The Effect of Flipped Classroom on Iranian ESP Students' Vocabulary Learning, Retention and Attitude

Zahra Rezai Fard, Ph.D. Candidate, Department of English, Shahreza Branch, Islamic Azad University, Shahreza, Iran *sara11302002@gmail.com* Mohsen Shahrokhi*, Assistant Professor, Department of English, Shahreza Branch, Islamic Azad University, Shahreza, Iran *Shahrokhi1651@yahoo.com* Mohammad Reza Talebinejad, Associate Professor, Department of English, Shahreza Branch, Islamic Azad University, Shahreza, Iran

Abstract

This study embarked on investigating the effectiveness of teaching ESP vocabulary via flipped classroom on improving Iranian students' vocabulary learning. In addition, the attitudes of ESP learners towards the use of flipped classroom were investigated. In this study, a quantitative procedure was followed to collect and analyze data . In so doing, 60 ESP participants studying English in Payame Noor University were selected non-randomly based on their performance on Oxford quick placement test. All the participants were divided into two equal groups consisting of 30 participants and a pretest was administered. The participants of the experimental group received instruction through flipped classroom. The control group received vocabulary instruction through the conventional method that was popular in the university. A posttest was given to the participants of both groups in order to check the students' vocabulary learning. To investigate the students' attitudes towards using flipped classroom, a 10-item questionnaire was distributed among the participants after the treatment phase of the study. The results of one-way MANOVA showed that implementing flipped classrooms has significant effects on Iranian students' vocabulary learning in ESP courses. Furthermore, the participants of the experimental group acknowledged that implementing flipped classrooms has positive effect on their attitude in ESP courses. The findings regarding the effectiveness of flipped classroom and its prospected implications in developing vocabulary learning can pave the way for better communication in an ESP context and community.

Keywords: Flipped classroom, vocabulary learning, learners' attitudes, ESP learners

Introduction

The flipped learning model is an incipient learning model which aims to increase students' active learning, collaboration and support during the learning process, through a better allocation of teaching time (Bergmann & Sams, 2012). The flipped learning approach has recently gained significant attention in teaching and also in research. The flipped learning is an instructional method that allows the instructor to make a video lecture, screen cast explaining the key concept of the topic to students and leaving the class time for more activity engagement under the teacher's guidance (Milman, 2012).

The flipped learning typically takes the form of web-based video lectures delivered at home, with class time devoted to problem solving, discussion, debates, case studies, and other activities. What is important to keep in mind is that the flipped learning "actually represents an expansion of the curriculum, rather than a mere re-arrangement of activities" (Bishop & Verlager,

2013). The concept 'flipped learning' has been widely investigated recently. The flipped learning is a method of teaching in which "what used to be classwork (the lecture) is done at home via teacher-created videos and what used to be homework (assigned problems) is now done in class" (Overmyer, 2014, p. 1). They record their lectures by using video recordings (Hamdan, McKnight, McKnight, & Arfstrom, 2013).

The flipped (or inverted) learning is a blended learning approach that reverses the traditional university teaching and learning model (O'Flaherty & Phillips, 2015). When learning is flipped, didactic lectures, which usually take place during face-to-face time, are pre-recorded and made available for students to watch prior to class, while opportunities to deepen, extend and apply student understanding of the recorded material are afforded by way of 'active learning strategies' in class time (Cheng & Weng, 2017; Roehl, Reddy, & Shannon, 2013; Zainuddin & Halili, 2016).

Another important distinction is that the flipped learning gives students their first exposure to new course content outside of class, followed by time spent in class assimilating the content into new knowledge (Brame, 2013). The flipped learning approach helps students to explore knowledge contents themselves by watching lecture videos at home and get a deeper understanding of the lessons during learning activities. As the lectures are recorded in the forms of videos, almost online as well, students are able to access lessons easily. They can also rewind, pause, or re-watch the videos if they want. Although there may be not direct explanations from the teacher, students take notes for their questions and bring the issues to the class. This approach, therefore, boosts students' engagement and performance (Millard, 2012; Stone, 2012; Walsh, 2013; Clark, 2015).

In the flipped learning, the whole learning structure is flipped and that is why it is called the flipped learning (Overmyer, 2014). That is, the homework is done at the learning and the lecture is delivered to students before class time (Baranovic, 2013). The main goal of flipping the learning is to increase the face-to-face time between teachers and students (Gross, 2014) and devote class time spent for discussing topics, answering questions and practicing exercises (Mehring, 2015).

Review of the Literature

The majority of the previous research into Flipped Learning has been conducted with-in the context of higher education (see, for example, Bishop & Verleger, 2013). Besides, Uzunboylu and Karagözlü (2017) review and analyzed the content of Published Articles about flipped learning approach between 2010 and 2015. The flipped learning is a learning model where direct instruction is replaced by videos and in the actual classrooms; students are encouraged to focus on important learning activities with their teachers instead. A total of 65 articles were analyzed as part of this study and the reporting of their study and grouped according to the following criteria: year of publication, research country, sample group, research method, subject area, research model and data collection tool. They were found that the number of publications on flipped learning has increased year over year.

