

The Effectiveness of Using Flipped Classroom on Grammar Learning among Iranian EFL Learners

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Abstract

This study tended to seek the effects of flipped classrooms on improving Iranian EFL learners' grammar learning. To this end, the researcher gave the OQPT to 80 Iranian second grade high school students to determine their level of English proficiency. The researcher selected 60 pre-intermediate students and divided them non-randomly into two equal groups; one experimental group (flipped classroom) and one control group (traditional classroom). Then, both groups were pretested through a researcher-made grammar test. After that, the researcher put the participants of experimental group in flipped classroom. The flipped classroom was equipped with Internet, computer and projector and participants in this classroom were allowed to bring their Smartphones to the classroom and use them during learning. On the other hand, the control group was taught in the traditional classroom. The results of paired and independent samples t-tests revealed that there were significant differences in learning English grammar between both groups: the experimental and the control ones, in favor of the experimental group, and this can be attributed to the use of flipped classroom in teaching the experimental one. Based upon the previous findings, the study recommended the necessity of implementing flipped classroom in teaching and learning English grammar to bring about better outcomes in students' achievement.

Keywords: Flipped Classroom, Grammar Learning, Pre-intermediate EFL Learners



1.1 Preliminaries

Grammar has a to a great degree respectable ancestry. The most punctual proof we have is from about 4,000 years prior, when the Akkadian-speaking scribes of Babylon figured out how to convert into Sumerian (which by then was at that point dead). Their preparation included learning tables of comparable verb-shapes in the two languages, so somebody must have investigated these verb shapes and delivered a methodical system. Or maybe strikingly, they requested first, second and third persons form in a specific order, with the goal that specific piece of our legacy might be four thousand years of age – an awesome case of insightful transmission (Gragg, 1994, p.83).

The term 'grammar' originates from the Greek articulation *grammatike tekhne*, signifying "specialty of letters," which likewise contains *gramma* "letter", so its modern meaning is a narrowing of the first, however it is still intently connected with composing. The Greeks built up the custom of syntactic investigation that dated back to the Babylonians into an all the more exceptionally organized and hypothetical framework – or, all the more precisely, a progression of various and contending frameworks – which connected to class instructing as well as to logic (Robins, 1967, p.73).

To some degree later, the Romans received this heritage and connected it to Latin, shaping the premise of the European syntactic convention which survived, with astoundingly little change, into the nineteenth century. For the Greeks and Romans, the school educational modules (called 'the liberal arts') had only three sections, one of which was grammar. (The other two were logic and rhetoric.) This convention held on through the Middle Ages, with Latin still as the medium of instruction; in this way, grammar was basically the grammar of Latin, instead of English. Grammar commanded the whole educational programs, a reality which we celebrate in the name despite everything we provide for a portion of the schools which were established in the late Middle Ages (or their later counterparts): 'grammar school'. By the nineteenth century the school educational modules had expanded extensively, however in government funded schools and grammar schools, grammar still had a noteworthy influence in the instructing of foreign languages (modern as well as classical) and in the educating of English. This instructive custom was shared, all things considered, by all of Europe, and in fact it was traded to the abroad settlements and regions. In a significant number of these nations, grammar still has its customary status and substance, yet with a few highlights modernized.

When learning or using a language, many people find that their grammar is far from perfect. But, grammar is certain; it is the foundation of any language and must be comprehended in order for one to impart adequately. Each time you compose something, you are being judged for your grammar. Having great grammar essentially influences you to look more astute, so it is vital for everybody to invest a little energy idealizing theirs.

Grammar for any language is very important because language cannot be transmitted correctly and accurately. Therefore, language without grammar is, to some extent, meaningless and aimless. Podgorski (2008, p. 4) asserts that grammar is considered to be an paramount part of a language and a means which helps learners convey their intended meaning appropriately. Azar (2007, p.3) sees that grammar is to enable students to find the idea of language that comprises of unsurprising examples that make what we say, read, hear and compose comprehensible. Ur (1992, 1991) and Gao (2001, p.12) state that grammar helps learners to express their thought correctly either in speaking or in writing. Also, Leech, et al. (1982, p. 8) see that mastering grammar helps learners improving their style of writing.

Inquiry-based or constructivist learning is the philosophy that learning is the formation of abstract concepts in the mind to represent reality (Bruner, 1961; Piaget, 1968). Constructivism contends that the utilization of intuitive exercises in which students assume dynamic parts can draw in and spur adapting



more adequately than exercises where students are passive. The flipped classroom and online videos bolster the precepts of constructivism by liberating class time for inquiry-based learning (Brandt, 1997).

The flipped classroom supported by the constructivist theory, should enable learners to engage in interactive, creative, and collaborative activities during knowledge construction (Kim & Bonk, 2006). However, the flipped model is a blending of direct instruction with constructivist learning, allowing students the complicated nomenclature of grammar while freeing class time to teach students to think creatively.

