



Flipping Blended Writing Instruction: Iranian EFL Learners' Learning of Linking Words in Focus

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Abstract: Linking words, an essential tool in creating a coherent relationship between units and paragraphs in written texts, was one of several aspects of the English language that was challenging for many foreign language learners in the writing process. The current study investigated the impacts of flipped blended instruction on Iranian EFL learners' use of English-linking words in writing. To this end, 40 EFL learners from one institute were selected for this study. To collect the data, an Oxford Placement Test (OPT) was used to ensure the homogeneity of the participants. They were randomly divided into the flipped blended (n=20) and conventional (n=20) groups. Then, a pre-test was given to both groups of learners to examine their ability in using linking words. Moreover, the flipped blended group received instruction in an online context, while the conventional group received instruction in a traditional learning context. After the treatment, a post-test was given to both the flipped blended and conventional groups. The results of the independent sample t-test demonstrated that there was a statistically significant difference between flipped blended and conventional groups in terms of choosing linking words. It was observed that the flipped blended method had a significant effect on improving EFL learners' linking words knowledge. The study discusses the implications of the finding for EFL learners and teachers.

Keywords: Writing, Technology, Linking words, Flipped classroom, Blended learning

Introduction

Writing can be defined as an important productive skill that learners need to convey information (Cahyono, 2009), express opinions, and develop thinking ability (Klimova et al., 2013). This skill consists of various steps and stages that are needed to produce, organize, and transmit ideas to be clear to the reader (Richards & Renandya, 2002). When learners, especially those whose second or foreign language is English, decided to use writing skills, these steps need to be accomplished with more focus and precision than when English is the first language (Nasser, 2016). Moreover, as Lee (2003) pointed out, the emphasis on the good writing process in the English as a Foreign Language (EFL) context can be a major concern for most instructors, textbook authors, and syllabus designers.

Supporting and assisting learners in improving their stages of writing skills continues to be challenging for teachers; but, the optimal use of technology in teaching may help teachers to better develop these

skills. Recently, education with the assistance of computers and technologies has attracted the attention of many instructors and researchers. Recent studies (e.g., [Alsalihi et al., 2021](#); [Roy, 2019](#); [Şentürk, 2021](#)) pointed to a set of up-to-date technologies in language teaching and learning capable of generating authentic and attractive environments for learners, providing easy access to various sources of information for learning languages, establishing different social communities with many language users, and assisting learners to improve the use of basic foreign language skills. Some researchers (e.g., [Ally, 2004](#); [Bataineh & Baniabdelrahman, 2006](#); [Fisher et al., 2006](#); [Harris et al., 2009](#)) have argued that technology has attained an indispensable role in teaching and learning various skills by offering an innovative world and new chances and opportunities for more focus on learning.

The use of technology, especially web-based technology, in teaching and learning writing has become a major method of education ([Turmudi, 2020](#)). According to [Lam \(2015\)](#), the use of technology in education, through creating flexibility in time and place in the learning, allows students to be self-regulated and autonomous in the writing process. [Nurawalia \(2021\)](#) argued that computer-assisted language learning (CALL), by providing easy access to feedback, helps EFL learners to correct mistakes or errors and develop writing proficiency. Moreover, students who used technology are more motivated to write better than students who applied conventional methods in the writing process.

Given this rapid advancement, it is getting essential for instructors to be familiar with technology in their careers. They are encouraged to increase their awareness and ability to use technology in various aspects of education. They are supposed to produce fast changes in their syllabuses to update the learning materials and improve the teaching process. However, integrating technology with classroom learning may be regarded as a challenging undertaking ([Erben et al., 2008](#)). Among others, an important challenge for teachers is to utilize technology to provide a “meaningful” and dynamic environment for students to encourage them in the learning process ([Bersin, 2004](#)).

It is also argued that new technologies should not be used alone but ought to be incorporated into a strong pedagogical approach and integrated with other appropriate teaching methods ([Kirkwood & Price, 2005](#)). In other words, it is suggested that activities that must be accomplished using modern technologies needed to be combined ([Biggs & Tang, 2011](#)) with other methods. Blended learning is described as an approach in an educational environment that combines traditional, online, and face-to-face methods ([Cleveland-Innes & Wilton, 2018](#)). Over the recent decades, blended learning has been studied to see how technological affordances can be integrated with common educational instructions to elevate educational quality. Several researchers who have studied blended learning highlighted that “blended learning is a transformational force in education” ([Dziuban et al., 2013](#)).