Educational technology such as overhead projectors, filmstrips, movies, radio, and television broadcasts has been in use in education for a long time (Caladine, 2008). Its use in language teaching and learning is not a new phenomenon. Some relevant terminologies have aptly described how technology is incorporated in the language teaching and learning classrooms, for example, CALL (Computer Assisted Language Learning) and TELL (Technology Enhanced Language Learning).

It is worth mentioning that in many learning environments, the use of technology is not meant to replace human resources (Shank, 2008; Wilson, 2008). Rather, it is intended to complement and enhance regular classroom work and the lecturers' effectiveness will be extended through the use of these technologies. The students can use technology to reinforce the content they have learned in the classroom. In this way, the students can also have ample opportunities to expand their existing knowledge by dealing with complementary activities which are completed and submitted online. The exposure to authentic materials found in the Internet can assist the students to solve real world problems (Nelson, 2008). For that reason, the use of technology is becoming increasingly important and it will become a normal part of English Language Teaching (ELT) practice in the coming years.

Reviewing the related literature on information communication technology (Kramsch, Lam, and A'Ness, 2000; Lam, 2006) shows that the process of acquiring, producing, and distributing knowledge through technology has altered the way that languages are learned. There have been arguments over the use of computers and the internet in L2 context. However, Padurean and Margan (2009) and Kisby (2011) mentioned some advantages and positive effects of new technology inside the L2 classroom that is highly based on the way that the EFL teachers employ them and motivate the EFL learners as follows:

•possibility to have access to recent and updated authentic materials and news on the web based on different topics

• capacity to control the presentation with different skills and modality (e.g., combine visual with listening materials or text with graphics and pictures)

•possibility to have novelty and creativity which makes the lectures more interesting with different materials and motivating the EFL learners to participate in the class discussion

• capacity to give fast feedback to students' responses through error correction and sometimes give appropriate advice

•enabling the EFL teachers to focus on specific aspect of language (e.g., grammar, pronunciation, vocabulary, etc.)

• enabling the teachers to adapt the materials to suit their students' needs and levels

Primarily, technology and internet offers EFL learners the opportunity to use the language that they are learning in meaningful ways in authentic situations. Another benefit of using internet and computer technology is based on the opportunities it affords for cooperation and collaboration with one's peers. Additionally, the new technology offers EFL teachers an opportunity to give their learners individual and personalized guidance more effectively with constantly growing number of available educational resources.

Young generations who are born in the era of internet and technology are living a life inside school that is not reflective of their life outside of school (Lenhart, Purcell, Smith, & Zickuhr, 2010). This new life and the activities related to it is primarily taking place in more informal learning and social contexts outside of school (Merchant, 2009; Selwyn, 2009; Spires, Lee, Turner, & Johnson, 2008).

As flipped models have turned out to be progressively common in the instructional literature and extensively executed by various researchers in recent years (Moranski & Kim, 2016), the need to explore the impacts of flipped models on language learning is fundamentally significant (Hashemifardnia, Namaziandost, & Shafiei, 2018). The flipped classroom approach is an educational technique that inverts the process of conventional classroom by conveying the educational substances normally online involving the students in cooperative group learning or potentially basic critical thinking exercises that is completed under the educator's direction amid class (Herreid & Schiller, 2013). As this study intends to investigate the impact of flipped

classroom on ESP learning and the language learners' critical thinking, their attitude as well as their task engagement, in the following section a brief introduction is presented about each variable.

The empirical studies on the effects of the flipped approach existed, especially in the field of second language learning. However, the number of experimental studies about the flipped learning is limited. At the same time, universities are under pressure to innovate their learning and teaching, while supporting an increasingly diverse student cohort's transition into higher education (Crosling, Heagney, & Thomas, 2009). In recent years, "flipped learning" has been a feasible solution that offers a new pedagogical tendency in the field of ESP. Regarding this trend of pedagogy, this thesis aims to investigate the effect of the flipped model on English language learners' 4C skills at university level.

ESP is not a particular kind of language or methodology, nor does it consist of a particular type of teaching material. It is an approach to language learning, which is based on learner's needs. The present study intends to examine the degree to which this approach is successful in promoting vocabulary in students through flipped classroom method for teaching vocabulary in ESP classes in Iran.

The current study was also significant because an important outcome was the development of a 'flipped learning continuum', which offers a way of adapting the usual flipped learning model in a way that is responsive to students' learning needs and their 'readiness' for a flipped approach. The present study investigated the effects of teaching ESP vocabulary to Iranian ESP learners via flipped classroom techniques. Therefore, the following research question was posed in order to address the objective of the study:

RQ1. Does using flipped classroom have any significant effects on Iranian students' vocabulary learning in ESP courses?