The “flipped classroom” is a new catch phrase in education, but is not a completely novel idea. Teachers often assign reading to be done at home, and then expect students to engage in conversation about the reading in class. This design could be classified as an inverted classroom (Strayer, 2012). However, a few key characteristics distinguish the flipped classroom from an inverted classroom. In the flipped classroom, students watch video-recorded lectures outside of class, thus increasing time for active learning and practice to occur in class (Strayer, 2012). While implementation of this method may look slightly different for each teacher, essentially “the ‘flipped’ part of the flipped classroom means students watch or listen to lessons at home and do their ‘homework’ in class” (Fulton, 2012, p. 13).

Flipped classrooms are believed to be very useful for teaching and learning. Some pedagogical benefits of the flipped classroom were determined by some researchers. These benefits include (1) students and instructors’ positive perceptions of the active learning environment (e.g., Butt, 2014; Gilboy, Heinerichs, & Pazzaglia, 2015), (2) more active engagement during class (e.g., Deslauriers, Schelew, & Wieman, 2011), and (3) superior achievement on formative/summative assessments (e.g., Amresh, Carberry, & Femiani, 2013). For instance, when Love, Hodge, Grandgenett, and Swift (2014) actualized a flipped linear algebra course, the majority of learners revealed that the approach helped them build up a more profound comprehension of the substance. Amresh et al. (2013) revealed that learners in a flipped introductory PC programming course performed fundamentally superior than did students in a practically identical conventional course outline on assignments and exams.

Regarding the mentioned points, this study wants to examine of the effects of the flipped classrooms on grammar.

1.2 Objectives of the Study

In general, this study aimed to stress the importance of flipped classrooms in educational setting. In particular, this study intended to seek the effects flipped classrooms on improving Iranian EFL learners' English grammar.

1.3 Research Question

The research question addressed in this study was as follows:

RQ 1. Do flipped classrooms significantly affect Iranian EFL learners' English grammar?

1.4 Research Null Hypothesis

This study was based on the following null hypothesis:

H0 1. Flipped classrooms do not significantly affect Iranian EFL learners' English grammar.

2. Review of the Related Literature

2.1 Theoretical Background

2.1.1 Teaching grammar

Teaching grammar is a large part of the work of many language teachers and there is no single correct way in conveying this knowledge to students. Being a native speaker or having a wide range of knowledge about the grammar of a language alone do not make a person a great language teacher. It is how the teacher makes this knowledge comprehensible to the learners that makes a great teacher (Krashen



1982). It is up to the teacher to choose the most appropriate way of presenting grammar to each group at a specific moment (Clandfield, et al. 2011).

Grammar teaching can be inductive or deductive. The deductive approach being more teacher-centered in the sense that it is the teacher who tells students the rules and information on grammar. The inductive approach involves students figuring out rules with the help of the instructor. Often these approaches can be mixed and both be used in the same classroom (Clandfield, et al. 2011), but the deductive approach is more common in textbooks and classrooms (Ur, 2012). Whether in class or using the flipped classroom technique to give grammar instruction, grammar presentation needs to be memorable, clear, effective and appropriate in order for it to engage learner attention and increase the chance of learners remembering the explanations (Clandfield, et al. 2011).

As learners' cognitive abilities change over time, it is important to bear in mind whether explicit or implicit grammar instructions should be considered (Williams, 2013). Ur (2012) states that according to a survey carried out by Norris and Ortega in 2000, students who had received some explicit grammar explanations did better than those who had not. It is determined in that study that grammar instruction is important especially in the EFL classroom setting, and even more so for adult EFL learners, as classroom instruction is often the only input these learners receive in grammar teaching.

Though teachers try to express themselves as clearly as possible in class, use common vocabulary and emphasize important notions, it might take a different amount of time for a learner to comprehend what the instructor is trying to convey (Krashen, 1982). There are some aspects of learners receiving explicit grammar instructions via video that compensate for the shortages that might occur in the classroom, including the option to pause, stop and rewind according to the pace of the learner.

Kvashnina and Martynko (2013) believe much of the ESL class content can be flipped, including vocabulary, instructions for writing tasks and grammar explanations. According to Krashen (1982) and the acquisition-learning distinction, there are two ways for adults to learn a language: one is language acquisition which means acquiring a language like a child in an indeliberate manner, and the other is what he calls learning the language in the sense of being aware of and able to talk about the rules of the second language. According to the first, an adult develops their knowledge of a language similar to a child and in the latter mentioned an adult consciously learns a language, being aware of language rules or grammar – both may be present when learning a language as an adult. The students of the author of the present thesis are not on a daily basis exposed to the language environment, so in addition to language acquisition in class, students need to put effort into consciously learning as well. Providing them with grammar explanations via video enables them to consciously learn in an innovative way. If it proves to be of interest and beneficial for the learner, they might watch the videos again, being repeatedly exposed to the language.