Although many language teachers pay attention to the application of technology in foreign language teaching ([Ekmekci, 2017](#); [Lin & Hwang, 2019](#)), many learners are not able to use technology to solve transitional problems and improve their writing process. Moreover, most learners are unfamiliar with computer software, online learning, and Google apps (Mulyono & [Solihati, 2017](#)) to provide a well-structured paragraph and correct mistakes in the writing process. Thus, they often have difficulties in writing skills.

One of the problems that learners often face in creating text cohesion is that they are unable to create texts to indicate changing views, emphasize contradictions, develop an idea, and draw conclusions in the writing process. Some learners memorize several linking words without any knowledge about their usage in the sentences. They may not even be able to decide on the position (first, center, or last) of transitional words in sentences and punctuate them correctly which often leads to misunderstanding or confusion among readers.

Despite recent attention to flipped learning, there is not much empirical research on the effectiveness of this approach on students learning ([Chen et al., 2014](#)), especially on the use of transition words. Thus, there is an essential need to introduce novelties and alternatives in teaching linking words to EFL learners. Certainly, one way to solve problems in the writing class can be the correct and appropriate use of technology ([Seibert Hanson & Brown, 2020](#)) in the teaching and learning procedures on how to use linking words. Therefore, the main aim of this study is to investigate the effect of the flipped blended method and technology on the use of linking words in the writing process of intermediate EFL learners. In particular, the current study aims to address the following research question:

Is there any significant difference between the flipped blended and conventional instructional methods in affecting Iranian EFL learners' ability to use linking words in English writing?

Literature Review

Writing Skill

It can be argued that the ability to create written texts with relevant and regular sentences has an important impact on the progress of work and education of people in the community ([Geiser & Studley, 2002](#); [Powell, 2009](#)). [Crossley et al. \(2014\)](#) argued that high-quality writing could not be summed up in a limited number of predetermined characteristics. Instead, successful writing should have multiple indexes. Although different writers may use different styles in their writing, what they have in common is that in addition to focusing on accurate text writing, which is the main purpose of any writing text, it is better to consider factors such as text cohesion, sentence relevance, and the choice of conjunctions in their writing process ([He, 2020](#)).

In foreign language contexts, writing is a significant skill to transfer written messages, but according to [Wu and Zhang \(2017\)](#), mastery of writing is not only challenging for foreign language learners but also difficult for native speakers. [Alsamadani \(2010\)](#) also pointed out that writing is a very difficult process because it involves different skills of content expression, writing support, topic development, content review, and error correction. [Sulasti \(2003\)](#) also pointed out that writing skill is a difficult skill because it encompasses the area of vocabulary, grammar, structure, and punctuation.

Learning to Use Linking Words

Experienced writers always have an important goal in their writing and that is to convey their ideas to the readers in the form of a suitable structure ([Knapp & Watkins, 2005](#)). Besides, they need to consider the cohesion and coherence of the text to develop their writing organization. Some studies (e.g., [Sanders & Noordman, 2000](#)) reported that the appropriate use of connectors enhances reading speed and increases comprehension of the text. Besides, several other studies, for example, ([Kaakinen et al., 2011](#)), examined the role of transitions as an important facilitator in understanding the purpose of different texts. They compared more cohesive texts with less cohesive texts and reported that written texts with higher cohesion convey information better to the reader and help them to recall the text more easily. Also, it can be noted that mere continuity of sentences does not indicate the coherence of the text, but the linking words are more effective in creating coherence of the text if they are used in their appropriate parts ([Zufferey et al., 2015](#)).

[Halliday and Hasan \(1976\)](#) emphasized that coherence is an important feature that makes a structured and orderly text completely distinct from a set of irrelevant sentences. They analyzed four main types of cohesive devices, including reference, replacement, ellipse, and conjunction, which create cohesion in written texts. The results indicated that among these four groups, the conjunctions are the most complex group with a large number of the section that cannot even be specified. Moreover, [Crossley et al. \(2016\)](#) suggested a recent classification of cohesion that includes local (sentence-level cohesion), global (paragraph cohesion), and text cohesion (whole-text cohesion). Thus, the use of appropriate cohesive devices in written tasks seems to be one of the most challenging items for many foreign and second language learners.

