



Impact of Big Blue Button Software on Listening Comprehension Among Iranian Intermediate EFL Learners

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Abstract

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Keywords:

Big Blue Button, Listening Comprehension, Distance Learning, Online Class, Virtual Learning Platform

The present study investigated the impact of Big Blue Button Software on listening comprehension among Iranian intermediate EFL learners. The study also aimed to figure out if there was a difference between female and male learners based on the effect of Big Blue Button Software on their listening comprehension. To this end, 40 Iranian EFL learners whose level of proficiency was intermediate and who were studying in online classes participated in the study. Their level of proficiency was evaluated via Oxford Quick Placement Test (OQPT). The participants enrolled in a 17-session online English course. In this course, the textbook was Touchstone 2, and the classes were held by Big Blue Button as the platform. At the end of the course, the listening post-test was given to the participants to compare their listening comprehension before the treatment and to compare female and male participants. The study's findings indicated that Big Blue Button significantly improved listening comprehension among Iranian male and female intermediate EFL learners, and gender did not play an important role. The results of this study provide practical implications for teaching and learning listening comprehension and online language teaching.

تأثیر نرم افزار Big Blue Button بر درک شنیداری زبان آموزان ایرانی در سطح متوسط

پژوهش حاضر به بررسی تأثیر نرم افزار دکمه بزرگ آبی بر درک شنیداری زبان آموزان ایرانی در سطح متوسط می پردازد. این مطالعه همچنین با هدف تعیین اینکه آیا تفاوتی بین زبان آموزان زن و مرد بر اساس تأثیر نرم افزار دکمه بزرگ آبی بر درک شنیداری آنها وجود دارد یا خیر، انجام شد. به این منظور، 40 زبان آموز ایرانی زبان انگلیسی که سطح مهارت آنها متوسط بود و در کلاس های آنلاین مشغول به تحصیل بودند، در این مطالعه شرکت کردند. سطح مهارت آنها از طریق آزمون قرار دادن سریع آکسفورد (OQPT) ارزیابی شد. شرکت کنندگان در یک دوره آموزشی آنلاین انگلیسی 17 جلسه ای ثبت نام کردند. در این دوره کتاب درسی 2 Touchstone بود و کلاس ها توسط Big Blue Button به عنوان پلتفرم برگزار می شد. در پایان دوره، پس از آزمون شنیداری به شرکت کنندگان داده شد تا درک شنیداری آنها قبل از درمان با هم مقایسه شود و شرکت کنندگان زن و مرد با هم مقایسه شوند. یافته های این مطالعه نشان داد که دکمه بزرگ آبی به طور قابل توجهی درک شنیداری را در بین زبان آموزان ایرانی مرد و زن انگلیسی زبان آموزان متوسط بهبود می بخشد و جنسیت نقش مهمی ایفا نمی کند. نتایج این مطالعه مفاهیم عملی را برای آموزش و یادگیری درک شنیداری و آموزش آنلاین زبان ارائه می دهد.

کلمات کلیدی: دکمه آبی بزرگ، درک شنیداری، آموزش از راه دور، کلاس آنلاین، بستر یادگیری مجازی

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Introduction

Listening comprehension, particularly in English, is one of the most necessary skills to perform communication. It is regarded as the most difficult language skill to acquire (Gilakjani & Sabouri, 2016). Moreover, foreign language listening comprehension is an unforeseeable, complicated, and imperative process in developing foreign language proficiency; yet, the significance of listening in language learning has recently been noticed (Ableeva, 2010). Many researchers have performed some studies on listening and considered it an essential skill in educating and learning (Marzban & Abdollahi, 2013; Moore & Hall, 2012; Pourhosein Gilakjani & Ahmadi, 2011; Tabrizi & Saeidi, 2015). For example, Nunan (1998) believed that listening is the primary skill in language learning. Lacking listening skills, students can never realize how to convey meaning and communicate properly.