2.1.2 Flipped Classroom

In 2007, science teachers Jonathan Bergman and Aaron Sams were planning on a strategy to provide lectures to their students who missed classes owing to various activities. They came out with a novel idea of teaching, in Woodland Park, Colorado, called the flipped classroom method, which has created a new perspective in education. Bergmann (2012) recalls: In the spring of 2007 Aaron was browsing an innovation magazine and demonstrated to me an article about some product that would record a PowerPoint slide indicate including voice and any comments, and afterward it changed over the chronicle into a video document that could be effortlessly conveyed on the web. As we talked about the capability of such programming we understood this may be a path for our students who missed class to not pass up a major opportunity for learning. In this way, we started to record our live exercises utilizing screen catch programming. We posted our addresses online so our students could get to them. When we did this, YouTube was simply beginning and the universe of online video was simply in its outset. In all genuineness,



we recorded our exercises out of selfishness. We were investing unreasonable measures of energy re-instructing exercises to students who missed class, and the recorded addresses turned into our first line of defense.

The flipped classroom is frequently thought of as a cycle since students watch a video, examine and apply that information in class, and after that watch another video for new substance presentation, in a constant circle (University of Texas, 2013). A flipped class combines two established elements of education: the lecture and active learning. Students have access to video lectures ahead of time along with other background material, which “frees up more face-to-face time to let students seek clarification from educators, collaborate with peers, and practice applying concepts while getting guidance and feedback directly from experts” (University of Texas, 2013, p. 89). Educators who flip their class value lectures given as homework, as an aid to learning. Homework is important because it is a time where students can share their learning progress with their family, be alone with their thoughts, reflect on their learning, and review the material as well as the educator’s feedback (Fulton, 2012, p. 96).

Flipped Learning has been contrasted with on the online, blended, and separate learning as a result of the screencast or video segments, however there are clear contrasts. Online instruction, for instance, happens just remotely, and the educator and student are never face-to-face (Oblinger & Oblinger, 2005, p. 55). Virtual class gatherings, assignments, and addresses happen online through a course administration site more often than not, yet not generally, asynchronously. Some of the time the addresses and different exercises are increased by group chats or different methods for encouraging coordinated effort and companion instruction. Mixed classes additionally have an online component, however that for the most part happens amid class time alongside coordinate student-teacher contact (Allen, Seaman, & Garrett, 2007). Students’ encounters in face-to-face sessions fluctuate, however, and are not really not the same as what happens in a conventional classroom.

A flipped classroom is a learner-centered learning environment focusing on the students’ experience of learning and not on the delivery of instruction in the classroom. In a traditional classroom where the teacher is the direct source of information and the sage on the stage, the flipped classroom of instruction promotes growth and development of learning (Jarvis, 2010, p. 57).

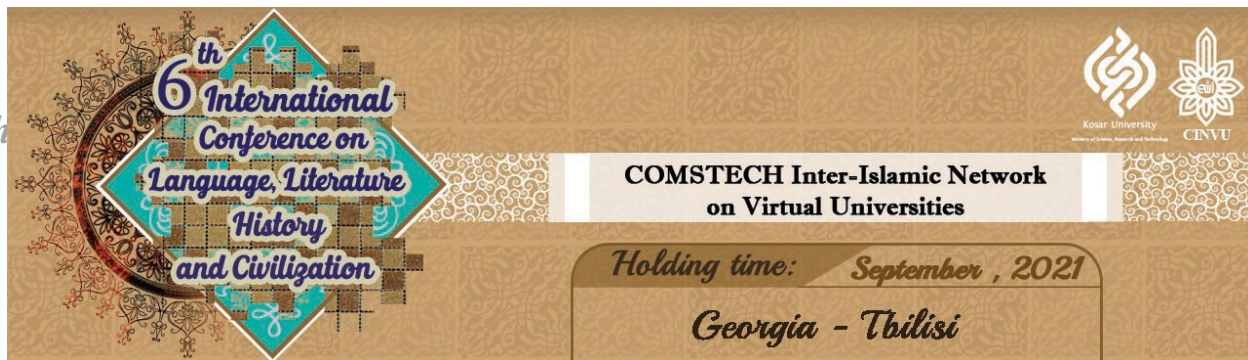
The instructor’s role converts to guide on the side and transitions students away from being inactive recipients of static knowledge to engaging participants that discover and understand learning objectives on their own (Brown, 2012, p. 87).

In general, flipping the classroom means students are exposed to new material outside of the classroom, via reading or lecture and demonstration videos (Brame, 2013, p. 84). The use of technologies has made it possible to share learning materials when not in the classroom (Baker, 2000, p. 10). The flipped classroom model “provides students with more control over their learning,” and “gives students a greater sense of their own responsibility for their learning” (Baker, 2000, p.11). The flipped classroom will “Provide students with more opportunities to learn from other peers” (Baker, 2000, p. 12).

It can be remarked that the term flipped classroom was defined from many different viewpoints. From the researcher's viewpoint, it is a style of blended learning which has certain characteristics depending on audio visual interactive before class time (at home) and gives the essential information for the students through it, and depends on many strategies like: active learning, project learning, group learning, and individual learning in class.

