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The Impact of Blended Learning on Speaking Ability and Engagement

Elahe Ehsanifard
University of Tehran

Zargham Ghapanchi
Ferdowsi University of Mashhad

Mohammad Afsharrad
Ferdowsi University of Mashhad

Introduction

Over the past decades, pedagogy has focused on student's engagement in education. Before the introduction of technology into educational settings the most important criteria to measure engagement was physical attendance in class (Douglas & Alemanne, 2007). With the advancement of technology and the development of blended learning, wider definitions were proposed for engagement (Bulger, Mayer, Almeroth, & Blau, 2008). To Coates (2007, p. 122), whose definition is an aggregation of other definitions, engagement "is seen to comprise active and collaborative learning, participation in challenging academic activities, formative communication with academic staff, involvement in enriching educational experiences, and feeling legitimated and supported by university learning communities."

Chickering and Gamson (1987) suggested a framework with seven principles to engage students. Engagement occurs when the instruction a) encourages contact between students and faculty, b) develops reciprocity and cooperation among students, c) encourages active learning, d) gives prompt feedback, e) emphasizes time on task, f) communicates high expectations, and g) respects diverse talents and learning styles. The level of student engagement is a key component in the development of learning. Also, interaction with peers, teachers, and staff is an integral part of both Coates's (2007) definition of engagement and Chickering and Gamson's (1987) framework for engagement.

Instruction through blended learning tends to optimize both interaction and engagement. Blended approaches enhance learner engagement in a collaborative environment where learners are provided with new opportunities to interact with their peers, teachers, and content inside and outside the classroom. Blended learning has several advantages over the traditional classroom. For example, it increases oral production, provides learners of different personality types with opportunities to speak, and helps learners learn at their own pace (Hojnacki, 2015). Considering the importance of both engagement and interaction, this study is an attempt to investigate blended learning and its impact on learner engagement as well as interaction realized in the form of oral production.

Speaking is a key component of a broad sociocultural theory of L2 learning (Lantolf & Beckett, 2009). From the viewpoint of sociocultural theory of second language learning, language is a product of

interaction and develops in the social context where it is used. The context of language learning provided by blended learning is a combination of everyday face-to-face contexts and virtual contexts. Horn and Staker (2011, p. 3) define blended learning as "any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace". According to Tomlinson and Whittaker (2013, p. 12), "blended learning is the term most commonly used to refer to any combination of face-to-face teaching with computer technology (online and offline activities/materials)".

Though blended learning was first used as a cost-effective way to enable workers to both work and study from a distance (Sharma, 2010), nowadays it is not considered as a replacement for the conventional classroom, but rather as a supplement which provides teachers and students with more opportunities to communicate and share information.

Many studies have focused on blended learning and its effect on learner engagement (e.g., Cornelius, Calder, & Mtika, 2019; Junco, Heiberger, & Loken, 2011; McGuinness & Fulton, 2019; Neumann & Hood, 2009). In a study by Neumann and Hood (2009) wiki was used as part of a blended learning approach to promote collaborative learning among students in a first-year university class. The experimental group used wiki and the control group used reposts to communicate with their group members. Their results showed that the experimental group had more cognitive engagement with content. In another study, Junco, Heiberger, and Loken (2011) studied how social media could bring about learner engagement. Their semester-long study was focused on the use of Twitter for blogging. They found that blended learning gave learners a more participatory role and improved their grade point averages.

Blended learning also plays a facilitative role in learning language skills and sub-skills. Banditvilai (2016), for example, attempted to improve learners' language skills through blended learning. The results of the study indicated that online learning can positively affect learning of all four language skills. Young (2016) hypothesized that blended learning could also affect learning language sub-skills. To test this, he designed a between-subjects study and gauged the effect of blended learning on learning vocabulary. Blogs, wikis, and videos were used in the experimental group, whereas the control group followed the traditional language class methods. The results indicated that blended learning could greatly affect learning vocabulary.

The purpose of the current study is twofold. It examines the effects of blended learning on speaking ability and learner engagement. The effects of blended learning have been investigated across various disciplines as blended learning is a teaching and learning theory proposed in education in general and not specific to language education. In the area of language teaching more studies have dealt with the effects of blended learning on student writing performance (e.g., Junco, Heiberger, & Loken, 2011). Hence, there is a need for studies to find out how promising the effects of blended learning on oral communication of language learners are.