Some researchers have compared the use of transitional words in the writings of first and second/foreign English language learners. The findings of this comparison generally indicated the mastery of second-language writers in the use of linking words. For example, [Hinkel \(2011\)](#) examined the writing structure of first- and second/foreign language writers with similar skill levels in using the same type of transition words to show the degree of similarities or differences in written criteria in languages. The results of this comparison showed that second-language writers performed weaker than first-language writers in

creating text cohesion and using linking words because they often overuse conjunctions to eliminate the weakness of lexical and vocabulary inconsistency in the writing process ([Hinkel, 2011](#)).

Many previous studies ([Crismore et al., 1993](#); [Longo, 1994](#)) have generally emphasized textual cohesion as an important criterion in assessing students' writing, however, some recent studies ([McNamara et al., 2015](#); [McNamara et al., 2013](#)) reported that students with a higher writing proficiency used fewer transition words than students with lower writing proficiency. After comparing students' criteria for writing quality with teachers' criteria for evaluating good writing, [McNamara et al. \(2015\)](#) argued that students often use a large number of semantic connections to have high-quality writing, while teachers have other criteria for measuring sentence accuracy. They concluded that the overuse of conjunctions in students' writing may be related to teachers' emphasis on maintaining connections among ideas in the writing process. Students are unaware that textual cohesion should be created in deep semantic layers rather than the overuse of conjunctions.

Although writers use various strategies in their writing tasks, it often seems that they are not able to create cohesion in the sentences and use the transition words properly in the written text. For instance, [Mahendra and Dewi \(2017\)](#) investigated the use of transition signals in the academic writing of EFL learners. The results revealed that the linking word "but" was the most common difficult transition word for EFL learners. They also argued that the main problems of the learners were the dual use of the transition signals in the written texts. Also, it can be pointed out that the most problematic common errors among Iranian EFL students were the incorrect use of references, lexical errors, and conjunctive devices ([Sadighi & Heydari, 2012](#)). In a similar study, [Al Mughrabi \(2017\)](#) reported that the most problematic transition words among Arab EFL learners were additive (22%), contradiction (20%), and chronology (8%) respectively.

To solve the problem of using conjunctions, [Fukushima and Sato \(1989\)](#) highlighted the need to teach conjunctions to EFL students. Moreover, they evaluated the effect of direct instruction on learning connecting words in EFL / ESL learners' written tasks. It has been shown that using appropriate teaching methods to familiarize intermediate learners with transition words helps them to express their ideas more logically and to write more coherent sentences.

[Spycher \(2007\)](#) also reported that even students with low English proficiency can make logical connections between sentences by using newly learned conjunctions through useful instructions so that the reader can easily understand their written text.

Advances in technology and its integration with the learning and teaching process assist educators to use a variety of technology models. CALL (Computer-Assisted Language Learning), MALL (Mobile Assisted Language Learning), and many other new types of online learning are being used in educational

environments. One of the approaches combined with technology that has recently been used in education to provide active learning for students is called blended learning ([Rahim, 2019](#)). [Zhang and Zhu \(2018\)](#) pointed out that a blended learning approach facilitates teaching and learning context by providing a suitable environment that is changeable, dynamic, communicative, motivating, and attractive for teachers and students. In the blended method, learning is not limited to the classroom context but can take place outside of such an environment that may allow the learner to practice and study further, leading to better learning outcomes ([Bergmann & Sams, 2012](#); [Burns, 2013](#); [Weimer, 2013](#)).

Flipped Blended Learning

Two main reasons that educational technologies increase learners' success are that, firstly, technologies can engage and attract the learners' attention to learning various contents, and secondly learners are more motivated to participate in educational activities ([Billings & Mathison, 2012](#)). [Oliver et al. \(2007\)](#) stated that technology integration in education helps learners to become skilled technology users, researchers, analysts, evaluators, problem solvers, decision-makers, senders, and collaborators. [Dawson et al. \(2008\)](#) argued that the use of technology in education can provide a learner-centered learning environment rather than a teacher-centered one.