2.3 Experimental Studies

Marlowe (2012) In this investigation, the effect of the flipped classroom and associated differentiation was studied to measure the impact on student achievement and student stress levels. The researcher adopted the experimental approach. It was tested on the 19 students (14 females, 5 males) in the



Environmental Systems and Societies (ESS) course in Year 1 (grade 11) and from September through December of Year 2 (grade 12). For the second semester of their senior year, understudies watched video addresses outside of class and finished assignments amid class time. Tools of this investigation were student self-reported stress, effort, and completion levels survey, student reflection, interview, conservation and biodiversity. Students revealed bring down feelings of anxiety in this sort of classroom condition contrasted with different classes. While semester grades demonstrated change, exam grades did not indicate noteworthy change. Overall, students showed positive emotions towards the treatment and delighted in the related advantages of having the capacity to pick their own assignments and explore concepts they found interesting more in-depth.

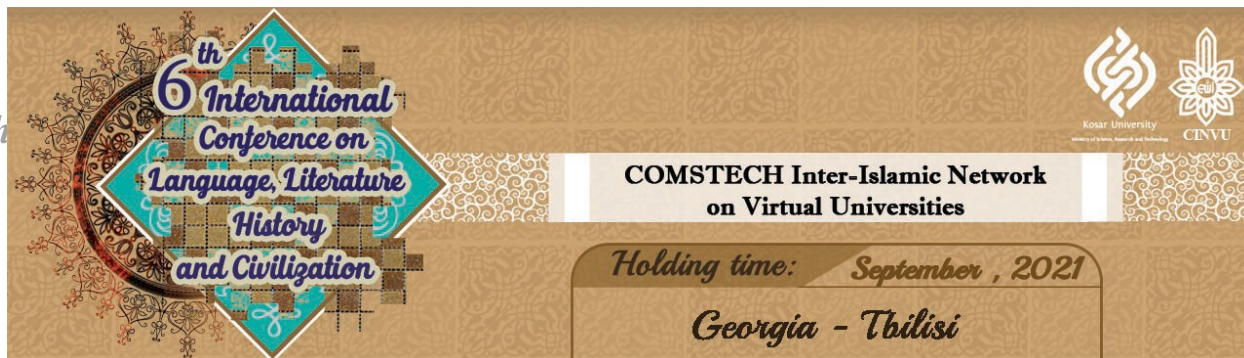
Lisa, Johnson and Jeremy Runner (2012) examined the impact of the flipped classroom display on an auxiliary PC applications course, student and teacher recognitions, inquiries and student development. The discoveries showed that no advantage to utilizing the flipped classroom guideline in an optional PC application. Overmyer (2014) researched the impacts of flipped classroom display on students' enhancement. The discoveries of this examination demonstrated that there was not a factually noteworthy distinction in the scores of students in the two groups; notwithstanding, students in the flipped segments showed improvement over students in the customary segments.

Szparagowski's (2015) study investigated the "flipped" or "modified" classroom and its consequences for student learning. The flipped classroom is a type of training in which students learn new substance amid out-of-class-time rather than the customary audit practices that are typically given, which opens up class time for exercises, critical thinking, and different types of direction. Amid this examination, a flipped classroom was actualized in a secondary school science course. The required data were gathered from students' reviews, a pre and post overview, a class talk with/exchange, and the researcher's close to home notes from instructing. The outcomes showed that some potential advantages of the flipped classroom make it a type of training that instructors ought not neglect.

Al-Faheed (2015) aimed to find out the impact of flipped classroom strategy, with the usage of podcasting through mobile devices, on the achievement level of female Saudi students who study English grammar course in the Preparatory Programs at Imam Mohamad bin Saud University at Riyadh. It also focused on whether their beliefs about classroom environment change after using flipped classroom strategy. The study also examined the relationship between students' achievement and attitude toward classroom environment. The study sample consisted of 42 students who were equally divided into a control and experimental group, and as research tools the study used a translated version of College and Universities Classroom Environment Inventory (CUCEI) and an English grammar achievement test.

The study found the following: 1. The flipped classroom strategy was effective in developing students' attitudes toward their classroom environment and enhancing their achievement in English grammar course. 2. There was a relationship between students' attitudes toward their classroom.

Yoshida (2016) tried to identify Japanese university students' perceived usefulness of "flipped learning" on instructional design for elementary and secondary education. A self-report questionnaire sheet, which was a written form of free-response style, was used to identify learners' perceived usefulness of the "flipped learning." Participants were asked what they found useful about "flipped learning." Participants were 66 Japanese third-year university students who participated in an educational technology class. Results of the survey revealed that one fourth of the participants found "flipped learning" useful because learners can study through the video over and over again, "flipped learning" enhanced learners' understanding, learners could study at their pace, learners could stop the video whenever they wanted to, learners could study though the video on their own time, and flipped learning enhanced the effectiveness of classroom lessons. The findings of this study suggested that instructors should promote learners' perceived usefulness



of "flipped learning". "Flipped learning" requires learners to autonomously study at home and collaboratively study in class.

Ching Lin and Chen (2016) aimed to verify and to understand the effects of flipped classroom on the learning effectiveness, while using learning satisfaction as the mediator. The findings showed that: 1) both the instructors and students of technical and vocational colleges (the first half) believed that flipped learning has a positive effect on learning satisfaction; while the students of the second half of technical and vocational colleges believed that flipped learning has a negative effect on learning satisfaction; 2) both the instructors and students of technical and vocational colleges (both halves) believed that flipped learning has a huge constructive outcome on learning adequacy; and 3) both the educators and understudies of specialized and professional universities (the primary half) trusted that flipped learning positively affects learning viability; while the teachers and understudies of the second 50% of specialized and professional schools trusted that flipped learning negatively affects learning viability. Outlining the above, learning fulfillment has a fractional intervening impact.

