The Effect of Flipped Learning on English Writing Performance and Self-Efficacy of Iranian Medical Students

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Abstract
The current study investigates the effect of flipped instruction on writing self-efficacy and writing performance of Medical students at Shiraz University of Medical Sciences. Fifty students participated in this experimental study. They were assigned as the treatment group consisted of 25 students and the control group 25 students. The control group (the non-flipped classroom) was taught using traditional writing instruction, whereas the experimental group (the flipped classroom) was taught in a flipped learning mode. The questionnaire used in this study was adapted from Prickel's research (1994) and was scored based on the Likert scale for the writing self-efficacy. The data were gathered in a Pretest-Treatment-Posttest design. The results revealed that flipped instruction had a more positive effect on improvement of both writing self-efficacy and writing performance of the learners compared to those instructed traditionally. The results in this study extended the view point of EFL teachers to understand novel methods of instruction.

keywords: traditional instruction, flipped instruction, writing performance, self-efficacy, writing self-efficacy

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Introduction

Writing is an essential skill that facilitates communication among human beings. In learning English, writing has been observed as the most complicated skill (Hengwichitkul, 2009; Rattanadilok Na Phuket & Othman, 2015; Watcharapunyawong & Usaha, 2013). Lindemann (1982) refers to writing as a process of communication in which a writer uses the traditional system to show an idea or a content to a reader; to this end, writing is a process in which the writer can convey the message by using letters, punctuation, words or sentences in a graphical system. The process of communication would not be successful unless the reader and the writer understand the language being used in written form. According to Jahin and Idrees (2012), writing seems complex and hard for both native and non-native learners since writers should make a normal balance between numerous issues like purpose, content, audience, mechanics, organization, and vocabulary in their writing drafts.

The present situation of Iranian EFL learners' writing does not seem to meet their needs. Due to the limited exposure of EFL learners to English in Iran which is confined to only language classes (Kafipour et al., 2018), teachers are most of the time concerned about delivering efficient writing instruction to learners. Although the research in the field of writing has been growing recently, it is still far from being satisfactory. Therefore, any studies dealing with students' learning of writing skills, especially in EFL contexts would be of great benefit in the field of language. Due to the advent of technology, it is believed that applying multimedia technology in English teaching will be expanded worldwide; consequently, the significance of this study is incorporating technology in teaching, in this case providing audiovisual aids which might pave the way for both teachers and students to alleviate the afore-mentioned problems. Nowadays, with the great help of computer technology (Computer Assisted Language Learning), it is hoped that the main obstacles of the language learners are identified, and the corresponding remedial teaching methods are put forward. Considering the rapid explosion of science and technology, the vital role of multimedia technology and its function in teaching, in creating audio, visual, and animation effects has been more highlighted in English teaching classes and sets a good opportunity for examination of new models of English teaching in this new era. Several studies have depicted the positive function of multimedia technology in enhancing the students' motivation, and activities in English class. Technological development, digital innovations, and the growth of English have gone hand in hand that are changing the way we communicate (Hekmatzadeh et al., 2016).

It is worth mentioning that the expansion of the Internet has assisted the development of the English language. Regarding this fact, there has been a very crucial increase in the literature considering the application of technology in teaching the English language (Eshet, 2004, 2007; Koehler & Mishra, 2009). Thus, it is necessary for the language instructors to be aware of the latest equipment and have full knowledge about what is available in different situation. Many techniques can be used in various stages of the language learning situation. Some of the techniques in language learning are applicable in testing and distance education, and some are useful for teaching business English, reading, listening, or even interpreting. There are different reasons for knowing how to make use of the new technology. Here, it is also worth mentioning that the new technologies develop in such an accelerating rate that we cannot disregard their power in any form. In this

regard, to overcome the aforementioned difficulties, new technologies are available to be utilized in modern styles, which suit not only the auditory, but also the visual styles of the students (Halwani, 2017; Khojasteh et al., 2016; Tajallizadeh Khob & Rabi, 2014).

Although the research on the writing process is growing, only a few studies have described the usefulness and effectiveness of different strategies, technologies, and even new methodologies accepted and administered by academic writers, though a lot of research (e.g. Brick & Holmes, 2014; Henderson & Phillips, 2014) have focused on the function of digital feedback in removing these problems. The number of studies such as that conducted by Khojasteh et al. (2018) that have explored methods to improve writing instruction through the use of technology with the aim of facilitating teacher-created feedback in English language classrooms is limited (Henderson & Phillips, 2015).