RQ. What is the attitude of Iranian ESP learners ' towards using flipped classroom in ESP courses?

Method

Participants

The participants of this study were 60 female Payam-e Noor university students, from different departments and different fields of study who were passing their ESP courses. To make sure about the actual level of participants of the study, they sat for a PET (Preliminary English Test). Since the learners of English language in Iran are mainly young people, it was attempted to choose those language learners who were within the age range of 18 to 35. The selected participants were randomly assigned to two groups of control and experimental. The experimental group received instructions through the tenets of flipped classroom; however, the control group received the instruction through traditional approaches to teaching ESP, that is, teaching through translation.

Instruments

Different instruments including language proficiency test, pretest and posttest were provided to pursue the purpose of the study in conducting the experiment. An attitude questionnaire was used in order to detect the participants' attitudes towards the use of flipped classroom in this study. The PET sample tests were used to homogenize the participants with regard to their language proficiency. The version of test used in this study refers to 2004. PET consisted of four main parts of reading, listening, writing and speaking. All parts of the test were used in this study.

A 35-item vocabulary test was given to the learners before and after the treatments of study as pre-test and post-test. This test was syllabus-based and was used to measure the learners' vocabulary knowledge. The post-tests were the versions of the modified pre-test to remove the reminding of the items in previous test administration that were administered twice, immediate posttest, immediately after implementing the tasks to test learners' vocabulary gain, and the other, delayed post-test, administered one week later, to test the learners' vocabulary retention. In order to test the reliability of the tests, Cronbach's alpha analysis was performed, the results (r = 0.82) indicated that the test was reliable. The content validity of the test was checked and confirmed by three language teaching and testing experts consisting of one Ph.D. holder of teaching English language field and two English language teachers.

In order to investigate language learners' attitude toward using the tenets of flipped classroom in ESP courses, a 10-item questionnaire developed by Farrah and Qawasmeh (2018) was employed. The questionnaire includes two sections. The first section of the questionnaire is about the demographic data of the respondents including their gender, year of study, etc. The second section contains items about attitudes towards using flipped classroom techniques in ESP classes. The questionnaire is a Likert scale to indicate the degree of disagreement and agreement from 1-5 ranging from strongly disagree to strongly agree with choices of strongly disagree, disagree, neutral, agree and strongly agree. The reliability of the questionnaire was examined and the result showed that the overall Cronbach Alpha Coefficient of the questionnaire was calculated by the developers to be (r = .73), indicating a good degree of internal consistency. The researchers examined the validity of the questionnaire against the extent to which its items reflected students' attitudes towards the flipped classroom. The questionnaire was given to a board of experts to check its validity. In addition to the questionnaire, interviews were administered to reveal the general attitudes of the students towards the benefits, difficulties and the solutions of the flipped classroom.

Procedures

This study was conducted among the Payam-e Nour University students at different departments in Iran. Prior to starting the study, the researcher got permission to conduct the study at the Payam-e Nour University as she had been teaching there for 2 years. Then, PET test was used in order to homogenize the participants of the study. At the first step, from among the language learners, 60 were selected according to their performance in PET. As the next step, the participants were divided into two groups, namely, control and experimental groups. Each group had 30 participants. Then, a test of ESP vocabulary was administered to ensure that the participants are not familiar with the target words.

At the experimental phase, the participants in the experimental group received instruction on the target words through the techniques of flipped classroom. The same words were presented to the participants in the control group through conventional techniques using translation and wordlist technique. The flipped-classroom approach was applied in the following ways: before each class meeting, the students were asked to watch a video clip on their mobile phones with a topic related to their courses that were discussed in class. During the face-to-face meetings, students were given the opportunity to link their online video viewing with course materials presented in class by discussing issues related to subjects presented by the lecturer and/or classmates. For this purpose, ten videos were developed by a specialized group of EFL/ESP teachers who were the researcher's colleagues, each video lecture was accompanied by an avatar of the course lecturer, using his/her real voice, and audiovisual representations of contents. Each video was ten minutes long at most. These video lectures were considered as a picture-in-picture learning video type that displays an instructor's image, instructor's voice, lecture slides and multiple multimedia elements.

The control group participants were taught all the vocabulary items and their meanings in the first language as they appear in the different units and in the wordlist to implement the traditional instruction. The same words were presented to the participants in the control group through conventional techniques using translation and wordlist technique. Students were also asked to study those items outside the class. In addition, they were encouraged to use English-Persian dictionaries but without any kind of training. They were allowed asking and consulting the researcher about the meaning of any item anytime they wish.

Finally, the groups received the immediate and delayed posttest in order to check and compare their vocabulary gain. In addition, to investigate the students' attitudes towards using flipped classroom, a 10-item questionnaire was distributed among the participants after the treatment phase of the study.