3. Method

3.1. Participants

Sixty pre-intermediate EFL learners were selected from among 80 second grade high school students at a private language institute in Fars, Iran. The participants' age range was from 15 to 16. Their level of English language proficiency was determined based on their scores on the Oxford Quick Placement Test (OQPT). The learners were non-randomly divided into two groups of experimental groups (flipped classroom) and one control group (traditional classroom). Only males were participated in the current study.

3.3 Instruments

The first instrument which was used in the present study to homogenize the participants is the OQPT. It helped the researcher to have a greater understanding of what level (i.e., elementary, pre-intermediate, intermediate) her participants were at. According to this test, the learners whose scores were between 28 and 37 (out of 60) were considered as the pre-intermediate learners.

The second instrument was a researcher-made grammar pre-test. To realize the current participants' listening comprehension level, a researcher-made pre-test was designed based on the students' materials (New Headway by John Soars, 2007). It was a grammar test consisted of 40 objective multiple-choice items. The pre-test validity was confirmed by a panel of English experts and its reliability was computed through using KR-21 formula ($r=.936$). The pre-test was piloted on another similar group so as to check the feasibility of the test that was going to be administered to the target participants.

The third instrument which is used in the current study was a post-test of grammar. After the treatment, a modified version of the pre-test was used as the post-test. All characteristics of the post-test were similar to the pre-test in terms of time and the number of items. The only difference was that the order of questions and alternatives were changed to wipe out the probable recall of pre-test answers. It was given to the participants to assess their grammar after the treatment period and to measure the impacts of flipped classrooms on their English grammar. It was valid and reliable since it was the modified version of the pre-test.

3.3. Procedure

To conduct the present study, the researcher attended the above-mentioned high school and gave the OQPT to 80 Iranian second grade high school students to determine their level of English proficiency. The researcher selected 60 intermediate students and divided them non-randomly into two equal groups; one experimental group (flipped classroom) and one control group (traditional classroom). Each group contained 30 participants. Then, both groups were pretested. After that, the researcher put the participants of experimental group in flipped classroom. The flipped classroom was equipped with Internet, computer



and projector and participants in this classroom were allowed to bring their Smartphones to the classroom and use them during learning. On the other hand, the control group was taught in the traditional classroom. This procedure continued till the last session. The treatment lasted 10 sessions of 50 minutes each under the guidance of the supervisor. In the last session, both groups took the post-tests of grammar.

3.5 Data Analysis

The collected data through the aforesaid procedures were analyzed and interpreted according to the objectives of the study. Firstly, Kolmogorov-Smirnov (K-S) test was used to check the normality of the gathered data. Then, the descriptive statistics were calculated through using SPSS software, version 25. Finally, paired samples t-test and independent samples t-test were run to determine the effectiveness of flipped classrooms on Iranian EFL learners' English grammar.

4. Results

In order to analyze the gathered data, the Statistical Package for Social Science (SPSS) software version 25 software was used.

Table 1:

One-Sample Kolmogorov-Smirnov Test (Groups' Pre and Post-tests)

		Exp. Pre	Exp. Post	Cont. Pre	Cont. Post
N		30	30	30	30
Normal Parameters ^{a, b}	Mean	7.3167	14.7767	8.0167	9.1667
	Std. Deviation	2.46172	2.13908	2.61785	1.80198
Most Extreme Differences	Absolute	.137	.091	.185	.107
	Positive	.137	.091	.185	.078
	Negative	-.102	-.090	-.108	-.107
Test Statistic		.137	.091	.185	.107
Asymp. Sig. (2-tailed)		.157 ^c	.200 ^{c,d}	.062 ^c	.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

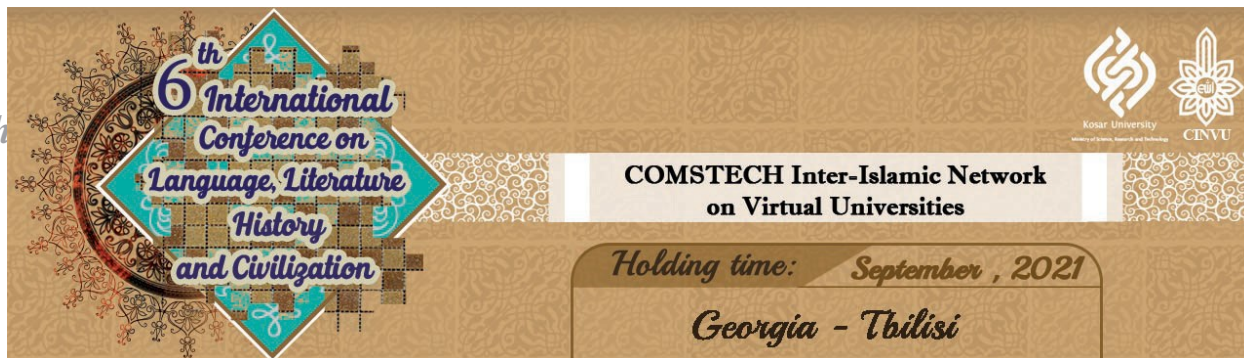
Table 1 shows that the statistics of scores is normal as the results obtained from using SPSS 25. In this case, the parametric statistics like independent samples t-test and paired samples t-test can be used to get the final results.