Considering the importance of listening comprehension in communication and the development of online learning, which has gained a unique position in education (Zhang, 2013), it is necessary to use a suitable platform to hold an online class to improve this important skill successfully. Additionally, recently, the outbreak of Coronavirus changed the way of learning from in-person education to online education. Online language learning had already been an increasingly popular and valuable method of language acquisition before the spike in demand for alternative learning methods brought upon by the Covid-19 pandemic (Kawinkoonlasate, 2020). Therefore, this study was conducted to investigate the effects of Big Blue Button, a free and famous platform for holding online classes in Iran, on listening comprehension. Different platforms like Big Blue Button, Zoom and Adobe Connect are used worldwide for holding online courses, webinars or lectures, and even online workshops. Big Blue Button, Zoom, Adobe Connect, and Skype can be used not only for delivering synchronous video conferences but also in various online learning designs such as cooperative learning (Jacobs & Ivone, 2020). These tools facilitate individualization of the learning process and cooperation in a multiplied framework (Bernardi et al., 2018).

As previously mentioned, listening comprehension is an essential skill that is a prerequisite to acquiring other language skills. However, this skill has been neglected or considered insufficient by researchers. Therefore, this skill needs to be studied more thoroughly. Moreover, not enough studies have been conducted on the abovementioned platforms that are used for teaching online classes since the emergence of COVID-19. Most of the previous studies have only focused on the

impact of online listening classes on listening comprehension (Ruiyah, 2021; Sulisto, 2021; Susilowati, 2020). Very few studies have explored the usefulness and efficiency of tools, such as Big Blue Button Software in education (Cavus & Sekyere-Asiedu, 2021; Tavukcu, 2016). Up to now, far too little attention has been paid to the effect of BigBlueButton Software on language instruction (Kohn & Hoffstaedter, 2017; Schmied, 2021). Therefore, this study aimed to firstly investigate the impact of Big Blue Button Software on listening comprehension among Iranian intermediate EFL learners. Secondly, the study also examined the impact of Big Blue Button Software on listening comprehension among Iranian intermediate EFL learners in terms of gender. In line with the research objectives, the following research questions were posed:

- 1) Does Big Blue Button Software have any significant impact on improving listening comprehension among Iranian intermediate EFL learners?
- 2) Does Big Blue Button Software have any significant impact on improving listening comprehension among Iranian intermediate EFL learners in terms of gender?

Research Hypotheses

The following research hypotheses were tested in this study:

- 1) Big Blue Button Software does not have any significant impact on improving listening comprehension among Iranian intermediate EFL learners.
- 2) Big Blue Button Software does not have any significant impact on improving listening comprehension among Iranian intermediate EFL learners in terms of gender.

Literature Review

Definition of Listening Skill

According to Anderson and Lynch (1988), arguing what is successful listening, “understanding is not something that happens because of what a speaker says: the listener has a crucial part to play in the process, by activating various types of knowledge, and by applying what he knows to what he hears and trying to understand what the speaker means” (p. 6). Mendelson (2000) defined listening comprehension as the ability to understand the spoken language of native speakers. Mendelsohn (2000) pointed out that, in listening to spoken language, the ability to decipher the speaker’s intention is required of a competent listener, in addition to other abilities such as processing the linguistic forms like speech speed and fillers, coping with listening in an interaction,

understanding the whole message contained in the discourse, comprehending the message without understanding every word, and recognizing different genres.

Employment of Virtual Classes for Online Language Learning

Virtual classrooms enable language students to contact native speakers of any preferred language, which helps students develop their language production skills (speaking and writing). The most important advantages of virtual classrooms are their flexibility, interaction, and assistance for those with restricted mobility or lack of resources (Kobzar & Kuriata, 2015). These points will be explained in detail in the following parts.