There is a large bulk of literature about evaluation, assessment, and feedback (e.g. Carless & Boud, 2018; Evans, 2016; Evans, 2013; van Heerden et al., 2017), but there is only a small portion, which concentrates on the innovation of digital or computer-based audio-visual instruction, a view shared by Henderson and Phillips (2015) with a lesser amount of literature focused on student achievement. This study will assess the effectiveness of this mode of instruction in terms of student writing performance. Thus, different methods have been used to understand whether other modes of instruction such as audio and video can have any effects on the learners' performance, particularly writing performance. One of the causes of this progress might be increased attention toward distance learning in modern life.

Writing Self-Efficacy and Writing Performance

Self-efficacy refers to trusting our capabilities to face challenging tasks (Gaumer Erickson & Noonan, 2016). Pajares (1996) indicated that self-efficacy influences different factors such as academic motivation, learning, and achievement. Bandura (1977) claimed that people with low self-efficacy easily give up while they encounter difficulties. Thus, estimating the learners' level of academic self-efficacy during their learning procedure is essential (Bandura, 1986b; Schunk, 1985; Zimmerman & Martinez-Pons, 1990). Based on the National Institute of Education (1980), it is necessary to estimate such self-efficacy to improve both instruction and assessment in adult learners' learning procedures.

Beach (1989), Meier et al. (1984), McCarthy et al. (1985), Shell et al. (1989), Zimmerman & Martinez-Pons (1990) have all examined the impact that self-efficacy may have on learners' function in writing, and all of them have found out that self-efficacy is a factor that can predict the actual function of participants in writing. In the same line, Pajares & Valiante's (1996) results revealed that participants' writing self-efficacy in elementary schools depicted their writing performance.

Flipped Instruction

As Bartlett (1994) stated, the traditional method of writing instruction is revealed as a teacher-controlled approach. It refers to traditionally long-established pedagogical procedures, which focus on materials such as pre-printed textbooks (Funk & Funk, 1989). Within the traditional classroom, pupils do not have access to the subject directly; they have little information about the material and issues in the classroom, and they mostly have to do homework after the class at home. In the

classroom, instructors teach all the knowledge, which is often the basic knowledge about an issue, and students have to memorize and learn them at home, which is homework.

Before graduation, learners must attain proficient writing skills. However, based on Bless (2017), the performance of some learners is not satisfactory and acceptable in writing; as a result, academic instructors recommended that a significant aspect to improve the learners' writing skills is to create new methods to apply in classroom rather than the traditional one. This procedure can help the students to promote their overall writing performance and assist the instructors to change and improve their writing instruction. Consequently, many investigations have been conducted on the application and efficacy of a new approach to teaching named the flipped classroom pedagogy (Soliman, 2016; Szparagowski, 2014).

Flipped instruction is providing instructions in a digital format; it is usually a video to be seen before class, and instead, use the class time for communicative group practices. In English language learning and teaching, several studies regarded the vital role of having flipped classrooms. The advantages of applying the flipped model of instruction in language learning classes are increasing autonomous learners (AlJaser, 2017), decreasing the number of formal class meetings (Johnson, 2013), raising learners' ingenuity (Al-Zahrani, 2015; Song & Kapur, 2017), expanding their class activities (Basal, 2015), boosting the participants' stimulus (Davies et al., 2013; Elian & Hamaidi, 2018; Sirakaya & Ozdemir, 2018; Villanueva, 2016), improving the learners' academic performance (Evseeva & Solozhenko, 2015), paving the way for class discussion (Marlowe, 2012), and enhancing the learners' communicative skills (Unakorn & Klongkratoke, 2015). Therefore, the Flipped Classroom is a new pedagogical method that transfers lecturing and note-taking outside the classroom to be done by learners, which enables constant contact between teachers and learners and even learners themselves.

Based on Allen et al. (2011), "Visual aids add interest to an instruction, and individuals can make use of different senses" (p 1-5). In the same vein, as witnessed by Mathew and Alidmat (2013), audio-visual aids would facilitate comprehension.

According to Sugar et al. (2010), audiovisual aids allow the teachers to form behaviors and actions and allow the learners to view and review the content any time and every time they need at their convenience.

What appears to be at the heart of this mode of instruction is the fact that nowadays the students have completely different expectations when compared to the past. Moreover, it is too difficult to draw their attention through the traditional teaching procedures. Furthermore, it is hard to deal with some difficulties regarding teaching and learning via traditional methods. Accordingly, the instructors today must try to create new teaching procedures that meet the needs of this generation; therefore, alternatives to traditional instructions and approaches would be critical. Although it facilitates video recording along with narration comments, the empirical studies investigating the use of audio and visual equipment to provide feedback in EFL contexts are rather limited.