Engagement with teaching and learning processes is so crucial in language learning that researchers have accorded focus to this issue (e.g., Hulstjin & Laufer, 2001). In the Iranian EFL context, this issue has been investigated in a number of studies (e.g., Alvandi, Mehrdad, & Karimi, 2015; Mohamadi, 2017). However, research dealing with the effects of blended learning on language learners' engagement in oral communication (especially in such underrepresented contexts like Iran) is scant. This is important because oral proficiency constitutes a major part in the way of learning a second or foreign language and is the overall aim of attending language classes in Iran (Koosha & Yakhabi, 2013).

To achieve the purposes of the study the following research questions will be answered:

Q1. Does blended learning have any significant effect on Iranian EFL learners' speaking proficiency?
Q2. Does blended learning have any significant effect on Iranian EFL learners' engagement?

Method

Participants

First, the Oxford Placement Test (OPT) was administered to 100 language learners studying at the intermediate level in Kordasti Language Center in Tehran, Iran. Ninety students met the criteria (were at the intermediate level), out of whom 60 were randomly selected for the study. Then they were randomly assigned to two groups and the groups were randomly assigned to control and experimental. The age range of the participants was 24-30. The control group consisted of 23 females and seven males and the experimental group consisted of 22 females and eight males.

Instruments

Oxford Placement Test (OPT)

The OPT (Allen, 1992) was used to measure the participants' overall language ability. This test contains 60 questions. There are five questions related to knowledge of different signs and notices used to indicate particular meaning, five cloze passages (25 questions), 20 multiple-choice grammar questions, and 10 multiple-choice vocabulary questions. The results revealed that most learners were at the intermediate level.

Student Course Engagement Questionnaire (SCEQ)

The SCEQ (Handelsman, Briggs, Sullivan, & Towler, 2005) measures engagement in terms of performance engagement, interaction/participation engagement, and emotional engagement. In fact, by covering behavioral, cognitive, and affective components of engagement, the SCEQ explores every aspect of engagement with regard to students' course involvement (Goldspink & Foster, 2013; Larid, Smallwood, Niskode-Dosset, & Garver, 2009). As pointed out by Handelsman et al. (2005), the SCEQ gives a more thorough insight into student engagement. These justifications were the deciding factor on why the researchers of this study employed the SCEQ to gauge student engagement.

IELTS Speaking Exam (part 2)

One randomly chosen task from an IELTS Practice Exam (speaking section) was used as both a pretest and posttest. The learners were asked to describe a teacher who influenced them in their education by providing information about where they met the teacher(s), what subject they taught, and what was special about them. They were also asked to explain why those teacher(s) influenced them so much.

The IELTS Speaking Exam (part 2) is a three-minute speaking activity which starts by giving the participants a written topic and asking them to think about the topic for one minute. The participants are then asked to talk about the topic for two minutes. These time limits were followed in the data collection process for both the pretest and posttest.

Procedure

The study began by obtaining the consent of both participants and school authorities. The intervention lasted for 10 sessions of one and a half hours over a 10-week period. Before the treatment, both groups filled in the SCEQ; the participants were provided with explanations when they had comprehension problems.

The difference between the experimental and control groups was using the Nicenet Platform with the former and conventional class settings with the latter. Nicenet provides the teacher with the ability to share links and documents easily under topic headings that are mentioned; the learners can also share links and documents if the right is granted by the teacher. Moreover, the conferencing facility on Nicenet allows discussion.

In this study, first, the teacher registered with Nicenet and asked the participants in the experimental group to register and join the class on www.Nicenet.org. The teacher created a conference topic and sent the content to the learners on Nicenet. In the virtual classroom the teacher activated the participant's schema through a series of questions regarding the theme. Additionally, authentic texts such as TV advertisements, music, videos, political texts and images served as topics of conversation around relevant themes. Next, the recording of the conversation was presented to the participants. They were asked to keep track of the conversation theme and general facts while listening.