Results

All participants (n = 60) took pretest that was designed to test the participants' vocabulary knowledge before receiving the treatments of study. The descriptive statistics of participants' performance on pretest is provided in Table 1.

Table 1

Descriptive statistics of participants' scores on pretest

 N
 Minimum
 Maximum

	Ν	Minimum	Maximum	Mean	Std. Deviation
Pretest (Control Group)	30	4	14	10.57	2.542
Pretest (Experimental Group)	30	3	15	10.70	2.891

In order to ensure that there is no significant difference between the groups regarding their knowledge of vocabulary, an independent samples t-test was performed. The results are provided in Table 2.

Table 2

Independent samples t-test between the groups' performance on pretest

Indepen	Independent Samples Test									
		Lever	ne's	t-test f	t-test for Equality of Means					
		Test	for							
		Equa	lity							
		of	•							
		Varia	nces							
		F	Sig.	Т	df	Sig.	Mean	Std. Error	95%	
						(2-	Difference	Difference	Confide	ence
						tailed)			Interval	of the
									Differen	nce
									Lower	Upper
Pretest	Equal	.758	.388	1.170	58	.547	.349	.48443	4030	1.5363

variances	
assumed	

The results indicated that there was no statistical significant difference between the experimental and control groups (t = 1.17, p > 0.05) in their performance on vocabulary pretest.

Experimental group received flipped instruction whereas control group received vocabulary instruction through the conventional methods. In order to find the effects of treatment on the learners, each group was given two vocabulary achievement posttests; one immediately after the treatment called immediate posttest and the other, one week later, called delayed posttest. The descriptive statistics of the groups on immediate posttest are shown in Table 3.

Table 3

Descriptive statistics of participants' performance on immediate posttest

1			1 7	1		
		Ν	Minimum	Maximum	Mean	Std.
						Deviation
Immediate	Posttest	30	14.00	33.00	28.3500	4.94469
(Experimental	l Group)					
Immediate	Posttest	30	10.00	24.00	16.9000	3.97227
(Control Grou	ıp)					

The mean of experimental group on immediate posttest was 28.35 and the mean of control group on immediate posttest was 16.90. Generally, the performance of the control group learners on the immediate posttest was weaker than experimental group.

One week after the immediate posttest, the same version of the posttest called delayed posttest was administered unexpectedly in order to measure their vocabulary retention. The descriptive statistics of the groups on delayed posttest are shown in Table 4.

Table 4

Descriptive statistics of participants' performance on delayed posttest

			Ν	Minimum	Maximum	Mean	Std. Deviation
Delayed	Posttest	(Experimental	30	11.00	32.00	25.7000	5.72253
Group)							
Delayed F	Posttest (Co	ntrol Group)	30	9.00	19.00	14.5500	3.70597

In order to verify the first research question of the study, a one-way MANOVA was performed between the scores of control and experimental groups on pretest, immediate and delayed posttests. The results are provided in Table 5.

Table 5

One-way MANOVA on pretest, immediate and delayed posttests of control and experimental groups

ts ^a					
	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	.915	199.775 ^b	2.000	37.000	.000
Wilks' Lambda	.085	199.775 ^b	2.000	37.000	.000
Hotelling's Trace	10.799	199.775 ^b	2.000	37.000	.000
	Pillai's Trace Wilks' Lambda Hotelling's Trace	ValueVillai's Trace.915Wilks' Lambda.085Hotelling's Trace10.799	Value F Pillai's Trace .915 199.775 ^b Wilks' Lambda .085 199.775 ^b Hotelling's Trace 10.799 199.775 ^b	Value F Hypothesis df Pillai's Trace .915 199.775 ^b 2.000 Wilks' Lambda .085 199.775 ^b 2.000 Hotelling's Trace 10.799 199.775 ^b 2.000	Value F Hypothesis df Error df Pillai's Trace .915 199.775 ^b 2.000 37.000 Wilks' Lambda .085 199.775 ^b 2.000 37.000 Hotelling's Trace 10.799 199.775 ^b 2.000 37.000

	Roy's Largest Root	10.799	199.775 ^b	2.000	37.000	.000		
immediate	Pillai's Trace	.003	2.64 ^b	2.000	37.000	.008		
delayed	Wilks' Lambda	.997	2.64 ^b	2.000	37.000	.008		
	Hotelling's Trace	.003	2.64 ^b	2.000	37.000	.008		
	Roy's Largest Root	.003	2.64 ^b	2.000	37.000	.008		
a. Design: Intercept + immediate delayed								
b. Exact statistic								

Using Wilks' Lambda test, it was found that there are significant differences among ESP learners of experimental and control groups (Wilk's = .99, F = 2.64, p < .05), in developing their vocabulary learning. Since MANOVA was significant, the univariate ANOVAs were used and the results can be seen in Table 6.