Despite the teachers' attempts to help the learners improve their writing skills, students usually hesitate to write due to the perceived difficulty of foreign language writing. To overcome this problem, teachers have suggested a variety of techniques. To activate the students' digital competencies, teachers can use flipped instruction which is the most noticeable way of shifting from traditional pen-and-paper-based writing classrooms into a more innovative model. Therefore, it is

obvious that traditional writing instruction needs to be changed. This study suggests a new model in teaching writing that is flipped instruction in writing classes.

Literature Review
Flipped Instruction, Having self-Efficacy in Writing, and Writing Performance

In a research conducted by Elian & Hamaidi (2018), the effect of the flipped instruction on fourth-grade science students' academic achievement was explored. The findings revealed that the pupils' function in the experimental group was better in the educational achievement test.

In another research, Sirakaya & Ozdemir (2018) investigated the influence of a flipped mode of instruction on the participants' academic attainment, their self-guided learning, and motivational factors. They came up with the point that the flipped instructed group outperformed the control group considering academic attainment, motivation, and retrieval.

As witnessed by Zheng et al. (2018), using an integrated pedagogical tool, the combination of off-line and flipped classroom activities, showed superior learning results, professional knowledge, and promoted the students' capabilities.

In Hung's (2015) study, the participants who were the receivers of flipped lessons showed a statistically considerable development in their academic functions, which might due to the fact that the teacher-created pre-class audio-visual materials paved the way for the learners to prepare for in-class practices.

This is in line with the findings of Daniel (2013), who talked about the benefits of applying audio-visual aids in teaching English. Some of the advantages of applying this mode of instruction are that it provides interest and motivation for learning, it saves time and explains the ideas easily and precisely, instructor's burden is decreased, different experiences emerge for the students, it makes learning English easy, and it enhances the pupil's attention in the lesson. With teacher-made video instruction, learners can handle the learning process by themselves (Brick & Holmes, 2008), and become more involved in the papers editing process (Thompson & Lee, 2012).

As O'Malley (2011) declares, using multimedia modes in teaching makes the learners feel relaxed because this mode of instruction is given in a personal manner. Accordingly, Ruffini (2012) realized that pupils preferred to receive audiovisual aids due to their greater flexibility because through digital instruction students could handle their writing process via recording the whole instruction as guidance. This is in line with Stannard's investigation (2008) who indicates that audiovisual aids are helpful for different learning styles and preferences. To have an effective teaching, a meaningful relationship between teachers and students is essential (Campbell et al., 2017).

AlJaser (2017), measured the usefulness of flipped instruction in academic attainment and female college students' self-efficacy, she realized that applying a flipped classroom makes learning more productive, and accordingly, teaching, and lecturing more interesting. Furthermore, Halwani (2017) found out that reading and writing improved when instructors used audio-visual aids, and multimedia helped the learners to grasp the issue and became interactive in the classroom with no fear of having problems due to shyness. However, there have been some reports that revealed no significant differences in terms of academic outcome between flipped and non-flipped instruction (Adnan, 2017; Guidry et al., 2013; Kissau et al., 2010), but the researches demonstrated that flipped classrooms should be considered equally

in pedagogical decisions since they have been found to be as effective as traditional modes of instruction.

On the other hand, as claimed by Bandura (1986a), one's behavior, under the influence of self-efficacy, can influence his or her academic success. Based on several studies, there is a relevance between the self-efficacy of participants and their functions in writing (Amogne, 2008; Chen & Lin, 2009; Erkan & Saban, 2011, Shah et al., 2011; Woodrow, 2011); consequently, self-efficacy has a significant influence in the students' writing skills. Several studies were in line with Bandura's assertion and depicted the influence of self-efficacy on learning (e.g. Lane & Lane, 2001; Lane et al., 2004; Pajares & Johnson, 1996; Pajares & Valiante, 1999; Shell et al., 1989; Shell et al., 1995). Based on Chen's (2007) investigation, self-efficacy predicts the students' language performance.

Daly in 1978 examined 3602 undergraduate students in writing classes with different levels of writing apprehension. He found out that those with little writing anxiety had better writing skills compared to learners with high apprehension. The results of this study are congruent with Lee and Krashen (1997), who conducted a study in Taiwan on the native speakers of Chinese. The findings revealed that students who have higher writing anxiety did not have any tendency to receive assessment. In another study with a similar type of outcomes, Woodrow (2011) explored the significance of self-efficacy in 738 Chinese university participants' writing. Like several other studies, the results depicted that an important link was between writing self-efficacy and writing performance.