After that, the learners were asked general questions regarding the conversation. The peers were required to provide answers if one's reply was incorrect. Next, the participants were asked to listen again. This time they were asked detailed questions about the conversation. The teacher elaborated on the conversation after these steps so that the participants could use their decoding ability to analyze the conversation. At this level, necessary vocabulary and structures were taught explicitly and also through giving examples. Finally, the participants worked in pairs by sharing documents and links to each other and practicing the conversation. There was a discussion based on the lesson's theme at the end of session in a personalized manner. The conferencing feature of Nicenet was employed for a variety of activities at this stage. A number of students asked one person multiple questions which was in the form of a role play. The teacher participated in this activity to give feedback or help keep the conversations going. The materials and conversations used for the control group were the same as those presented to the experimental group. The procedure was also the same.

After the end of the treatment the participants of both classes took the speaking posttest (the conversations of pretests and posttests of both classes were recorded for the purpose of analysis and scoring). Finally, the SCEQ was re-administered to both groups.

Data Analysis

The level descriptors offered by the Common European Framework of References (CEFR) were used to determine the participants' levels and then corresponding IELTS scores were considered as speaking proficiency scores. Two raters experienced in assessing speaking skills scored the pretests and posttests. These raters had a briefing session and discussed the scoring procedure.

For statistical analyses, Statistical Package for Social Sciences (SPSS) version 24 was used. Two independent samples *t*-tests were used to compare performances of the groups in speaking before and after the intervention. Also, two other independent samples *t*-tests were employed to find the differences between the engagement of the groups before and after the treatment.

Results

Descriptive statistics of both groups were computed (Tables 1 and 2).

TABLE 1
Descriptive Statistics for Speaking Pretest and Posttest

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Blended	30	5.13	.75	.14
	Traditional	30	4.77	.81	.15
Posttest	Blended	30	6.28	.57	.10
	Traditional	30	5.63	.41	.076

Second, preliminary analyses were performed on the data from both the pretests and posttests. The results of Levene and Shapiro-Wilk tests revealed that the assumption of and homogeneity of variances and normality were satisfied. Hence, parametric tests were used to compare groups.

Two independent samples *t*-tests were employed to compare the groups' speaking performance. The results of the first *t*-test revealed no significant difference between the groups before the experiment, $t(58)$ = 1.82, p = .07 (95% confidence interval is -0.37 and 0.77). For the posttest, however, a significant difference was found between the two groups, $t(58) = 5.07$, $p < .001$ (95% confidence interval is 0.39 and 0.91). The magnitude of the difference in the means was large (eta squared = .11). In short, the two groups had similar speaking ability before the intervention but the blended group was significantly better than the control group in the posttest.

Descriptive statistics for the data obtained from the questionnaire are presented in Table 2.

TABLE 2
Descriptive Statistics for Data from the Engagement Questionnaire

	Group	N	Mean	Std. Deviation	Std. Error Mean
pretest	Blended	30	3.30	.58	.11
	Traditional	30	3.25	.47	.09
posttest	Blended	30	3.56	.41	.074
	Traditional	30	3.30	.40	.074

Two other independent samples *t*-tests were conducted on the data from the questionnaire. The results indicated that the groups had not been different in terms of their engagement before the experiment, $t(58)$ = .35, p = .730, (95% confidence interval is -0.239 and 0.32). However, after the study the experimental group was significantly more engaged than the control group, $t(58) = 2.50$, $p = .02$, eta squared = .97 (95% confidence interval is 0.05 and 0.47).

Discussion

In the current study, the participants in the blended group developed more in overall oral proficiency than the group attending traditional classes. This might be due to the modality of the blended format. That is, having the advantages of both online and face-to-face interaction, blended learning seems to be a more fruitful format than traditional forms of learning per se. In traditional classes, where communication occurs face-to-face, learners may avoid expressing themselves due to the pressure of anxiety or lack of sufficient time to process and produce language in real time. These issues are resolved in blended formats of learning. Unlike face-to-face communication, computer mediated interaction is believed to reduce the burden on working memory (Ortega, 1999) and give learners "more time to both process incoming messages and produce and monitor their output" (Sauro & Smith, 2010, p. 557).

Better speaking performance of the blended group in the posttest might also be related to another feature of the blended format. Through the blended format, learners with different personality types are given the opportunity to move at their own pace. According to Hojnacki (2015), depending on their personality type, some learners are more active in traditional classes while others contribute more in virtual classes. Blended learning provides opportunities for both types of students to voice their opinions either in virtual or in traditional classes. Moreover, based on Arispe and Blake (2012), conscientious learners benefit more from blended learning and low-verbal learners prefer learning through online materials than through traditional learning in class.