Table 6										
Univariate AN	Univariate ANOVAs									
Tests of Betw	een-Subjects Effects									
Source	Dependent Variable	Type III Sum of	df	Mean	F	Sig.				
		Squares		Square						
Corrected	Experimental Group	2.500^{a}	1	2.500	.073	.000				
Model	Control Group	1.600 ^b	1	1.600	.065	.000				
Intercept	Experimental Group	4796.100	1	4796.100	139.400	.000				
	Control Group	6300.100	1	6300.100	255.691	.000				
immediate	Experimental Group	2.500	1	2.500	.073	.000				
delayed	Control Group	1.600	1	1.600	.065	.000				
Error	Experimental Group	1307.400	58	34.405						
	Control Group	936.300	58	24.639						
Total	Experimental Group	6106.000	60							
	Control Group	7238.000	60							
Corrected	Experimental Group	1309.900	59							
Total	Control Group	937.900	59							
a. R Squared =	a. R Squared = .002 (Adjusted R Squared =024)									
b. R Squared =	= $.002$ (Adjusted R Squared =	025)								

As can be seen in the above table, all ANOVAs among different incidents of the three tests (pretest, immediate and delayed posttests) are significant at the level of .05. It means that there is a significant interaction among experimental and control group in ESP learners' vocabulary learning. Therefore, implementing flipped classrooms has significant effects on Iranian students' vocabulary learning in ESP courses and the first research question of the study was verified.

In order to verify the second research question in finding whether implementing flipped classrooms has any effect on Iranian students' attitude in ESP courses, the attitude questionnaire was given to the participants of the experimental group. In this section, results of descriptive statistics including distribution of frequency, mean, standard deviation and percentage of the students' answers to the questionnaire items are presented. Table 7 presents the frequency of students' responses to the questionnaire items.

No.	Statements	Strongly	Disagree	Neutral	Agree	Strongly
		disagree				agree
1.	The flipped classroom supports students	1	2	2	10	15
	in becoming self-directed learners.					
2.	The flipped classroom allows students	3	2	3	10	12
	to have access to the lectures at any					
	time easily.					
3.	The flipped classroom helps students to		1	2	13	14
	ask questions and get immediate					
	targeted answers to difficult concepts.					
4.	The flipped classroom gives students		1	1	11	17
	more opportunities to communicate					
	with each other.					
5.	Teachers are available for more one-on-	2	1	3	10	14
	one interaction with students in a					
	flipped classroom.	1.0		-		
6.	Students would not recommend the	10	12	2	1	5
	flipped classroom to their friends.				10	1.0
7.	The flipped classroom reduces the	I		1	12	16
	amount of frustrating sessions.	1		2		17
8.	The flipped classroom allows students	1	2	3	1	17
	have more time for family, friends,					
	play, and extra-curricular activities.	0	11	2	4	2
9.	Students would rather watch a	9	11	3	4	3
	traditional teacher lead lesson than a					
10	The flipped elegeneers has not improved	10	10	1	2	2
10.	the hipped classroom has not improved	12	12	1	3	Z
	students learning of English.					

Table 7

Frequency of the male and female students' responses to the questionnaire

As illustrated in table, 25 ESP students (strongly) agreed that flipped classroom supports students in becoming self-directed learners. Twenty-two students agreed that using the flipped classroom allows students to have access to the lectures at any time easily. On the other hand, 27 students were in agreement with the statement that the flipped classroom helps students to ask questions and get immediate targeted answers to difficult concepts. In addition, 28 students acknowledged that the flipped classroom gives students more opportunities to communicate with each other. Twenty-four students confirmed that teachers are available for more one-on-one interaction with students in a flipped classroom. However, 22 students disagreed that they would not recommend the flipped classroom to their friends.

Twenty-eight students agreed that the flipped classroom reduces the amount of frustrating sessions. Twenty-four students approved that the flipped classroom allows students have more time for family, friends, play, and extra-curricular activities. Twenty students disagreed that they would rather watch a traditional teacher lead lesson than a lesson video. Finally, 24 students disagreed that the flipped classroom has not improved students' learning of English. Table 8 presents means and standard deviations of the participants' responses to each item.

Table 8

Mean and Standard deviations of the participants' responses to different items of the questionnaire

No.	Statements	Mean	Std.
			Deviation
1.	The flipped classroom supports students in becoming self-directed	4.12	.876
	learners.		
2.	The flipped classroom allows students to have access to the	3.47	.598
	lectures at any time easily.		
3.	The flipped classroom helps students to ask questions and get	4.67	.873
	immediate targeted answers to difficult concepts.		
4.	The flipped classroom gives students more opportunities to	4.72	.800
	communicate with each other.		
5.	Teachers are available for more one-on-one interaction with	4.25	.588
	students in a flipped classroom.		
6.	Students would not recommend the flipped classroom to their	1.65	.723
	friends.		
7.	The flipped classroom reduces the amount of frustrating sessions.	4.62	.946
8.	The flipped classroom allows students have more time for family,	4.52	.876
	friends, play, and extra-curricular activities.		
9.	Students would rather watch a traditional teacher lead lesson than	1.87	.598
	a lesson video.		
10.	The flipped classroom has not improved students' learning of	1.75	.474
	English.		