Virtual classrooms have advantages for students with limited mobility or limited access to educational resources (Kobzar & Kuriata, 2015). The classrooms allow for the students to have more talk time than they would receive in typical traditional classroom settings due to the differences in class sizes. In a consort with the advantage of bringing the lesson to the student, evidence recommends that Online Language learning (OLL) enhances student motivation (Kobzar & Kuriata, 2015). The use of technology at home helps to encourage and improve EFL students' learning and acquisition of English vocabulary (Al-Jarf, 2007). Yen et al. (2015) discovered that technology develops speaking and writing skills, where many environmental and cultural components restrain language learning, such as the nonexistence of interactive speaking environments, concentration on test scores, and foreign language anxiety. They also noted the participation levels of students in computer-assisted discussions were greater than in face-to-face discussions. Golonka et al. (2014) reviewed 350 articles on online language learning and technology. They found evidence that, with online chat, the learners' language production and complexity increase and the technology enhances the learners' output and interaction. These findings suggest that learning through online discussions with an instructor would increase performance at a faster rate over time.

Yadav (2016) discusses the advantages and disadvantages of using computers and the Internet in education and discusses the role of teachers in Internet education. Yadav states how the use of the Internet and web lead to significant changes in educational models and in communication tools that are adapting easily with learning methods. He mentions that virtual classes are a new term of E-learning, where the students will be present with their professor and fellow learners in a classroom via the Internet. He also states that the availability of different

communication materials between teachers and students in virtual classes considers as a beneficial role is of synchronous online classes. It plays an imperative role in preserving interaction. Moreover, he points out the interaction capability of the synchronous virtual classroom and the importance of learner-learner, learner-instructor, learner-content, and learner-interface interaction within the virtual classroom. He also concludes with the need for training and technical problems consider as disadvantages of virtual classes.

Correspondingly, Danesh et al. (2015) emphasize the role of technology in interaction and communication as interacts with distance education. They maintain that a lot of universities in higher education are increasing their online course. They focus on technology and media as their relation in collaboration, interaction, and communication. They also mention that the increasing interest in distance education attributes to two significant factors. These factors are the progress of computing and telecommunication technologies, the second is the change in the demographic population of college students. They also assert that communication plays a significant role in the success of distance education and is a collective activity. Effective communication is possible when participants share similar ground relates such as mutual knowledge, beliefs, and assumptions in a conversation.

Big Blue Button: A Platform for Online Classes

It is an open source web conferencing system specifically designed for virtual learning environment. It was developed at Carleton University, Canada (Roesler et al., 2012). The first version of Big Blue Button (BBB) was released in 2007 to enable students from remote areas to take part in web conferencing system. Throughout the year 2008 Big Blue Button 0.32 was introduced with aspects such as chat, video, slides, and voice. Subsequently, the version 0.62 with additional feature desktop sharing and build in VoIP in the year 2009. Next version 0.7 of Big Blue Button was released during the year 2010 with built-in whiteboard (Ravisekaran & Ramakrishnan, 2015).

By November 2011, Big Blue Button 0.8-beta-1 was developed with audio setting dialogue. The additional ability to record and playback the slides, audio features and interaction facility with lecturer were incorporated in 0.8 version during the year 2012. Subsequent, version 0.81 (2013) was successfully developed by incorporating the facility of interview by VoIP conference. The

2014 release of Big Blue Button support Web RTC audio (Dixon, 2020). The most important advantage of this release is reducing the time delay between users who are geographically at far apart and consequently guaranteeing the video and audio perfect synchronization.

Review of the Previous Empirical Studies

In this section, the previous empirical studies done so far on the area that was investigated in this study are reviewed and analyzed:

Fauzi and Angkasawati (2019) conducted a study to figure out the effect of employing listening logs using WhatsApp on the listening comprehension of EFL students. The experiment was done by participating 40 EFL students and held for three weeks which practiced four facets of listening comprehension: (1) detecting main ideas or main gist, (2) recognizing supporting details, (3) categorizing moods of the message, and (4) evolving new vocabularies. The researchers concluded that the practice of listening through listening logs in WhatsApp gives noteworthy enhancement in listening comprehension to EFL learners.

Rifiyanti (2020) tried to detect English learners' ideas about online English learning during the COVID-19 pandemic. The data were collected through questionnaires by instruments consisting of learners' perceptions about the effectiveness of learning English online, the accessibility of the internet during English online learning, the technical performance of lecturers to teach English online, and the level of difficulty of language skills to learn online. The study indicated that based on the students' perceptions, online learning especially for English classes is an efficient way during the pandemic. They also believed that the listening section is the most difficult skill to learn in online English class.