Table 2:

Group Statistics (Pre-test of Both Groups)

Groups		N	Mean	Std. Deviation	Std. Error Mean
Pretest	Experimental Group	30	7.3167	2.46172	.44945
	Control Group	30	8.0167	2.61785	.47795

In Table 2, the descriptive statistics of both groups is presented. The means of both groups are almost equal. The Experimental group's mean score is 7.3167 and the Control group's mean score is 8.0167.



This means that the both groups are somehow similar since they are homogeneous at the beginning of the treatment.

Table 3:
Independent Samples t-test (Pre-test of Both Groups)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pretest	Equal variances assumed	.301	.586	-1.067	58	.290	-.700	.656	-2.01	.613
	Equal variances not assumed			-1.067	57.7	.290	-.700	.656	-2.01	.613

In Table 3, an independent samples t-test was used to show the scores of both groups on the pre-test. Since the Sig (.290) is greater than 0.05, the difference between the groups is not significant at ($p < 0.05$). In fact, they performed the same on the pre-test.

Table 4:
Group Statistics (Post-test of Both Groups)

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Experimental Group	30	14.7767	2.13908	.39054
	Control Group	30	9.1667	1.80198	.32899

Table 4 displays the descriptive statistics of both groups on the post-test. The means of the groups are different. The experimental group's mean score is 14.7767 and the control group's mean score is 9.1667. This means that the experimental group outperformed the control group on the post-test.

Table 5:
Independent Samples T-test (Post-test of Both Groups)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Posttest	Equal variances assumed									
	Equal variances not assumed									



		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Posttest	Equal variances assumed	1.097	.299	10.98	58	.000	5.61	.510	4.587	6.6383
	Equal variances not assumed			10.98	56.374	.000	5.61	.510	4.58	6.63

Table 5 indicates that Sig (.000) is less than 0/05, this means that the difference between the both groups is significant at ($p < 0.05$). In fact, the experimental group outperformed the control group on the post-test.

Table 6:
Paired Samples Statistics (Pre and Post-tests of Both Groups)

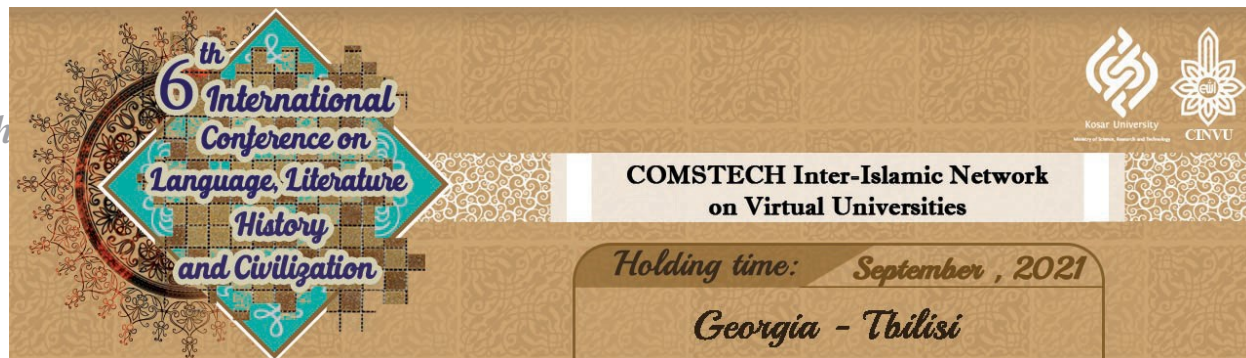
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Exp. Post	14.7767	30	2.13908	.39054
	Exp. Pre	7.3167	30	2.46172	.44945
Pair 2	Cont. Post	9.1667	30	1.80198	.32899
	Cont. Pre	8.0167	30	2.61785	.47795

Based on the descriptive statistics in Table 6, the mean scores of the experimental group on the pre and post-tests are 7.3167 and 14.7767, respectively. The mean scores of the control group on the pre and post-tests are 8.0167 and 9.1667, respectively.

Table 7:
Paired Samples Test (Pre and Post-tests of Both Groups)

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Exp. Post – exp. Pre	7.460	3.2318	.59004	6.25322	8.66678	12.643	29	.000
Pair 2	Cont. Post – cont. Pre	1.150	2.4359	.44473	.24042	2.05958	2.586	29	.015

In the above table, a paired samples t-test is used to compare the pre and post-tests of each group. The difference between the post-test and pre-test of the experimental group is significant since; Sig (.000)



is less than 0.05. Similarly, the difference between the post-test and pre-test of control group is significant since Sig (.015) is less than 0.05.