In another research, Shah et al. (2011) worked on 120 Malaysian participants' general self-efficacy and their functions in writing. He concluded their test score in writing had a high positive relationship with their self-efficacy in writing.

As mentioned before, the present situation of Iranian EFL learners' writing does not seem to meet the needs; although a considerable amount of time is assigned in developing EFL writing, the result is still disappointing. Therefore, any research dealing with students' writing skills, especially in EFL contexts, would be of great benefit in the field of language. In the area of foreign language teaching, based on Lee (2003), a key factor for instructors, researchers, textbook writers, and program designers is having a good EFL writing. In the EFL context in Iran where the current study is conducted, research has shown that the flipped instruction, as an innovative mode in teaching procedure, depicted reassuring outcomes for language learning. For example, Mohammadi et al. (2019) came up with the point that flipped classrooms caused the Iranian EFL learners' language competence to enhance. Moreover, flipped instruction has been confirmed to have effective outcomes in Iranian EFL learners' writing skills (Abedi et al., 2019). Consequently, this research was conducted to better understand the impact of flipped instruction model which may influence the Iranian writing self-efficacy and writing performance, considering the point that both Iranian EFL teachers and learners have the tendency towards applying flipped mode of instruction in language teaching and learning (Jafarigohar et al., 2019; Vaezi et al., 2018).

However, there were some other research projects with different outcomes. For example, Al-Mekhlafi's investigation (2011) on the self-efficacy of Arab EFL trainee-teachers' in writing and their writing attainment contradicted the findings of the aforementioned studies. It depicted that there was no relationship between the

two variables. In this study, the participants' overall writing score includes portfolio, mid-semester test, class activity, and final scores affected self-efficacy since it is a task-specific variable. According to the literature review and considering the development of technology, the need to investigate the effect of flipped instruction, as a new model of instruction, on writing self-efficacy and writing performance seems urgent, especially in EFL context. The present study sought to answer the following research questions:

1. Does the type of instruction (i.e. flipped vs. traditional) influence the EFL students' writing self-efficacy?

2. Does the type of instruction (i.e. flipped vs. traditional) influence the EFL students' writing performance?

Methodology
Design of the Study

The present research applied an experimental research design to examine two experimental and control groups. We aimed to explore whether using flipped instruction can influence the writing self-efficacy and writing performance of medical students studying at Shiraz University of Medical Sciences.

Participants

The population of this study consisted of all medical students studying at Shiraz University of Medical Sciences in the 2019-2020 fall semester and those who had taken a 3-unit compulsory writing course. Each group consisted of 25 participants (a total of 50 students) who were assigned between two writing classes and their ages ranged from 20 to 24 years. Concerning the experimental nature of this study, researchers did their best to be very careful about any intervention between the results of the study and the environmental aspects that could impact on the study.

Instruments

Questionnaire. The researchers applied the questionnaire from Donald O. Prickel's research in 1994 to investigate the participants' self-efficacy in writing. This questionnaire consisted of 25 Likert scale questions, with 5 options as Strongly Disagree, Disagree, Unsure, Agree, and Strongly Agree. The back-translation method was applied to translate this questionnaire from English into the Persian language. In this regard, a competent translator first translated the questionnaire into Persian. After that, without reference to the original text, another professional translator again converted the Persian form of the questionnaire into English and then the researchers compared these two English versions.

It is good to mention that the researchers tested the content validity of this questionnaire by consultation with 3 experts to know whether each question reflects its intended concepts. Besides, the researchers tested the reliability of the questionnaire by means of Cronbach alpha and .79 was found as the internal consistency coefficient of the questionnaire, which was within the acceptable range. They collected the data in a pretest and posttest treatment design to examine the impact of flipped instruction on participants' self-efficacy in writing as the first dependent variable.

Test Scores. The researcher also used the students' writing scores and explored the effect of flipped instruction on the participants' functions in writing as

the second dependent variable in both classes. To make sure that these students were homogenous in writing ability, we collected and analyzed their very first writing assignment- before treatment- as a pre-test using an independent sample t-test. Based on the results, the difference was not significant; therefore, the two writing groups were homogenous. After 12 weeks, the students' midterm exam data were collected and analyzed as post-test.

