The Impact of BigBlueButton vs. Skype on Communication Anxiety and Oral Communication Skills

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Abstract The present study, following a sequential mixed-methods design, aimed at examining whether internet-based applications, including Big-BlueButton and Skype online instruction differ in terms of communication anxiety and oral communication skills for EFL learners. A pool of 32 Iranian pre-intermediate EFL students participated in the quantitative phase of the study based on convenience sampling and a pool of nine students participated in the qualitative phase of the study based on purposive sampling. The results of one-way ANCOVA confirmed that there was a significant difference between the Skype group and the BigBlueBottom group in terms of communication anxiety and oral communication skills. Following inter-coder reliability, the most common themes (i.e., novel, challenging, motivating, less stressful, helpful, low internet speed, lack of equipment, and time-consuming) emerged from the students' responses to the interview questions regarding the role of online learning on oral communication skills. Finally, some practical implications were offered for EFL students and teachers, and some suggestions were made for conducting further studies.

Keywords: Internet-based applications, Oral communication, Computer-based tools, Virtual education, Communication anxiety

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1. Introduction

As some students live in different locations and have different availability, it is understandable that educators would find distance learning services helpful (Rosenberg, 2000). Computer-assisted language learning (hereafter CALL) manifests itself in several forms, one of which is computer-assisted materials. Levy (1997) defines CALL as "the study of software programs for use in the classroom" (p. 1). Lam and Lawrence (2002) note that using computers in a collaborative classroom leads to a shift in focus from the teacher to the students. In previous times, the main goal of teaching English was to achieve proficiency in structures. Nevertheless, due to the advancement of communicative language teaching, the focus on language acquisition shifted to enhancing the communicative skills of learners in the target language (Dörnyei, 2014). Despite all, learners exhibit variations in their communication abilities in the target language.

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MacIntyre and Charos (1996) argue that the current trend towards a conversational approach in second language pedagogy stems from the belief that language proficiency can only be developed through active use and conversation. However, despite having the opportunity to use the second language, learners exhibit differences in their speaking abilities. In fact, communicating orally is often considered fundamental (Richards & Renandya, 2002). Because of the centrality of oral communication in education and business, some factors can influence how well second- or foreign-language learners perform oral and written tasks (Ellis, 2003). The content that students engage with is an important consideration. Edwards and Usher (2000) note that in Iranian culture, the ability to speak English and use computers are prerequisites for finding a job, advancing one's career, and enrolling in college.

Many factors contribute to learning a new language, among which are psychological factors that can have either helpful or detrimental effects on the learning process. Numerous studies on second language acquisition (SLA) have indeed confirmed that a significant number of language learners face intrapersonal challenges. Among these challenges, anxiety stands out as a prominent issue. Various studies, such as the one conducted by MacIntyre and Gardner (1994), have demonstrated that language anxiety impedes the advancement of both FL and L2 students. Based on the research by MacIntyre and Gardner (1994), communication anxiety is identified as a type of anxiety that is specific to certain situations. Additionally, Horwitz (1986) recognizes communication anxiety as a structure-specific form of anxiety, which is distinct from other types of anxiety. This feeling of tension and apprehension is primarily associated with second language contexts, including speaking, listening, and learning.

Meanwhile, as Hamidi and Rahimpour (2023) argue, rapid advances in computing power have provided strong support for integrating digital resources into language teaching. In structural and communicative CALL, the instructor frequently acts as a mediator between the students and the computer as they engage in the learning process (see Felix, 2001; Gruba, 2004). In recent years, computerized tools and internet-based applications such as Adobe Connect, BigBlueButton, and Skype have emerged as popular tools for conducting online conferences and delivering virtual courses across the country. This versatile platform offers a range of features, including file sharing, screen sharing, breakout rooms for group discussions, and the ability to switch participant roles. In light of the global COVID-19 pandemic that began in 2019, both public and private educational institutions increasingly turned to such tools as a means of delivering classes remotely. Given the relatively short period of time since its widespread adoption in schools and universities in Iran, it is important to explore the impact of this platform on various aspects of language learning, such as psychological barriers and communication skills (Thomas, 2013).

Nevertheless, the main problem is that students studying EFL must prepare for the challenges of using technology in the classroom. Lack of access to appropriate technology resources in the classroom is also a concern. Students are accustomed to working with paper-based course materials, even though the rapid development of technology requires that they learn to use such developments. The researchers of the current study felt that there is a vacuum of research in this area concerning the Iranian context after examining the previous works on speaking skills and discovering a need for more research on the relationship between new computerized tools and speaking skills for EFL learners.

Point taken, the primary objectives of this research were threefold: 1) to determine if pre-intermediate EFL students could benefit from using Internet-based applications, including BigBlueButton and Skype online instruction with regard to their communication anxiety; 2) to determine if they could benefit from using these applications with respect to their oral communication skills; and 3) to investigate their reactions to the role that BigBlueButton and Skype could play in improving their oral communication skills.