Susilowati (2020) conducted a study to discover the challenges in conducting online learning in listening classes at the university level. The first challenge was related to selecting the appropriate technological devices, systems, and applications operated throughout the class. The second challenge was the packaging of material delivered so that it will be simplified but not to lessen the quality level of the material. The third challenge was the application of operational methods and strategies suited to online learning in listening classes.

Sulistio (2021) studied EFL learners' attitudes towards online listening classes during the pandemic Covid-19. The participants of the study were 67 EFL learners who were selected through random sampling. The data of the study were collected using a questionnaire. The analysis of the

obtained results from the questionnaire indicated that 40 out of 67 students had positive attitudes towards online listening classes during the pandemic Covid-19.

Rui'yah (2021) investigated EFL learners' perceptions of online listening classes. The data were collected using a questionnaire that was administered to 10 English learners. The analysis of the data revealed that online learning activities in listening classes focus on revealing the learner with authentic material and encourage students to practice the listening skills independently especially IELTS by providing the students with suitable and sufficient material. It also found that learning platforms are applied effectively. The study also indicated that the participants believed that online listening classes were enjoyable, practical, and flexible.

Cavus and Sekyere-Asiedu (2021) utilized a comparative research method to compare features of seven online video conference platforms; Google Meet, Microsoft Teams, GoToMeeting, Cisco WebEx Meetings, Zoom Meetings, ClickMeetings and Big Blue Button. The comparative results revealed that each online video conference platform has different beneficial features for teachers and students. Teachers should analyze carefully all features of each platform, to select an appropriate platform for student needs.

The review of the previous literature indicated that listening comprehension is a fundamental skill of English which is necessary for other language skills like vocabulary, speaking, and communication. However, this skill has been almost ignored and researchers have not considered it meticulously. It was also indicated that education has shifted from physical classes to online classes because of the outbreak of the Covid-19 pandemic. Platforms are important components of holding an effective online class in general and English classes in specific. Platforms create an environment for English students to communicate with each other in a virtual setting. However, the usefulness and efficiency of these tools in online classes, particularly for listening comprehension in EFL context, have not been investigated so far. Therefore, the researcher conducted this study to bridge this gap.

Method

Participants

The participants of the study were 40 Iranian EFL learners whose level of proficiency was intermediate. The participants were an equal number of male and female EFL learners who were

studying English in online classes at Koosha Language Institute in Isfahan. The participants' age ranged between 16 and 28 years old and their first language was Persian. The participants were informed about the purpose of the study by the manager of the institute and they agreed to take part in it. The placement test which, was Oxford Quick Placement Test (OQPT), was given to all learners in the institute and the ones who were recognized as intermediate learners were selected as the participants. Then, the participants were divided into two equal classes based on the participants' gender.

Design of the Study

This study was quasi-experimental because the participants were selected only from one group of English learners who were intermediate English students. In addition, the study employed a pre-test post-test design to collect the required data. The study had an independent variable and a dependent variable. The independent variable of the study was the Big Blue Button platform and the dependent variable was the participants' listening comprehension.

Instrumentation

The instrumentation of the study consisted of the Oxford Quick Placement Test (OQPT), the listening test, and Big Blue Button which are described in this part of the chapter.

Oxford Quick Placement Test (OQPT)

Oxford Quick Placement Test (OQPT) version 2 is a standard test of language proficiency that was given to the participants before conducting the study to select a homogeneous group of participants. The test consists of two parts; part one contains 40 questions: testing situations (five questions), cloze passages, testing prepositions, grammar, pronouns, and vocabulary (15 questions), and completion questions (20 questions). The second part contains 20 questions; 10 questions on cloze passages and 10 questions of completion type questions. All questions are multiple-choice items. This test is scored out of 60 and each test taker whose score is between 30 and 39 is regarded as a lower intermediate English learner.