Writing Grading Rubric. The Analytic Rubric by Jacobs et al. (1981) was used to score the learners' writing assignments. The rubric assessed the medical students' skill in writing using 5 traits, including content, organization, language use, vocabulary, and mechanics. The scores allocated to each of these traits included: Content = 25, Organization = 25, Language use = 25, Vocabulary = 15, and Mechanics = 10. The total mark was 100 points. The writing rubric can be seen in Appendix A.

Reliability Test. Since the researchers were dealing with the human rater, it was essential and suggested by Neuendorf (2002) to ask at least another rater to rate the written assignment of medical students in two phases of the data gathering. According to Carmines and Zeller (1979), reliability has been defined as a measuring procedure that on repeated actions it produces the same results. Therefore, among all the university lecturers teaching English to medical students at Shiraz University of Medical Sciences, the researcher asked two of them to mark the papers for content, organization, word choice, sentence structure, grammar, and mechanics, as mentioned in the rubric. To make sure that the raters were in the same line with one another, the researcher had a two-hour session practice with the raters to clarify all the elements of the writing rubric. Then, 50 pre-test and 50 post-test assignments were given to the raters and they were asked to return the papers within one month. To prevent subjectivity in marking the assignments, neither the researchers nor the writing instructor of the two groups marked the papers.

Based on the scores of five components in each writing task, the researchers applied Pearson product-moment correlation to quantify the inter-rater reliability. For the components content, organization, word choice, sentence structure, grammar, and mechanics, the reliability of the total score was .678 followed by .681, .647, .743, .618, and .698, respectively. This reveals a high congruity between the two raters considering the process in which both scored the students' performance in writing and its components. Furthermore, the correlation coefficients were significant, demonstrating the consistency of both raters in scoring the participants' writing assignments.

Writing Video Contents Used in the Flipped Instruction. In this study, the researcher used professionally pre-recorded grammar lessons in the Virtual University of Medical Sciences. These lessons were uploaded in the Learning Management System known as LMS and could be accessed only by the students in flipped method group. To make sure that the videos cannot be reached to the students instructed by the traditional method, all videos were un-downloadable, so the students had to access their LMS any time they wanted to watch the videos. It is worth mentioning that the LMS website requires the students' ID number and password.

Procedure

Treatment Group. To explore the possible relationship between flipped instruction and students' writing performance, in the treatment group, the

researchers used teacher-made videos for each session in the course of the whole semester. In this regard, instead of describing everything, the writing instructor used flipped instruction model of teaching. For this study, the instructor asked the students to watch the assigned videos before attending a class. When attending the flipped classroom sessions, the students were required to do class exercises (such as editing paragraphs, rewriting paragraphs, etc.) provided by their writing instructor individually or in groups. In this way, the students themselves covered the writing contents at home, whereas they did the assignments in the classroom unlike what happens in traditional classes.

   Control Group. Students in this group received traditional instruction. This model of instruction consisted of teaching all the contents covered by the flipped group; however, these contents were taught to students in the classroom and they were asked to do the assignments at home. In the following sessions, the writing instructor delivered the answers to the participants in the classroom. The control group have a traditional writing class. That is, the participants also went to the class and worked on the similar issues like the experimental group. The only difference was that for the control group, the traditional model was utilized in writing instruction.

Data Analysis

   In this study, the researcher applied SPSS, version 20. To deal with both aims, "to investigate whether flipped instruction has any effect on writing self-efficacy" and "to investigate if it influences the students' writing performance", an independent sample t-test was applied, to show if the mean score of the participants in one situation significantly varies from that of the other situation.

Results

   Table one shows descriptive statistics including mean and standard deviation for pre-test and post-test scores obtained for writing performance and self-efficacy.

Table 1
Descriptive Statistics

Instruction		N	Mean	Std. Deviation	Std. Error Mean
Pretest for writing performance	traditional	25	48.31	6.57	1.40
	flipped	25	45.64	7.92	1.58
Posttest for writing performance	traditional	25	62.50	9.20	1.96
	flipped	25	95.28	3.84	.76
Pretest for self-efficacy	traditional	25	2.72	.70	.14
	flipped	25	2.64	.63	.12
Posttest for self-efficacy	traditional	22	2.86	.63	.13
	flipped	25	4.20	.47	.09

   As shown in Table 1, pre-test mean scores of writing self-efficacy in the traditionally instructed group (m = 2.72) are slightly higher than that of the flipped-instructed group (m = 2.64). To ensure if this difference is statistically significant, the investigators conducted an independent sample t-test. As depicted in Table 2, the Sig. value for writing self-efficacy between pre-test of both groups is greater than .05 (Sig. = .66); therefore, the researchers deduced that no significant difference is

between pre-tests of both traditional and flipped group based on their writing self-efficacy; consequently, the two groups were homogenous considering writing self-efficacy.