5. Discussion

After analyzing the data and obtaining the results, the researcher arrives at the discussion section to answer the question and compare and contrast it with the previous studies. So, the question of the present research is answered below.

RQ 1. Do flipped classrooms significantly affect Iranian EFL learners' English grammar?

After collecting the data, the researcher used Paired Samples t-test and Independent Samples t-test to analyze them in order to find the effectiveness of flipped classrooms on students' English grammar. The findings showed that the students who received instruction through flipped classrooms had better performance compared to those who were trained through traditional classrooms. The results statistically revealed that experimental group significantly did better than the control group ($p < .05$). Participants in the flipped classrooms were highly motivated to learn because of the available facilities. Flipped learning is generally found to increase motivation (Bormann, 2014). Not only did they enjoy the learning, but also, they felt satisfied with what they learned. In fact, they gained higher scores in their post-test. This may be due to some appealing features the flipped classrooms have.

The flipped class can be more interactive than the traditional lecture; it can encourage contacts between students and faculty; it can develop reciprocity and cooperation among students, it can emphasize time on task. As the researcher observed, in the flipped classroom, during class time students engaged in discussions, activities, problem solving, and group work. Since students had prior knowledge, they could learn the lesson more easily.

However, the results clearly demonstrate not only that the students felt confident and able to study the grammar at home alone, but also, they were willing to continue to do so after the study. They also came to class more prepared and they valued the time created by moving the grammar outside the class, allowing for more meaningful, communicative speaking tasks. Also, of importance was the observation that students seemed to take more risks in using the language after studying grammar at home.

Furthermore, the participants enjoyed the Flipped content, in particular the videos, and the flexibility the content provided. They appreciated being able to work through the grammar activities at their own pace and the option of managing the amount of work they could choose to do.

These findings are largely consistent with other practitioners' findings after implementing Flipped Learning in their contexts (Strayer, 2012; Bergmann & Sams, 2012; Bishop and Verleger, 2013). However, one positive difference from previous reports is that not one student 'strongly disliked' the changes as reported by Bishop and Verleger (2013). A further implication of the positive views would be that students, over time, would have an increased sense of progress leading to improved student satisfaction.

The findings of this study are supported by Szparagowski (2015) who investigated the "flipped" or "inverted" classroom and its impacts on student learning. The data were gathered from student grades, a pre and post survey, a class interview/discussion, and the researcher's personal notes from instructing. The outcomes demonstrated that some potential advantages of the flipped classroom make it a type of instruction that educators ought not ignore.

Moreover, the obtained results are in line with Yoshida (2016) who identified Japanese university students' perceived usefulness of "flipped learning" on instructional design for elementary and secondary education. The findings of this study suggested that instructors should promote learners' perceived usefulness of "flipped learning". "Flipped learning" requires learners to autonomously study at home and collaboratively study in class.



The results of this study are also congruent with Al-Faheed (2015) who aimed to find out the impact of flipped classroom strategy, with the usage of podcasting through mobile devices, on the achievement level of female Saudi students who study English grammar course in the Preparatory Programs at Imam Mohamad bin Saud University at Riyadh. The study found that the flipped classroom strategy was effective in developing students' attitudes toward their classroom environment and enhancing their achievement in English grammar course.

The aftereffects of this study are not supported by Lisa and Jeremy (2012) who contemplated the impact of the flipped classroom model on an auxiliary PC applications course, student and educator observations, inquiries and student improvement. The discoveries uncovered that no advantage to utilizing the flipped classroom instruction in a secondary PC application.

6. Conclusion

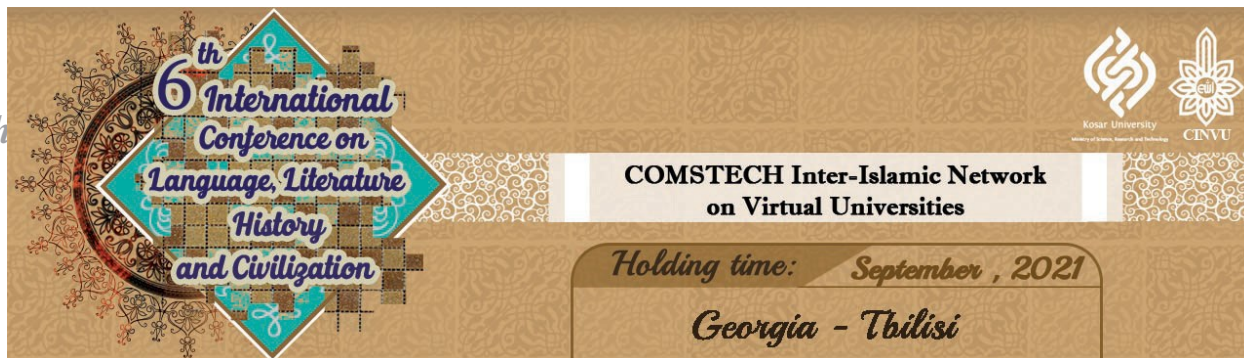
The results indicated that Iranian EFL learners can benefit from attending flipped classrooms. Based on the findings of the present study, it can be concluded that the implementing of flipped classrooms in teaching and learning can produce positive results because they could absorb students in learning English. The positive effects of using flipped classrooms became obvious after the treatment. Here, it can be claimed that receiving instruction through using flipped classrooms can facilitate English learning. Flipped classrooms can make the students independent and help them learn how to study out of the classroom.