Most recent studies (e.g., [Soltanpour & Valizadeh, 2018](#)) have tried to focus on the effect of new instructional methods in educational contexts, such as the use of technology and flipped blended strategies on the EFL learners' writing skills. What is not yet clear is the impact of flipped blended method and the use of technology on learning linking words. Thus, the present study attempted to examine the difference between the flipped blended and conventional instructional methods in affecting Iranian EFL learners' ability to use linking words in English writing.

Material and Methods

Participants: The participants in this research were seventy EFL learners in the fall semester of the 2019-2020 academic year at the Aria Institute in Bushehr. There were 30 females and 40 males with an age range of 15 to 16. The Oxford Placement Test ([Test, 2001](#)) was applied to ensure the homogeneity of participants' skill levels. Based on the test scores results, forty intermediate EFL learners with similar proficiency levels (40 out of 70 cases) were selected to take part in the study. Then, they were randomly assigned into two groups; one of these groups was determined as the flipped blended group (n=20), and the other one was placed as the conventional group (n=20). The flipped blended and conventional groups were similar in their English levels as well as their other variables such as age, and their English learning experiences. In the flipped blended group, the materials included the use of teacher-provided writing samples as well as the use of technology tools in the learning classroom. In

the conventional group, materials consisted of tasks, techniques, and exercises designed by the teacher for the intermediate level of learners.

Instruments

Oxford Placement Test (OPT): The first instrument used in the current study was the Oxford Placement Test to homogenize the proficiency level of participants. This test included 60 questions in four sections that focused on assessing learners listening, grammar, vocabulary, and reading comprehension skills. The listening test included 10 multiple-choice questions that lasted about 15 minutes. In this test, learners needed to listen carefully to short conversations and choose the correct choice from the four options. The grammar test consisted of 20 multiple-choice questions. The completion time of this grammar test was about 20 minutes. In addition, the vocabulary test was 30 multiple-choice questions that students had to answer in 30 minutes. The comprehension test also included three short texts with 10 multiple-choice questions. The time to answer the questions in this section was about 20 minutes. The reliability of OPT through Cronbach's alpha was 0.82.

Linking Words Test: Another instrument in this study was the linking words tests that were administrated for pre and post-testing. The test was designed by the researchers by selecting different linking word items from standardized books such as English Grammar books and TOEFL. The test included 40 multiple-choice questions used in the two groups. The linking word items included transition words such as agreement, addition, result, effect, coordination, and so on. These tests were similar in content and type of linking words for both groups that were expected to be used in the tests. The test score was between 0-40 and each correct answer was equivalent to one score, while for each incorrect answer, a score of zero was considered. The pre-test was employed to assess the learners' ability in using linking words and understanding their problems. After the pre-test, one group was taught through the flipped blended method, and the other group was trained by the conventional method. Then a post-test was designed to show the effect of blended teaching on learning linking words. The validity of the linking words test was assessed by the two expert judgments. Thus, these two experts, with more than 14 years of English language teaching experience, evaluated the appropriateness of this test. The reliability of the tests was checked to ensure the consistency of the whole tests of the linking words. Cronbach's alpha coefficient was 0.84 and 0.85 in the pre and post-tests which were acceptable values.

Ethical Considerations: Before the start of this study, the learners and their parents were asked to declare their informed consent by signing a permission form to participate in the current study. The participants were assured that all their writings, conversations, and ideas would be pseudonymous and their identities are kept encrypted in the classroom notebook. Also, the participants were aware that this

study is conducted to inform teachers and learners about the use of technology in solving conjunctions problems in the writing process.

Data Collection Procedure:

At the beginning of the semester, a pre-test for each group was conducted to determine the writing level of the EFL learners. Then, the pre-tests of both groups were corrected, and the results were recorded. After taking the pretests, the instructional methods and their objectives were explained. In the next stage, the writing class according to the lesson plan began in two conventional and flipped blended groups. Therefore, two types of instructions were used in the two groups. After treatment, at the end of the semester, a post-test was taken from the flipped blended and conventional English writing groups. The post-test which was similar to the pre-test used to evaluate learners' ability in writing and using linking words after they were trained with flipped blended and conventional instructions. Finally, the results of the pre-and post-tests were compared in the flipped blended and conventional groups.

