) = 2179.31, p < 0.000$). There is no significant difference in the interaction between the performances of participants in the two classes and the three aspects of engagement, i.e., behavioral, cognitive, and emotional engagement ($F(2, 44) = 1.96, p = 0.14$). The Eta squared in the difference of aspects of engagement and the interaction between the two groups of participants are very low. Therefore, the results cannot be generalized. However, the Eta square in the flipped and traditional comparison is very high indicating that the results can be safely generalizable. The results of Univariate analysis show that the first null hypotheses can be safely rejected using the total scores of the three aspects of engagement.

Table 4. Comparing aspects of Engagement in flipped and traditional classes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	184989.573 ^a	5	36997.91	437.06	.000	.831
Intercept	1745092.539	1	1745092.53	20614.94	.000	.979
Aspects of Engagement	174.634	2	87.31	1.031	.35	.005
Group	184483.128	1	184483.12	2179.31	.000	.831
Aspects of Engagement * group	331.811	2	165.90	1.960	.142	.009
Error	37585.416	444	84.65			
Total	1967667.528	450				
Corrected Total	222574.989	449				
R Squared = .831 (Adjusted R Squared = .829)						

The second question of the study surveyed the teachers' attitude of flipped professional development through a questionnaire. With regard to the first question of the study, 'Does flipped professional development have any statistically significant effect on EFL teachers' attitude?' In the present study, the independent variables were flipped and traditional classes and the dependent variables were engagement and attitude. Frequency analyses were conducted. This questionnaire was administered to the 150 teachers of the experimental groups and control groups and their responses were analyzed by the SPSS. Descriptive statistics determined frequencies of teachers' responses on the Likert scale; strongly agree (1), agree (2), neutral (3), disagree (4), and strongly disagree (5).

Table 5. EFL teachers' Attitude on the Flipped Instruction

	Mean	Std. Deviation	Chi Square	df	sig
30-The flipped class makes me want to learn more about the topic.	4.16	.945	61.467 ^a	4	0.000
31-The flipped classroom gives me greater opportunities to communicate with my peers.	4.27	.811	70.267 ^a	4	0.000
32-The flipped instruction allows me to prepare for my class in advance.	4.36	.710	48.040 ^b	3	0.000
33-I feel more confident about my learning due to the flipped instruction.	4.20	.854	32.787 ^b	3	0.000
34-I feel I am more in charge of my learning through the flipped instruction.	4.21	.793	38.547 ^b	3	0.000
35-I feel that the flipped instruction has not helped me at all.	1.57	.888	95.067 ^a	4	0.000
36-I understand more when the instructor guides in flipped class.	4.17	.978	56.933 ^a	4	0.000
37-The flipped classroom has not improved my learning.	1.68	1.080	88.667 ^a	4	0.000
38-Classroom time was used effectively in flipped classroom.	4.09	.961	58.933 ^a	4	0.000
39-If had the choice to choose I would continue learning English with the flipped model.	4.28	.924	71.467 ^a	4	0.000
40-I prefer learning by technology (videos, audios, texts reading) at home prior to class rather than direct instruction in class.	4.03	1.162	46.000 ^a	4	0.000

Table 5 shows the descriptive statistics of EFL students' attitude on the flipped instruction. As it shows, the means of the questionnaire's directional items ranged from 4.28 to 4.36 which indicates that most of the EFL teachers had a positive attitude towards flipped professional development and agreed that flipped instruction would be helpful. The findings in this regard also indicated positive attitude toward the flipped professional development.

DISCUSSION AND CONCLUSION

The present study was an attempt to demonstrate an innovative model to curriculum developers, educators and teachers, as well as researchers to overcome the important obstacles in teacher professional development. In this study, it was investigated if the flipped professional development would make any significant difference in the experimental and control group engagements and their attitudes toward flipped professional development. The results indicated significant higher perceived classroom engagement in flipped professional development. The participants reported a preference for the flipped approach over traditional/lecture-based teaching confirming other findings Hardin et.al, (2016). From the above presented data analysis, it can be found that novice English teachers involved in the present study preferred the innovative idea of flipped professional development because flipped classroom helped teachers become more engaged in learning process, as mentioned by Vaughan (2014). Teachers' questionnaire revealed an increase in their perceived engagement, which confirmed the