The results showed that the most of the ESP students confirmed that flipped classroom helped them facilitate their learning. Therefore, the participants of the experimental group acknowledged that implementing flipped classrooms has positive effect on Iranian students' attitude in ESP courses and the second research question of the study was verified.

Discussion

This study was conducted focusing on the use of flipped classroom with regard to its effectiveness in the improvement of Iranian EFL learners' vocabulary learning. The general results, confirming the previous research indicated that flipped classroom was beneficial to EFL learners' vocabulary learning. The findings of this study suggested that using flipped classroom provided better opportunities for learners to learn vocabulary. The better performance of the learners who used flipped classroom may refer to the fact that they had more interactions. Interaction as well as technology contributed EFL learners' improvement in vocabulary learning (Asadi, Khodabandeh & Yekta, 2019).

Addressing the first research question of the study, the results of statistical analyses showed that implementing flipped classrooms has significant effects on Iranian students' vocabulary learning in ESP courses. The findings of this study are in agreement with those of Yousefzadeh and Salimi (2015) who investigate whether the flipped (revised) learning had effect on student learning outcome and demonstrated that there were significant differences between flipped and ordinary classes in students' learning outcomes. In addition, the findings of this study are in line with those of Soliman (2016) who examined the Flipped learning pedagogy applied in

English for Academic Purposes (EAP) teaching and proved the efficiency of Flipped learning method in EAP class and calls for further research on this branch of linguistic field. The present study support those of Love et al. (2014) who applied a flipped learning model for a section of an applied linear algebra course and a traditional lecture format and found that students in the flipped learning had more understanding of subject than students who were in the traditional lecture section. In addition, the results from the end of semester survey showed that flipped learning students were quite positive regarding the course.

Regarding the fourth research question, the results of descriptive statistics showed that the most of the ESP students confirmed that flipped classroom helped them facilitate their learning. Therefore, the participants of the experimental group acknowledged that implementing flipped classrooms has positive effect on their attitude in ESP courses. This finding could provide a support for Roach (2014) who implemented a partly-flipped class during a semester for microeconomics course and analyzed students' perceptions toward the flipped learning method. He found that students had a positive impression of the flipped learning. Furthermore, this finding confirmed the results of a study developed by Hsu and Chang (2010) who developed a flipped-based listening through multimedia, and showed that it was effective in more listening comprehension.

This study support Nguyen (2018) who investigated student's perceptions and teacher's inspection toward the implementation of flipped learning approach and showed a significant improvement of students' language competence through an open-ended survey and a semi-structured interview. The findings are also able to support those of Farrah and Qawasmeh (2018) who studied students' attitudes toward using flipped learning approach and found that the participants considered the flipped learning exciting, motivating, and engagement.

The findings confirmed those of Ceylaner and Karakuş (2018) who showed that flipped learning method had positive contributions to students' self-directed learning readiness and attitudes towards the English course. Furthermore, Oraif (2018) showed that there was positive correlation between motivation and learning outcomes of flipped approach, and between learning outcomes and the supporting environment for the satisfaction of the psychological needs. In addition, from the qualitative data gathered, different types of support were found to be helpful for satisfying these psychological needs using the flipped approach. The findings of this study acknowledge those of Vaezi, Afghari, Lotfi (2019) who indicated that improvement in the listening performance directly attributable to the flipped approach.

Conclusion

One conclusion that can be drawn from this study is that the flipped classroom activities and exercises demonstrated the teachers' desire to engage learners, as they unanimously agreed upon learners' engagement could compensate the textbook's shortcomings. It can be inferred from this study that in contrast to individual and controlled activities in the classroom, teachers are more likely to use tasks which appeal to their students' interest, develop group and pair-work and help to finalize the learning process. This integrative pedagogy allows language learners to practice and engage language forms within realistic communicative settings of task-based instruction.

To sum up, on the basis of the findings of this study, as well as the existing research on the topic, there is a strong indication that language learning can be best acquired in engaging learners in activities embedded in the instruction. The results of the present study suggest that the striking potential role of learners' engagement to positively enhance different aspects of language learning should not be underestimated in the current activities of the EFL classrooms. The findings of this study can be beneficial to L2 pedagogy. The results of the present study help L2 teachers make use of the flipped classroom for providing authentic communicative situations for L2 learners. Moreover, the L2 teachers are able to detect the L2 learners' areas of weakness and strength and act accordingly. The L2 teachers should assist their students. Particularly, this study may pave the way for the L2 teachers to guide their students to raise their consciousness and awareness of their own learning and towards the actual goals of language learning and help them proceed towards meaningful learning. Probable findings regarding the effectiveness of flipped classroom and its prospected implication in developing vocabulary learning can pave the way for better communication in an L2 culture and society. The L2 learners knowing how to communicate with other L2 learners on flipped classroom can try to do their best to improve their communicative competence.