Data Analysis: To analyze the data in this study, a quantitative method was employed to compare the outcomes of the pre-and post-tests in the flipped blended and conventional groups. The Statistical Package for Social Sciences (SPSS) Version 22.0 software was selected for quantitative data analysis. Finally, independent samples *t*-test was also employed to determine the significant difference between the means of pre-and post-tests in the flipped blended and conventional groups

Results

Before starting the flipped and conventional writing class, it was needed to ensure that there was no significant difference in the writing proficiency of the two groups of EFL learners. Thus, the same pre-tests were used for both groups of learners. After using two types of instructional methods, the flipped and conventional instructions, a test of linking words were given to the learners as a post-test of the study. The first comparison was performed by comparing the means of the conventional and flipped groups before and after treatment to find out whether the learners in these groups progressed during this learning period. Table 1 provides descriptive statistics of the flipped blended and conventional groups in pre-and post-test linking words scores.

Table 1. Results of the Pre and Post-tests

	Test	N	Mean	Std. Deviation	Std. Error Mean
Pre-test	Flipped	20	28.60	5.05	.68
	Conventional	20	27.40	4.70	.86
Post-test	Flipped	20	43.93	5.63	.89
	Conventional	20	40.20	4.31	.993

As Table 1 shows, the mean score of EFL learners in the pre-test was 28.60 and 27.40 respectively, which were almost the same, although the mean score of the flipped group was slightly higher than the mean score of the conventional group. Further analysis revealed that standard deviations of the flipped blended and conventional groups in the pre-test were high, but not much different, showing that in both groups' variance was similar, and scores were widely spread in both groups. Moreover, outcomes of the post-test indicated that the mean score of the flipped blended (43.93) was larger than conventional groups (40.20).

To examine whether the differences between the two mean scores were statistically significant, comparisons between the two groups were made using an independent sample t-test. The results obtained from the pre-test analysis are shown in Table 2.

Table2. Results of the Independent Samples t-test of Pre-test of the Flipped-Blended and Conventional Groups

Groups	M	SD	T value	DF	p
Flipped	28.60	4.31	-.562	38	0.41
Conventional	27.40	1.53			

It can be seen from the data in Table 2 that there was not a statistically significant difference in the pretest scores for flipped blended ($M=28.60$, $SD=4.31$) and conventional groups ($M=27.40$, $SD=1.53$), $t(38)=-.562$, $p=0.41$. This was concluded because the results indicated that the significance level was $0.41(p>.05)$. Thus, this means that learners of the two groups were at the same level of proficiency in the pretest.

To see whether the differences between the post-testes in flipped blended and conventional groups are significant, an independent samples t -test was employed. The findings are indicated in Table 3.

Table3. Results of the Independent Samples t-test of Post-test of the Flipped-Blended and Conventional Groups

Groups	M	SD	T value	DF	p
Flipped	44.93	4.21	3.04	38	.028
Conventional	40.20	5.63			

Table 3 presents that the significant level was .028 ($p<.05$). This result shows that the difference between the flipped blended ($M=44.93$, $SD=4.21$) and conventional groups ($M=40.20$, $SD=5.63$), on the linking words post-tests was statistically significant. This inferred that the use of technology and flipped blended instruction greatly assisted learners to choose appropriate linking words in the writing process.

Discussion

The findings of the current study demonstrated that there was a significant difference between linking words scores on the post-test in the flipped blended and conventional instruction. In other words, the present findings demonstrated that learners who thought through flipped blended instruction had a greater performance on the post-test than those who received conventional instruction. Using technology and flipped blended instruction improved language learners' ability to use linking words more effectively.

The results obtained from this study confirmed the studies of [Ekmekci \(2017\)](#), [Ahmed \(2016\)](#), and [\(Qader & Yalcin Arslan, 2019\)](#), which compared the writing performance of the flipped and traditional groups. They suggested that flipped learning not only provides educational opportunities to learn writing skills but also helps them to engage in collaborative learning activities. The results also supported the results obtained by [Abedi et al. \(2019\)](#) which indicated that flipped instruction can significantly improve the writing skills of upper-intermediate learners of EFL learners. They stated that students were motivated and independent in the flipped classroom. Consequently, they concluded that flipped method and the application of technology are useful in learning writing skills.