To answer the first research question - Does the type of instruction (Flipped versus Traditional) influence the writing self-efficacy? - as shown in Table 1, the post-test mean score of writing self-efficacy for traditional instruction (m = 2.86) was lower than that of flipped instruction (m = 4.2). It shows that flipped-instructed group outperformed the traditionally-instructed one. To ensure if this difference is statistically significant, we conducted independent samples t-test was between the posttest scores of both groups.

Table 2
Independent Samples t-Test

	F	t	df	Sig. (2-tailed)
Pretest writing performance	.002	1.251	45	.217
Posttest writing performance	16.672	-16.282	45	.000
Pretest self-efficacy	.121	.446	45	.657
Posttest self-efficacy	1.202	-8.169	45	.000

As shown in Table 2, Sig. level for post-test writing self-efficacy is .000, which is lower than .05. It reveals a statistically significant difference between post-test mean scores in both groups. Therefore, it can be concluded that flipped instruction improved the participants' writing self-efficacy in comparison with traditional instruction. As shown in Table 1, pre-test mean scores of writing performance in the traditionally-instructed group (m = 48.3) were greater than that of the flipped-instructed group (m = 45.6). The researchers conducted an independent sample t-test to ensure if this difference was statistically significant. As seen in Table 2, the Sig. value for writing performance between the pre-tests of both groups was greater than .05 (Sig. = .21); therefore, it can be inferred from the results that there was no significant difference between the pre-tests of both groups regarding their writing performance, and the two writing groups were homogenous.

To answer the second research question- Does the type of instruction (Flipped versus Traditional) influence the writing performance of selected students? - according to Table 1, the post-test mean score of writing performance for traditional instruction (m = 62.5) was greatly lower than that of flipped instruction (m = 95.2). It shows that participants in the flipped-instructed group performed better than those in the traditionally-instructed group. Yet, to ensure if this difference is statistically significant, we used the independent samples t-test between the post-test scores of both groups.

As shown in Table 2, the Sig. level of the post-test score for writing performance was .000 which is lower than .05. It indicates a statistically significant difference between the post-test mean scores in both groups. Therefore, it can be concluded that flipped instruction has a more positive influence in improving the writing performance in the flipped-instructed group compared to the traditionally-instructed one.

Findings and Discussions

This study focused on the writing skill as one out of 4 language skills due to the problems Iranian students face in second language writing. English writing is a problematic and challenging task for Iranian students (Kafipour et al., 2018); that is why the current study was an attempt to evaluate a possibly more effective approach -flipped instruction in improving the learners' writing skills.

The first research question in this study was: "Does the type of instruction (i.e. flipped vs. traditional) influence the EFL students' writing self-efficacy?" There was an attempt to find out if there is relevance between applying flipped instruction and the medical students' writing self-efficacy. The findings of this study confirmed this relationship. The study demonstrated that flipped instruction in comparison with traditional instruction improved the students' writing self-efficacy. This may be due to the reason that receiving materials before the class and studying it ubiquitously might have permitted the participants to control their own learning to have better learning outcomes. Moreover, as we have seen in this study, flipped instruction provided a new learning model in which learners were the receivers of different self-learning modes. These modes along with a convenient learning environment, which helped them conquer their writing problems can increase their self-efficacy in writing.

This study has revealed similar findings to the study by Hamdam et al. (2013). They asserted, in flipped instruction, "Learners can explore topics in greater depth and create better learning opportunities." (p. 5) Such learning context might create a strong attitude in attaining success, which in return can cause improved self-efficacy.

According to Raimes (1983), pictures and videos are fruitful aids for instructors. Pictures and videos help the students to put appropriate vocabularies and ideas in sentences (Asrifan, 2015; Kurniati, 2015; Styati, 2016). Several scholars have stated that applying pictures and videos enables the students to simultaneously use more than one sense, which are efficient in enhancing their writing skills (Asrifan, 2015; Kaur et al., 2017; Kurniati, 2015; Sesrica & Jismulatif, 2017; Styati, 2016; Wening, 2016). Therefore, variation can be involved in the classroom via different visuals aids, which could enhance the learners' focus on the issues. In the same vein, Mathew and Alidmat (2013) realized that audio-visual facilities make the issues more comprehensible; moreover, they believed that in this way the students could recall the materials for a longer time. Consequently, applying visual aid, in this case flipped mode of instruction, is attractive for promoting the students' achievement.