Listening Test

The listening test was selected from *Developing Tactics for Listening* (Richards & Trew, 2011) because this book was not taught in the institute and the participants were not familiar with it. *Tactics for Listening Third Edition* is an activity-rich listening course with proven success in building skills in listening and conversation. Now with *Tactics for Testing*, it provides plenty of practice in testing and exam techniques. The result is confident listeners - and exam success. This book has three levels of basic, developing, and expanding where the developing level is suitable for intermediate students (Richards & Trew, 2011). The test consisted of 20 multiple-choice questions without deductive scores. The participants' scores could range between 0 and 20. The reliability of the test was evaluated via KR-21 formula ($r = .83$) whose results showed that the test had high reliability. To make sure that the test was valid, two experts in the field of TEFL who had Ph.D. degrees were consulted and they confirmed its validity. The test was given to the participants twice during the study. First, it was given to the participants before the treatment as the pre-test. Second, it was given to the participants after the treatment as the post-test.

Big Blue Button Software

Big Blue Button is an international teaching platform. It was developed in a school, not in a boardroom making it the only virtual classroom created from the beginning, only for teachers. It is available in 65 languages and teachers around the world have contributed to its design. In a consort with a global network of developers and companies providing commercial support, Big Blue Button is uninterruptedly growing to satisfy the new real-world needs of teachers in all places.

Procedure

In order to select suitable participants for the study, the placement test was given to the participants and the ones whose level of proficiency was intermediate were selected. Then, the participants were put into two equal classes based on their gender. Next, the pre-test was given to the participants to make sure female and male participants were at the same level of listening comprehension skills. The participants enrolled in a 17-session online English course. In this course, the textbook was *Touchstone 2* and the classes were held by Big Blue Button as the

platform. The first half of the book was taught to the participants. During the course, the participants learned all language skills of vocabulary, listening, speaking, reading, and writing based on the textbook. The participants were continuously evaluated by the researcher to figure out their improvement in English. After completing the course, the post-test was given to the participants to compare their listening comprehension before the treatment and to compare female and male participants with each other. The results of the tests were gathered to be analyzed statistically.

Data Analysis

The obtained data of the study were analyzed using Statistical Package for Social Sciences (SPSS) software version 24. To analyze the data, both descriptive and inferential statistics were employed by the researcher. The descriptive statistics were frequency, mean, and standard deviation. The inferential statistics were paired-samples *t*-test which was run to compare the results of the pre-test and post-test with each other and independent-sample *t*-test which was run to compare female and male participants with each other.

Results

Results of the Normality Tests

The normality tests were run to assess the assumption of the normality of the data. The results are shown in the table below.

Table 1

Tests of normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	<i>Df</i>	<i>Sig.</i>	Statistic	<i>df</i>	<i>Sig.</i>
OQPT	.122	40	.139	.958	40	.147
Pretest	.074	40	.200	.976	40	.532
Posttest	.072	40	.200	.984	40	.848

Since the size of the sample in this study was small, the results of the Shapiro-Wilk test were considered for assessing the assumption of normality. The results of the test indicate that the distribution of data for OQPT ($p = .147$), pretest ($p = .532$), and posttest ($p = .848$) were normal

because all p values were greater than .05. Therefore, parametric tests were suitable for analyzing the findings of the study.

Results of OQPT

The OQPT was given to the participants to measure their general English knowledge and to make sure there was not a significant difference between male and female learners related to this issue.

Table 2

Descriptive statistics of OQPT

	Participants	<i>N</i>	Mean	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
OQPT	Female	20	34.77	1.718	.384
	Male	20	34.39	1.833	.410

Table 4.2 shows the descriptive statistics of the female participants ($M = 34.77$, $SD = 1.72$) and male participants ($M = 34.39$, $SD = 1.83$) on OQPT. The female participants performed better on this test but this cannot be significant. To be sure about it, the independent-samples t -test was run.

Table 3

Results of the independent-samples t -test for OQPT

	Levene's Test for Equality of Variances		t -test for Equality of Means							
	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	Mean Difference	<i>Std. Error Difference</i>	95% Confidence Interval of the Difference		
								Lower	Upper	
OQPT	Equal variances assumed	.234	.631	.685	38	.498	.385	.562	-.753	1.522
	Equal variances not assumed			.685	37.841	.498	.385	.562	-.753	1.522

Based on the results of the independent samples *t*-test ($t(38) = .69, p = .498$), there was not a significant difference between male and female participants on OQPT. Therefore, all participants were intermediate EFL learners.