findings of McLaughlin et al. (2014) and Strayer (2009). EFL teachers believed sitting passively in a class and just listening to a lecture is boring. Instead, they preferred to be actively engaged in the learning process. In general, teachers stated positive remarks about flipped learning. In this study, it was also concluded that flipped classroom was more engaging than traditional classroom. Willey & Gardner (2013) and Zainuddin (2017) in their studies indicated that students mostly engaged in learning process and doing activities which was more than regular or traditional classes. In contrast to the passive role that the teachers usually have in teacher professional development classes, teachers in the flipped classroom were active learners. It appeared that the opportunity for participants to prepare course content at home and to participate in class activities with the educator allowed more engagement than a traditional classroom. Knowing the material prior to class offered the opportunity to review and mastery and helped the participants to generate relevant questions for the face – to face class and ask educators or their peers while participants in traditional class may have been preoccupied with note taking during lectures.

The second question of the study was an attempt to identify EFL learners' attitude toward flipped professional development. The results of frequency analyses indicated that EFL teachers had mostly positive attitude towards flipped learning which is in consistent with the findings obtained by Strayer (2012) that showed the positive attitude of the students towards using the flipped classroom based on participants' responses to the questionnaire. Similarly, Tanner and Scott (2015) expressed most comments received by students about the flipped classroom were mostly very positive. As a matter of fact, during the present experiment, several challenges affected the implementation of a flipped approach within the context of this electronic skill acquisition course, as a few teachers initially struggled with the new technology (Farhangyada), taking time to adapt to and accept it; some of them preferred social networks such as telegram which was available on cellphones and was easy to use.

Flipped professional development allows for such a paradigm shift to create a student-centered, individualized learning setting based on the constructivist theory of learning. The present study suggests that a flipped approach may make greater demands on an instructor/ educator than traditional teaching. For example, the instructor/educator in the study had to record and edit the videos and upload clips repeatedly. The educator along with other educators had to prepare a lesson plan for designing specific learning activities appropriate for each piece of content. The educator required more preparation time for the discussions and activities in the fact to face class time to give proper feedback; as most teachers answered in the questionnaire there would be sufficient time in flipped classroom, so it would be necessary for the educator to use class time more effectively. Furthermore, instructors/educators need various skills to set class activities. The educator must ensure active participation, communication and learning among all teachers in the class. The instructor must also ensure that all teachers interact with one another and with the instructor in flipped classroom, which would enhance their communication skills and increase their engagement. Flipped professional development would help teachers to take the control that had previously been held exclusively in the

hands of the educators and put it in the hands of the teachers, helping them develop communicative skills, and have more engagement.

The study had its own limitations too. First, since the instructor and the researcher of the course was identical, unintended bias might have influenced the outcomes. The present findings could not be generalized, due to its limitation to EFL novice female teachers. Future research should include a larger number of participants of both genders and non-English teachers from a wider range of contexts. Furthermore, it must be noted that the present data reflected only the participants' perceptions of their level of class engagement and their attitudes.

The present study adds to the literature about the flipped learning. Moreover, it confirms the findings of similar studies by the evidence received by researches about teachers' perceptions toward the flipped professional development as an innovative pedagogical approach in a teacher education course. The flipped classroom model in this study might be informative for the instructional designers in teacher professional development by proposing a framework based on the principles of constructivism instruction.

In conclusion, the flipped classroom might be applied to other teacher education program as a viable pedagogical model for changing the design of a classroom to enhance teachers' learning experiences and to develop the future teaching practices. However, there is still much work to be done and seen from this perspective, First, this study could be replicated to find out whether the same results would be obtained. Additionally, it certainly shades lights on the way for more thorough studies in future to investigate the effect of flipped professional development on other topics rather than classroom management.

This study is unique in terms of the context in which it was embedded. To date, no other studies were found that clearly depicting the flipping process of a teacher education course in the Iranian context. Therefore, a detailed description of the planning and implementation processes might be informative for the design of similar instructional models in this specific context. Based on the findings of the present study, some implications can be formulated. First and foremost, EFL educators and teachers can develop new, innovative and customized ways to improve the flipped classroom effectiveness in their teaching context and they can modify it based on their students' needs. A flipped classroom may lead to many advantages for teachers. It helps them to combine the traditional ways of teaching with the new approaches of teaching. More studies recommended to discover how the flipped professional development strategy can be employed for more effective teaching and learning.

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