The findings of this study lend support to Swain's output hypothesis (Swain, 1993); producing language leads to learning and developing proficiency. According to Hojnacki (2015), learners produce more oral output through online formats than through traditional face-to-face instruction. Drawing on her findings, it may be concluded that the participants in the experimental group of this study had more oral output than the control group did. Therefore, according to the output hypothesis, more development in the

oral proficiency of the group which had online practice might be explained by the quantity of their language production.

Moreover, based on the results of the study it can be argued that the role played by output in learning is more influential when face-to-face interaction occurs in parallel with online interaction through the blended format. This might be related to the nature of blended learning. Through blended learning, as mentioned by Hojnacki (2015), learners have lower affective filters resulting in better conditions for learning to take place. In addition, learners have more time to prepare what they want to say and also have the opportunity to check and revise their statements before saying them. This result in learners' being more comfortable in expressing their voices in blended classes as compared to traditional classes.

Considering learner engagement, the results of the study revealed that the blended group outperformed the control group in terms of engagement. Better performance of learners in oral proficiency might be the result of their better engagement. A more in-depth analysis of the data collected through the engagement questionnaire revealed that blended learning is of help on four grounds. In other words, blended group was significantly different from the traditional group in four items:

    Item 3: Doing all the assignments
    Item 5: Looking over the class notes on a regular basis to make sure I understand the material
    Item 13: Really desiring to learn the materials
    Item 22: Being confident that I can learn or do well in the class

Blended learning is more encouraging to learners in doing their assignments. All (100%) learners in the blended group reported that "doing all the assignments" was their characteristic while 80.1% of the traditional groups reported so. In addition, more of the blended group (90%) than the traditional group (70%) "looked over the class notes on a regular basis to make sure they understood the materials". This might be related to the availability of the input they have received. Due to the temporary nature of spoken input, the traditional group did not have the opportunity to go back and review all the content they had received or produced. On the other hand, thanks to the benefits of the blended format, it was easier to look over the class contents and notes in spite of the transient nature of speech.

Finally, 90% of the blended group vs. 70% of the traditional group reported that they felt "confident that they can learn or do well in class". Since through the blended format learners are given the opportunity to move at their own pace in the absence of pressure from the presence of others, which results in a higher affective filter, they are more likely to have more self-confidence.

The results of this study run counter to those of Blake, Wilson, Cetto, and Pardo-Ballester (2008). They compared face-to-face, distance, and blended formats of learning and found no significant difference between the oral proficiency of the participants in their three groups.

Conclusion

This study examined the effects of blended versus face-to-face learning on learners' oral performance and engagement. The results revealed that learners who received blended instruction outperformed the control group in both oral proficiency and engagement. This is related to the benefits and opportunities that blended learning provides for learners. Moreover, blended learning engages learners more than traditional learning does. Better performance in speaking, therefore, might be mediated by the level of learner engagement. Based on the results of this study, introducing technology to learning and teaching contexts fosters learner engagement with the course and is more efficient in improving learners' speaking ability.

The Authors

Elahe Ehsanifard finished her MA at the University of Tehran. She has been published in the *Journal of Research in Applied Linguistics.* Her research interest areas are CALL, teacher education, second language acquisition, and curriculum design and materials development.

Faculty of Foreign Languages and Literatures, University of Tehran,
Karegar-e-Shomali St., Tehran, Iran.
Mobile: +98 9301303156
Email: elaheehsanifard@ut.ac.ir

Zargham Ghapanchi holds a Ph.D. in Applied Linguistics from the University of Liverpool, the UK. He has a chair at Ferdowsi University of Mashhad.   He has published several books and articles.

Faculty of Letters and Humanities, Ferdowsi University of Mashhad
Azadi Square, Mashhad, Iran
Mobile: +98 9151711806
Email: zghapanchi@gmail.com

Mohammad Afsharrad (corresponding author) is a PhD student (TEFL) at Ferdowsi University of Mashhad. He has published papers on bilingualism, listening, and writing. He has recently started working on the application of Rasch modeling in the social sciences.

Faculty of Letters and Humanities, Ferdowsi University of Mashhad
Azadi Square, Mashhad, Iran
Mobile: +98 9155724942
Email: mohammad.afshar@mail.um.ac.ir

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