Addressing the First Research Question

The first research question was posed to investigate the effects of Big Blue Button on improving listening comprehension among Iranian intermediate EFL learners.

Table 4

Descriptive statistics of the female participants

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	11.31	20	2.461	.550
	Posttest	16.03	20	1.928	.431

Table 4.4 shows the descriptive statistics of the female participants on the pretest ($M = 11.31, SD = 2.46$) and on the posttest ($M = 16.03, SD = 1.93$). It is obvious that the participants performed better on the posttest. The paired-samples *t*-test was conducted to measure this issue statistically.

Table 4

*Results of the paired-samples *t*-test for the female participants*

Pair		Paired Differences					<i>t</i>	<i>df</i>	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
1	Pretest - Posttest	-4.726	3.506	.784	-6.367	-3.085	-6.029	19	.000

Table 4.5 indicates that the results of the paired-samples *t*-test were statistically significant ($t(19) = -6.03, p < .001$) because the *p* value was lower than .05. Therefore, BigBlueButton had a significant effect on improving the female learners' listening comprehension. The results are also shown in the figure below.

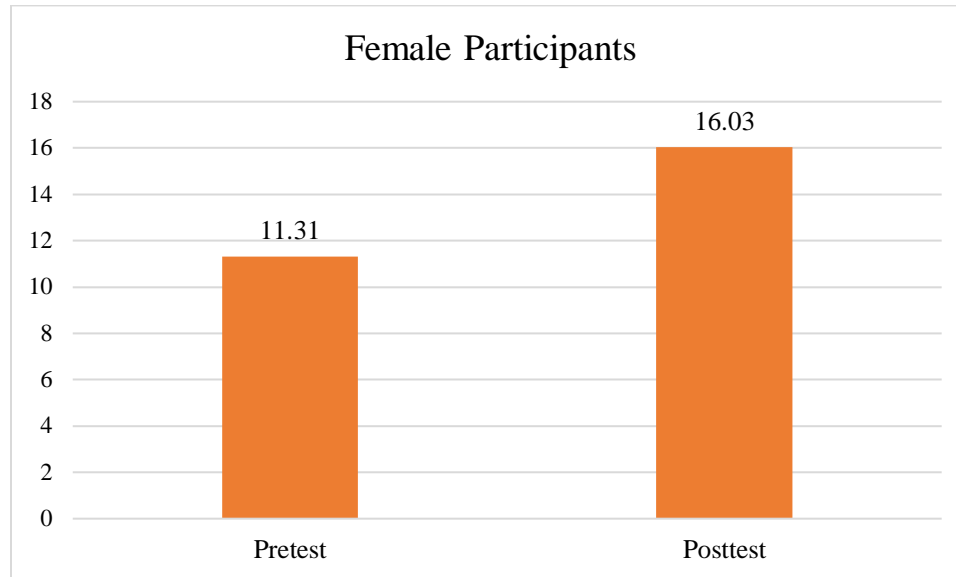
Figure 1*Mean scores of female participants on the tests*

Figure 4.1 shows that the female participants significantly outperformed on the posttest.

Table 5*Descriptive statistics of the male participants*

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	12.57	20	2.552	.571
	Posttest	16.09	20	2.321	.519

Table 4.6 indicates the descriptive statistics of the male participants on the pretest ($M = 12.57$, $SD = 2.55$) and on the posttest ($M = 16.09$, $SD = 2.32$). It is noticeable that the participants outperformed on the posttest. The paired-samples t -test was conducted to measure this issue statistically.

Table 6*Results of the paired-samples t -test for the male participants*

Paired Differences							
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
			Lower	Upper			

Pair 1	Pretest - Posttest	-3.522	3.464	.775	-6.143	-1.901	-4.547	19	.000
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Table 4.7 indicates that the results of the paired-samples *t*-test were statistically significant ($t(19) = -4.55, p < .001$) because the *p* value was lower than .05. Therefore, BigBlueButton had a significant effect on improving the male learners' listening comprehension. The results are also illustrated in the figure below.