This study is also consistent with Samiee Zafarghandi (2018). According to the findings of his study, the mean scores of academic achievement and self-efficacy of participants who received the flip learning mode were significantly greater than those who used the traditional model; therefore, the flip learning model was efficient in the learners' self-efficacy and academic achievement.

This is also in line with the study conducted by Lee Su Ping et al. (2020). They found that in this mode of instruction, most students had positive experiences such as greater time preparation before class; increased practice, engagement, interaction, motivation; immediate feedback during class; and a higher level of self-efficacy after class.

The second research question in this study was: "Does the type of instruction (i.e. flipped vs. traditional) influence the EFL students' writing

performance?" The result of this study indicated that flipped instruction significantly improved the students' writing performance. The current results are in accordance with a study conducted in Japan by Leis et al. (2015), who flipped their English writing class to investigate the effectiveness of this mode of instruction. Overall, it has been proven that flipped instruction results in better improvement in the students' writing abilities.

This result is also consistent with the finding of Halwani (2017). He reported that multimedia could help the learners to improve reading and writing skills and interact in the classroom with no fear of having difficulties due to shyness.

This finding supports those obtained by Elian and Hamaidi (2018), who found that flipped instruction significantly improved the students' academic achievement. This result is also supported by another study conducted by Sirakaya and Ozdemir (2018) who came up with the point that flipped instruction enhanced the students' academic achievement, motivation, and retrieving. AlJaser (2017) also found out that female students in her study learned more productively using flipped instruction, while teaching was also interesting for instructors.

The results of the current study were also consistent with those of the study conducted by Zheng et al. (2018). They realized that the integrated pedagogical tool that mixes off-line and flipped classroom activities revealed superior learning outcomes and promoted the students' capabilities.

The findings of this research, considering the participants' writing performance, are also in the same line with the study done by Özkurkudis and Bümen (2019). They understood that the receivers of the flipped instructed group were significantly greater than the control group. They also found that using the flipped model was time-saving and easily accessible.

Based on the results, there were many elements involved in improving students' English writing performance in flipped instruction. The interactive environment, adjustability in both time and place, and diversity in learning sources are among these factors, which are based on Vygotsky's social constructivism (1978). The concept of learning, according to his learning theory, is the students' self-endeavor in creating new knowledge and meaning through social interaction. Flipped instruction provides the students with the essential adjustability to work together, and cooperate without time and place limitations. Consequently, this is highlighted by Kassem (2017); he maintained that "Paring intensive exposure to the learning material outside the classroom with the cooperative in-class activities contributed significantly to the students' high academic achievement." (p. 21)

The results of the present study are also in accordance with other investigations (Alkhoudary, 2019; Qader & Arslan, 2019; Özkurkudis & Bümen, 2019; Tuna, 2017). The students' progress in writing might be due to their knowledge about the writing aspects when they were working together in the flipped classes. In flipped mode of instruction, the students were so motivated for group discussion in which a friendly cooperation was promised (Al-Bahrani, 2020). This interaction can provide students with immediate scaffolding from other learners to get the desired aims in the writing task.

This agrees with the findings presented by Alghasab (2020), who examined the influence of flipping a writing classroom on the writing competencies and perceptions of EFL learners. The results indicated that the EFL students held positive ideas towards the flipped classroom. Further investigation revealed that flipping the writing classroom created a more useful learning environment, provided

flexible instruction, which enhanced the students' writing strategy use, and improved their motivation and interaction.

Based on Bandura's theory in 1977, self-efficacy can influence an individual's academic achievement. This is also similar to those of Shah et al. (2011). They came up with the point that there was a relationship between Malaysian participants' writing skills with their writing self-efficacy. The findings confirmed that this theory held true regarding the application of flipped instruction in writing.

Conclusion

Based on many studies, there is a significant relationship between the learners' self-efficacy beliefs and their writing performance (Amogne, 2008; Chen & Lin, 2009; Erkan & Saban, 2011; Shah et al., 2011; Woodrow, 2011). Accordingly, based on the current study, the researchers concluded that using flipped instruction improves the writing self-efficacy and writing performance of the participants in comparison with traditional instruction. One possible reason is that within the traditional classroom, pupils do not have access to their teacher's explanations and instructions directly at home because learners receive the information only in the classroom and they should do homework at home after the class.