The idea of the flipped classroom is not new in its meaning, but quite recent in the increase of popularity of the term. Nowadays, the flipped classroom usually means the instructor recording some video content and sharing it with their students as a homework task. This homework is a preparatory assignment for the following lesson, in which higher level cognitive tasks are tackled. As it is not only the millennial learners who need to be engaged by using technology, but also adults who are open to learning in innovative ways, the flipped classroom technique was implemented in this study on three groups of adult EFL learners in order to teach them grammar. The author concludes that employing the flipped classroom technique proved to have a seemingly positive effect on the majority of learners. Implementing the technique resulted in the improvement of test results and most self-evaluation ratings. Students seemed to perceive receiving grammar explanations via videos as homework tasks to be positive and a way they would like to continue learning. The excitement was visible among learners when told they would receive their next homework task as a video.

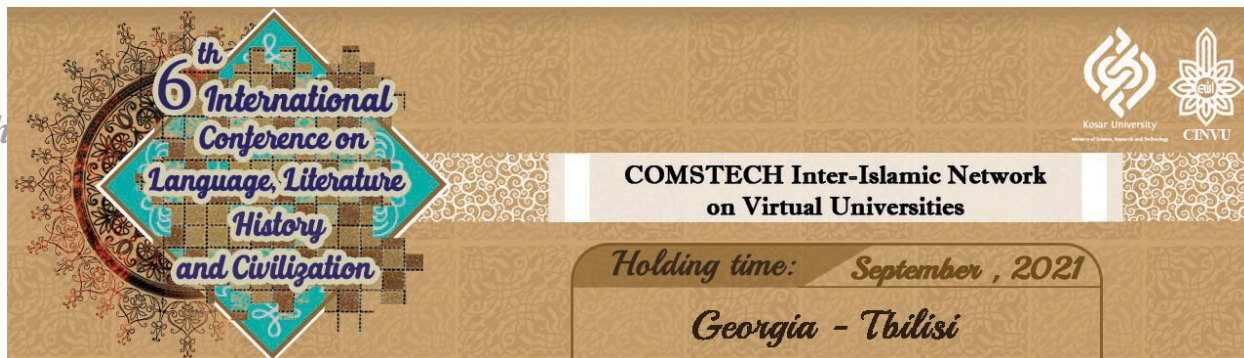
This study indicates that using the flipped classroom with EFL learners can have a positive effect on their self-confidence in applying specific grammar rules. Learners tended to achieve better results on tests having been taught using the flipped classroom technique. Participants in the study were generally positive about the use of videos for receiving initial grammar explanations and would clearly like to continue in this way. As the sample was quite small, no conclusions that are general for adult EFL learners, could be made. This study aimed to explore whether these groups of adult EFL learners would benefit from this way of learning and how the teacher could better prepare grammar explanations in the future. The importance of in-class activities, in addition to video content, needs to be considered when measuring the effect of the flipped classroom model, as an essential part of this technique. The author believes they will continue creating video content for their adult EFL groups and aims at improving the quality of these videos. If learners continue achieving positive results, the author might also share these videos with colleagues to use. Adult EFL learners seem to prefer to spend more of their in-class time on practicing the language – this indicates implementing the flipped classroom technique with at least some lessons to be beneficial.

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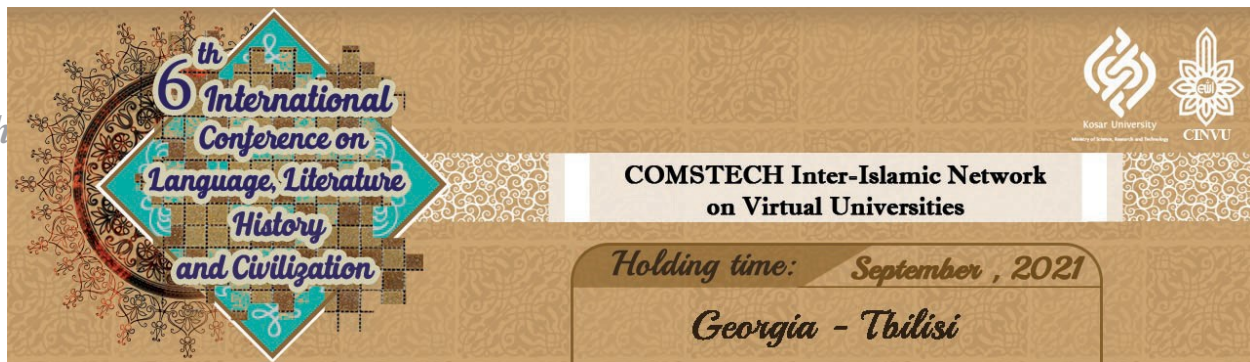
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