Figure 2

Mean scores of male participants on the tests

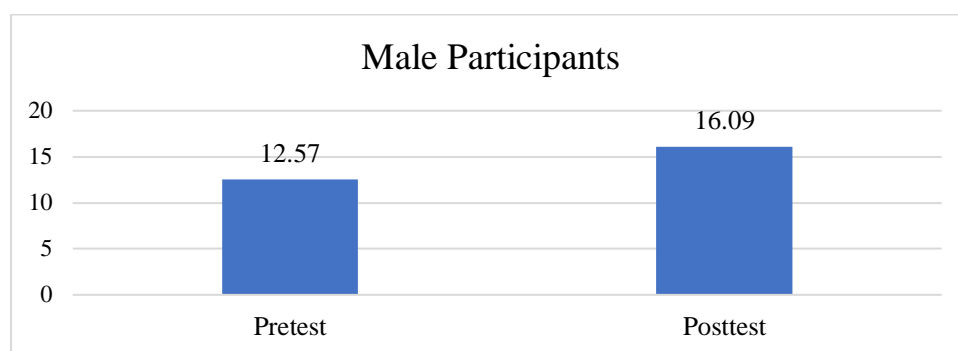


Figure 4.2 shows that the male participants significantly performed better on the posttest.

Addressing the Second Research Question

The first research question was posed to investigate the possible difference between the effects of Big Blue Button on improving listening comprehension among Iranian intermediate female and male EFL learners.

Table 7

Descriptive statistics of the posttest

	Participants	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Female	20	16.03	1.928	.431
	Male	20	16.09	2.321	.519

Table 4.8 shows the descriptive statistics of the female participants ($M = 16.03, SD = 1.93$) and male participants ($M = 16.09, SD = 2.32$) on the posttest. The table shows that the male

participants performed better on this test but this better performance was not considerable. To evaluate this issue statistically, the independent-samples *t*-test was conducted.

Table 8

Results of the independent-samples t-test for the posttest

	Levene's Test for Equality of Variances		<i>t</i> -test for Equality of Means							
	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	Mean Difference	<i>Std. Error</i> Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Posttest	Equal variances assumed	2.443	.126	-.090	38	.928	-.061	.675	-1.427	1.305
	Equal variances not assumed			-.090	36.767	.928	-.061	.675	-1.428	1.306

Based on the results of the independent samples *t*-test ($t(38) = -.09, p = .928$), there was not a significant difference between male and female participants on the posttest. Therefore, the software had a similar effect on both female and male participants.

The results of the study revealed that Big Blue Button had a significant effect on improving listening comprehension among Iranian male and female intermediate EFL learners and gender did not play a significant role. The findings of the study will be discussed in the following part.

Discussion

The findings of the study are discussed based on the research hypotheses. The research hypotheses were: a) Big Blue Button Software does not have any significant impact on improving listening comprehension among Iranian intermediate EFL learners, b) Big Blue Button Software does not have any significant impact on improving listening comprehension among Iranian intermediate EFL learners in terms of gender. Because the two research hypotheses are completely related to each other and they cannot be separated, they are discussed together in one part. The findings of

the study indicated that Big Blue Button had a significant effect on improving listening comprehension among Iranian male and female intermediate EFL learners and gender did not play a significant role. Therefore, the first research hypothesis was rejected, but the second research hypothesis was not rejected.

Online teaching is a new era in the field of education and consequently, the academic studies that have been conducted on this issue are not considerable in comparison with other issues. However, there are some similarities between the findings of this study and the findings of the previous studies in the literature. The results of this study are in line with the results of the study conducted by Fauzi and Angkasawati (2019) who investigated the effect of employing listening logs using WhatsApp on the listening comprehension of EFL students. The researchers claimed that the practice of listening through listening logs in WhatsApp gives noteworthy enhancement in listening comprehension to EFL learners.