References

- Asadi, N., Khodabandeh, F., & Yekta, R. R. (2019). Comparing and Contrasting the Interactional Performance of Teachers and Students in Traditional and Virtual Classrooms of Advanced Writing Course in Distance Education University. *Turkish Online Journal of Distance Education*, 20(4), 135-148.
- Azevedo, Roger & Harley, Jason & Trevors, Gregory & Duffy, Melissa & Feyzi Behnagh, Reza & Bouchet, François & Landis, Ron. (2013). Using Trace Data to Examine the Complex Roles of Cognitive, Metacognitive, and Emotional Self-Regulatory Processes During Learning with Multi-agent Systems. 10.1007/978-1-4419-5546-3_28.
- Baranovic, K. (2013). Flipping the first-year composition classroom: Slouching toward the pedagogically hip (Doctoral dissertation, Southeast Missouri State University).
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day.* Eugene, OR: ISTE.
- Bishop, J. L., & Verleger, M. A. (2013). *The flipped classroom: a survey of the research*. In 120th ASEE National Conference and Exposition, Atlanta, GA (Paper ID 6219). Washington, DC: American Society for Engineering Education.
- Brame, C., (2013). Flipping the classroom. Vanderbilt University Center for Teaching. Retrieved May 19, 2019 from: URL: http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom/.
- Bryson, C., & Hand, L. (2007). The role of engagement in inspiring teaching and learning. *Innovations in education and teaching international*, 44(4), 349-362.
- Caladine, R. (2008). A Short History of Learning Technologies. In *Enhancing E-Learning with Media-Rich Content and Interactions* (pp. 15-28). IGI Global.
- Ceylaner, S. G., & Karakus, F. (2018). Effects of the Flipped Classroom Model on Students' Self-Directed Learning Readiness and Attitudes towards the English Course. *English Language Teaching*, 11(9), 129-143.
- Cheng, Y., & Weng, C. (2017). Factors influence the digital media teaching of primary school teachers in a flipped class: A Taiwan case study. *South African Journal of Education*, 37(1), 1–12. https://doi.org/10.15700/saje.v37n1a1293.
- Clark, K. (2015). The effects of the flipped model instruction on student engagement & performance in the secondary mathematics classroom. *Journal of Educators Online*, *12*(1), 91-115. https://doi.org/10.9743/JEO.2015.1.5
- Crosling, G., Heagney, M., & Thomas, L. (2009). Improving student retention in higher education: Improving teaching and learning. *The Australian Universities' Review*, 51(2), 9-15.

- Davies, R. S., Dean, D. L., & Ball, N. (2013). Flipping the classroom and instructional technology integration in a college-level information systems spreadsheet course. *Educational Technology Research & Development*, 61(4), 563-580. doi.org/10.1007/s11423-013-9305-6
- Farrah, M., & Qawasmeh, A. (2018). English Students' Attitudes towards Using Flipped Classrooms in Language Learning at Hebron University. *Research in English language* pedagogy, 6(2), 275-294.
- Freeman, S., Eddy, S.L., McDonough, M., Smith, M.K., Okoroafor, N., Jordt, H., Wenderoth, M.P. (2014). Active learning increased student performance in science, engineering, and mathematics. Proceedings of the National Academy of Sciences, 111, 8410-8415.
- Gross, A. (2014). The flipped classroom: Shakespeare in the English classroom. Unpublished Doctoral Dissertation. North Dakota State University: Fargo.
- Hamden, N., McKnight, P.E., McKnight, K., & Arfstrom, K. (2013). A review of flipped learning. Flipped Learning Network. Upper Saddle River, NJ: Pearson Education, Retrievedfrom:<u>URL::http://www.flippedlearning.org/cms/lib07/VA01923112/Centricity/</u> <u>Domain/41/LitReview_FlippedLearning.pdf</u>
- Hashemifardnia, A., Namaziandost, E., Shafiee, S. (2018). The Effect of Implementing Flipped Classrooms on Iranian Junior High School Students' Reading Comprehension. *Theory and Practice in Language Studies*, 8(6), 665-673.
- Herreid, C. F., & Schiller, N. A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching*, 42(5), 62-66.
- Hsu, C.-K., & Chang, C.-K. (2010). Effects of automatic hidden caption classification on a content-based computer assisted language learning system for foreign language listening.
 Paper presented at the International Conference on Computers in Education, Putrajaya, Malaysia.
- Kim, M. K., Kim, S. M., Khera, O., & Getman, J. (2014). The experience of three flipped classrooms in an urban university: an exploration of design principles. *The Internet and Higher Education*, 22, 37-50.
- Kiriakidis, P. P. (2011). *Teachers' experiences with emerging learning technologies*. Rochester: doi:10.2139/ssrn.1783148
- Kisby, N. (2011). The Role of ICT in EFL Teaching: An action research project with young learners in the Czech Republic. Retrieved from www.geocities.com/fut04ure07stars
- Love, B., Hodge, A., Grandgenett, N., & Swift, A. W. (2014). Student learning and perceptions in a flipped linear algebra course. *International Journal of Mathematical Education in Science and Technology*, 45(3), 317-324.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social media & mobile internet use among teens and young adults. Retrieved from: https://scholar.Googleuser content. Com /scholar?q=cache:7QNKnWGQNaoJ:scholar.google.com/+Lenhart,+Purcell,+Smith,+%2 6+Zickuhr,+2010&hl=en&as_sdt=0,5
- Mehring, J. (2015). An exploratory study of the lived experiences of Japan undergraduate EFL students in the flipped classroom. Unpublished Doctoral Dissertation. Pepperdine University: Malibu
- Merchant, G. (2009). Web 2.0, new literacies, and the idea of learning through participation. *English teaching: practice and critique*, 8(3), 107-122.
- Millard, E. (2012). Five reasons flipped classrooms work: Turning lectures into homework to boost student engagement & increase technology-fueled creativity. *University Business*, 15(11), 26-29.