The other thing to consider is that the definition of the term flipped classroom refers to an inversion of the place learning activities occur (Wilson, 2013). Therefore, in this mode of instruction learners have accessed digital materials and their teachers' instruction on different subjects at home. Through this model of instruction, according to Abeysekera and Dawson (2015), "motivation and self-efficacy to learn are improved when environments provide opportunities for students to (a) feel experienced in their capabilities, (b) feel a sense of connection to other pupils and instructors during learning, and (c) be autonomous in self-regulating and decision making." (p. 2)

Furthermore, considering the Bloom's taxonomy, outside the class the learners do the lower levels of cognitive work, and in the class, they focus more on the higher orders (Brame, 2013).

Therefore, based on the aforementioned reasons, concerning the context of the revision process, and the possibility of watching the teacher created instructing videos, in this study it was found that the experimental group who received flipped instruction outperformed in writing self-efficacy and writing performance in comparison with the traditionally-instructed group.

Pedagogical Implications

The results of the present research entail some noteworthy issues in the study of audiovisual instruction. From a pedagogical perspective, this study introduced useful insights for EFL teachers, writing researchers, and learners. The results of this study broaden the instructors' attitudes toward novel methods of teaching and they may use more suitable strategies to improve the students' learning, especially in this era when the world is affected by the Covid-19 pandemic and the importance of remote learning and teaching is highlighted. Accordingly, this mode of instruction is fruitful for EFL students in that they can distinguish which mode is more feasible in the process of learning.

Limitations of the Study

This research could not provide a large sample of participants to show the effect of audiovisual aids and different modes of instruction on the students' writing ability. Future researchers may be able to provide larger samples to offer a wider and more visible image of the effect of AVF plus different modes of instruction on the students' writing ability considering different variables.

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Appendix A
The Analytic Rubric (Jacobs et al., 1981)

Category	Score	Criteria
CONTENT	25-21	**EXCELLENT TO VERY GOOD:** knowledgeable • substantive •thorough development of thesis • relevant to assigned topic
	20-16	**GOOD TO AVERAGE:** some knowledge of subject • adequate range • limited development of thesis • mostly relevant to topic, but lacks detail
	15-11	**FAIR TO POOR:** limited knowledge of subject • little substance •inadequate development of topic
	10-0	**VERY POOR:** does not show knowledge of subject • non-substantive • non pertinent • OR not enough to evaluate
ORGANIZATION	25-21	**EXCELLENT TO VERY GOOD:** fluent expression • ideas clearly stated/ supported • succinct • well-organized • logical sequencing • cohesive
	20-16	**GOOD TO AVERAGE:** somewhat choppy • loosely organized but main ideas stand out • limited support • logical but incomplete sequencing
	15-11	**FAIR TO POOR:** non-fluent • ideas confused or disconnected • lacks logical sequencing and development
	10-0	**VERY POOR:** does not communicate • no organization • OR not enough to evaluate
LANGUAGE USE	25-21	**EXCELLENT TO VERY GOOD:** effective complex constructions • few errors of agreement, tense, number, word order/function, article, pronouns, prepositions
	20-16	**GOOD TO AVERAGE:** effective but simple constructions • minor problems in complex constructions • several errors of agreement, tense, number, word order/function, article, pronouns, prepositions but meaning seldom obscured
	15-11	**FAIR TO POOR:** major problems in simple/ complex constructions • frequent errors of negation, tense, number, word order/function, article, pronouns, prepositions and/ or fragments, run-ons, deletions • meaning confused or obscured
	10-0	**VERY POOR:** virtually no mastery of sentence construction rules • dominated by errors • does not communicate • OR not enough to evaluate
VOCABULARY	15-13	**EXCELLENT TO VERY GOOD:** sophisticated range •effective word/idiom choice and usage • word for mastery • appropriate register
	12-10	**GOOD TO AVERAGE:** adequate range • occasional errors of effective word/idiom form, choice, usage but meaning not obscured
	9-7	**FAIR TO POOR:** limited range • frequent errors of effective word/idiom form, choice, usage • meaning confused or obscured
	6-0	**VERY POOR:** essentially translation • little knowledge of English vocabulary, idioms, word form • OR not enough to evaluate
MECHANICS	10	**EXCELLENT TO VERY GOOD:** demonstrates mastery of conventions • few errors of spelling, punctuation, capitalization, paragraphing
	9-8	**GOOD TO AVERAGE:** occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured
	7-6	**FAIR TO POOR:** frequent errors of spelling, punctuation, capitalization, paragraphing • poor handwriting • meaning confused or obscured
	5-0	**VERY POOR:** no mastery of conventions • dominated by errors of spelling, punctuation, capitalization, paragraphing • handwriting illegible • OR not enough to evaluate