In both of these studies, the results indicated that the implementation of some additional or supplementary applications like WhatsApp or Big Blue Button has positive effects on English learners' listening comprehension. It can be because of the possibilities that these applications provide for teachers and learners to teach and practice this skill. Moreover, Big Blue Button makes the atmosphere of the online class more interesting and provides learners with opportunities to practice with each other.

In another study, Marleni et al. (2021) investigated the effects of using video as media on the students' listening comprehension in an online class. The researchers concluded that video in teaching listening comprehension in an online class is an influential media and significantly improves learners' listening comprehension. Similar to the previous study, this study also showed that using additional material in online classes has a positive effect on enhancing the learners' listening comprehension. Therefore, the findings of the present study are a confirmation of the results of the previous studies.

In general, it can be mentioned that the employment of platforms like Big Blue Button can be a great help for improving English learners' listening comprehension. Therefore, it is recommended that English teachers hold their online classes using this platform or other useful or suitable platforms.

Conclusion

The aim of this study was to investigate the effects of the Big Blue Button platform on Iranian EFL learners' listening comprehension and compare female and male learners based on this issue. From the results of the study, the researcher concluded that Big Blue Button Software has a significant effect on improving listening comprehension among Iranian intermediate EFL learners. Moreover, there is not a significant difference between female and male learners related to the effects of this software on their listening comprehension.

As previously mentioned, Big Blue Button makes the online class more interesting to learners because of its features. These features consist of providing the teacher with the possibility of sharing different things such as PDFs, pages of books, and various slides. It also has a board that provides enough room for the teacher to write necessary notes on it. Unfortunately, the teacher cannot show video files using this platform, but there are not any problems for playing audio files with high quality which is very useful for teaching the listening comprehension skill. Moreover, this platform enables the teacher to create breakout rooms where students can do pair-work or group work which is very useful for practicing and improving skills like listening comprehension. Furthermore, the teacher has the possibility to observe and control these rooms to guide the students and give them feedback.

In online classes, applying effective technological devices, applications or other kinds of technology should consider the cost spent too. It becomes a challenge for teachers, lecturers, and educational practitioners to consider consciously which technological devices which is most appropriate to be used. In addition, choosing and using a suitable platform for holding an online class is a challenging area for either teachers or institutes and it is of utmost importance. Big Blue Button is a platform that is designed for holding online classes and can provide a suitable and interesting atmosphere for both teachers and learners. Moreover, not having suitable interaction between the teacher and the students or between the students with one another is a big problem in online classes. Big Blue Button can solve this problem by providing the possibility of mutual interaction between the teachers and students or between the students with each other.

Therefore, it is recommended that teachers use this software for holding their online classes to have a more fruitful class. To have the proper usage of this software teachers need to have suitable knowledge of computers and obtain the proper skill of using this software.

Implications of the Study

The findings of this study provide useful implications for English teachers and learners and language institutes. Improving EFL learners' listening comprehension has always been a challenging area for teachers. This issue is even more problematic in online classes. The results of this study can help English teachers become familiar with the features of Big Blue Button and its usefulness for holding online classes. Therefore, they can improve the quality of their online classes and their teaching in these classes and enable their students to improve their language knowledge and their listening comprehension. Moreover, EFL learners can benefit from the results of the study. If language teachers hold their online classes through Big Blue Button, English learners will be able to learn more effectively in these classes and consequently get better results. Furthermore, language institutes can benefit from the results of the study to use this platform for more effective and more interesting online classes. Finally, this study enriches the literature in the areas of online teaching and listening comprehension.

Limitations of the Study

During the process of conducting this study, the researcher faced some limitations which could affect the results of the study. the first and foremost limitation of the study is the nonexistence of a study in the literature that investigated the use of platforms in online classes. Therefore, the researcher could not compare the results of this study with similar studies in the past to get a more comprehensive understating of the results of the study. The second limitation of the study was related to the small sample of the study which can provide problems for the generalizability of the results. By increasing the number of participants in the study, this problem increases. The third limitation of the study was related to the low speed of the Internet and constant disconnections of the internet that the researcher and the participants during the classes. The fourth limitation of the study was related to participating only intermediate learners in the study.

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