- Milman, N. B. (2012). The flipped classroom strategy: What is it and how can it best be used? *Distance Learning*, *9*(3), 85-87.
- Nguyen, T. (2018). Implementation of English Flipped Classrooms: Students' Perceptions and Teacher's Reflection. *International Journal of Research Studies in Language Learning*, 7(3), 87-108.
- O'Flaherty, J., & Phillips, C. (2015). The use of flipped classrooms in higher education: A scoping review. *The internet and higher education*, 25, 85-95.
- Oraif, I. M. K. (2018). An Investigation Into the Impact of the Flipped Classroom on Intrinsic Motivation (IM) and Learning Outcomes on an EFL Writing Course at a University in Saudi Arabia Based on Self-determination Theory (SDT) (Doctoral dissertation, University of Leicester).
- Overmyer, G. R. (2014). The flipped classroom model for college algebra: Effects on student achievement (Doctoral dissertation, Colorado State University).
- Padurean, A., & Margan, M. (2009). Foreign language teaching via ICT. *Revista de Informatica Sociala*, 7(12), 97-101.
- 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.
- Roehl, A., Reddy, S. H., & Shannon, G. J. (2013). The flipped classroom: An opportunity to engage millennial students through active learning strategies. *Journal of Family and Consumer Sciences*, 105(2), 44–49.
- Yousefzadeh, M., & Salimi, A. (2015). The effect of flipped learning (revised learning) on Iranian students' learning outcomes. *Advances in Language and Literary Studies*, 6(5), 209-213.
- Selwyn, N. (2009). Faceworking: exploring students' education- related use of Facebook. *Learning, media and technology*, *34*(2), 157-174.
- Shank, P. (2008). Thinking critically to move e-learning forward. *The e-learning handbook: Past promises, present challenges*, 15-26.
- Soliman, N. A. (2016). Teaching English for academic purposes via the flipped learning approach. *Procedia-Social and Behavioral Sciences*, 232, 122-129.
- Spires, H. A., Lee, J. K., Turner, K. A., & Johnson, J. (2008). Having our say: Middle grade student perspectives on school, technologies, and academic engagement. *Journal of research on Technology in Education*, 40(4), 497-515.
- Stone, B. B. (2012). Flip your classroom to increase active learning and student engagement. Proceedings of International Annual Conference on Distance Teaching & Learning. WI: Madison
- Uzunboylu, H., & Karagözlü, D. (2017). The emerging trend of the flipped classroom: A content analysis of published articles between 2010 and 2015. *Revista de Educación a distancia*, (54).
- Vaezi, R., Afghari, A., & Lotfi, A. (2019). Flipped Teaching: Iranian Students' and Teachers' Perceptions. Applied Research on English Language, 8(1), 139-164.
- Walsh, K. (2013). Flipped classroom panel discussion provides rich insights into a powerful teaching technique. Retrieved from <u>http://www.emergingedtech.com/2013/06/flipped-classroom-panel-discussion-provides-rich-insights-into-a-powerful-teaching-technique/</u>
- Wilson, S. (2008). Patterns of personal learning environments. *Interactive learning environments*, *16*(1), 17-34.

- Zainuddin, Z., & Halili, S.H. (2016). Flipped classroom research and trends from different fields of study. *International Review of Research in Open and Distributed Learning*, 17(3), 313–340.
- Zappe, S. E., Leicht, R. M., Messner, J., Litzinger, T., & Lee, H. W. (2009). 'Flipping' the classroom to explore active learning in a large undergraduate course. In *ASEE Annual Conference and Exposition, Conference Proceedings*.