[Nourinezhad et al. \(2022\)](#) also suggested that flipped method had a positive impact on the self-efficiency and writing performance of Iranian EFL students. The quantitative results of pre and post-tests between the two control and experimental groups showed that there was a considerable difference in the learners' post-test scores. On the other hand, the findings revealed that the group who received flipped instruction had better writing ability in the post-test than the traditional group. Similarly, the findings were in line with [Dousti et al. \(2021\)](#) who investigate the impact of Web Quest-based instruction on the achievements of Iranian English language learners at the undergraduate level in completing writing tasks and their sub-skills. The results showed that the use of technology significantly improved the writing skills of English language learners and helped them to organize, expand and focus on their writing sub-skills.

The results of this study can be compared to the findings of [Hassanein \(2021\)](#) who reported that the students who used the WebQuest strategy had statistically higher mean scores on the post-test than those groups who received the conventional method. He concluded that the use of the WebQuest strategy had a positive effect on the development of students' writing skills. The findings of this study also corroborated the ideas of [Serin \(2019\)](#), who suggested that the use of Web 2.0 applications in the flipped method helped learners to practice and repeat materials before class. It also allowed learners to be more active in the learning process and increase their motivation for learning materials.

One important reason for the general improvements in the learners' writing in using linking words in this study is that flipped blended learning provided an appropriate platform for discussion and solving

problems through the WhatsApp group. In other words, access to the WhatsApp online learning environment in the flipped blended learning in this study helped learners to share their knowledge, exchange their ideas, and improve their educational process related to the appropriate choice of linking words in a way that was impossible in the conventional group. Learners in the conventional group did not have access to such facilities and tried to solve their problems in the classroom. This finding was in agreement with [Martins and Gouveia \(2018\)](#) findings which reported that flipped classrooms using WhatsApp aid were very helpful for students to ask their questions and receive answers from both the teacher and their classmates. They reported that it increased the interaction between the teacher and students which help them to share their experiences in the learning process.

Another important reason for the improvement of learners' writing was that access to the AGENDA web and the Google site helped them to perform various exercises and tests on linking words. These sites, especially the first one, provided complete explanations and many linking word exercises before class time. Attending classes with prior preparation provides more opportunities for a lot of pair and group activities throughout the class, and the learners interact more with their classmates to do a specific task. These collaborative activities provided more opportunities for the learners to ask their questions, solve their problems, and receive answers related to the use of linking words. In the conventional group, since there was not enough time for group activities inside the classroom, learners often did their work individually. Also, it was a lecture-based writing group, and most of the class time was devoted to direct instruction about linking words so not much time was left for learners' questions.

Conclusion

The purpose of the current study was to show the impact of teaching linking words using technology (flipped blended method) to improve the writing of EFL learners and solve their transition problems in the writing class. Besides, this study compared the performance of learners in using linking words in conventional and flipped blended groups. The results of this investigation showed that the performance of the EFL learners on using the linking words in the flipped blended group was greater than learners in the conventional group.

The results of this study indicated that the use of educational technology, such as those used in the flipped blended group, is helpful for the improvement of the writing process. Kalanda (2005) argued that innovation in teaching devices supports learners in the learning process. When learners used innovations in their learning process, it make critical changes in their writing tasks.

Taken together, the findings of this study suggested a role for technology in promoting appropriate choice of linking words. Accordingly, teachers might use such technology and material for language

learning in the areas of listening, speaking, reading, and writing. The study collaborates with the ideas of [Khodabandeh and Tharirian \(2020\)](#), who suggested that foreign language institutions and syllabus designers can design lesson plans in which blended and flipped teaching strategies are an important part of their instructional syllabus, which led to beneficial outcomes.

The present study had some limitations. First, this study just focused on examining linking words in EFL learners' writing, so the results could not be generalized beyond this aspect of writing. Moreover, this study was limited to a small sample size which could not show a clear pattern of learners' progress in the flipped blended and conventional groups. It is suggested that further research with larger sample sizes needs to be conducted to investigate the impact of the flipped blended method on linking word learning of EFL learners.

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