2. Theoretical Framework

2.1. Communication Skills and Communication Anxiety in SLA

A considerable amount of literature has been published on the importance of oral communication in SLA (Aubrey et al., 2020; Nation & Newton, 2008; Nunan, 1997, to name but a few). According to Purdy (1997), oral communication is an active and dynamic process that involves attending, perceiving,

interpreting, remembering, and responding to verbal and nonverbal expressions, needs, concerns, and information provided by others. Indeed, speaking is perceived as the most important language skill (Ur, 1999), and it is considered as the basis of communication and literacy (Richards & Renandya, 2002). Indeed, the realm of teaching a second language has changed dramatically over the years. New teaching approaches and methods have been introduced by scholars in English language teaching, mainly as an extension or a reaction to the previous approaches and methods (Celce-Murcia, 2001). According to Modarresi (2009), the shift from the reductionist language paradigm to the communicative language paradigm has highlighted the complexity of language, including the prefabricated chunks. EFL learners require strong listening and speaking skills in order to effectively communicate in spoken contexts (Khorami Nia & Modarresi, 2019).

However, the existing literature witnesses that two primary factors that influence interaction in the classroom are communication anxiety and perceived self-efficacy (MacIntyre, 1994; MacIntyre et al., 2002). McCroskey and Richmond (1982) propose that communication anxiety is connected to specific communication contexts, while self-perceived competence refers to an individual's evaluation of their own communication skills. In the realm of language anxiety and emotions, numerous topics have been identified as crucial areas of study (Gardner, 1985; Hasanzadeh et al., 2024; Khorsand & Modarresi, 2023; Pishghadam et al., 2022;). For instance, Gardner (1985) adapted the English classroom anxiety scale, while Cheng (2004) created the second language anxiety inventory, which evaluates anxiety levels in learners based on potential factors. Likewise, Numerous researchers argue that behavior is influenced by the specific circumstances in which it occurs (MacLeod & Fraser, 2010; Modarresi, 2022; Pishghadam et al., 2023).

2.2. Computer-Aided Tools in SLA

There is a large volume of published studies on the role of CALL in SLA (Al-Badi & Khan, 2022; Chappelle, 1998; Warschauer, 2004). According to Delcloque (2000), the origins and evolution of CALL can be traced back to the 1960s. Murphy (2001) highlighted the role of integrative CALL, which encompasses the integration of various language skills and the incorporation of technology into language learning. In the same vein, Beatty (2013) proposed that CALL is a burgeoning branch of applied linguistics that is currently in the process of establishing its trajectory. Meanwhile, according to Wolska et al. (2012), there is a distinct category of computer use known as communicative computer use, which differs from formal or communicative CALL. Qashoa (2013) concluded that the increasing utilization of technology, along with internet-based learning and teaching, has brought about a significant transformation in traditional language classrooms and, consequently, in language syllabi. In a review of the literature by Yamazaki (2014), with the development of technology as well as VRs and three-dimensional (3D) multiplayer games, Integrative CALL emphasizes the environment in which interaction takes place from a sociocultural perspective. Hosseini and Modarresi (2015) developed and validated the questionnaire of CALL knowledge for EFL learners and found a significant association between CALL knowledge and communicative skills.

The existing literature on distance education and online courses indicates that online instructors experience similar improvements in their teaching abilities compared to traditional classroom instructors (McIntyre & Wolff, 1998; Palpanadan et al., 2021). Bhatia and Ritchie (2009) discuss the extensive research conducted on the impact of technology in second language (L2) teaching, acquisition, and research. In this respect, Kim (2010) suggests incorporating games, role-plays, and problem-solving tasks in TOEIC listening test preparation classes to enhance learner engagement and improve test performance. Miangah and Nezarat (2012) observed that wireless communication technology is utilized in various fields, including GPS navigation, wireless monitoring systems, and learning different subjects, including language skills. Steel and Levy (2013) conducted a survey-based study in which they examined the usage of 20 different technologies by 587 students, both inside and outside of language classes, with the specific aim of supporting their language study. Modarresi (2021) found that collaborative output-based tasks are conducive to students' language proficiency. Meanwhile, according to Barbulet (2023), although practitioners of CALL emphasize that computer environments can serve as a source of motivation for many teachers, despite the widespread enthusiasm for computers, some teachers may resist their use, which can potentially diminish motivation. Just

recently, Abbasian and Modarresi (2022) examined the significant difference between Adobe Connect and Skype in enhancing listening skills and found that the Adobe Connect group outperformed the Skype group.

Taken together, although a growing number of researchers have argued for a need to employ computer-aided materials, especially online learning in the L2 classroom settings (see Esfijani, 2018) to the best knowledge of the researchers, the number of research conducted in the use of software tools in the Iranian context is not many. Therefore, the present study tried to make use of two computerized tools, including Skype and BigBlueBotton, in the EFL classroom to make oral communication practice more effective during online teaching. Skype is a free videoconferencing application that can be downloaded and operated through a peer-to-peer linking computer over an internet connection for teaching purposes (Karabulut & Correia, 2008). BigBlueButton is a web conferencing platform initially developed for online education. It includes built-in technologies such as chat messaging, live audio and video feeds, and more that make it easy to manage a virtual classroom (Al Hashimi, 2020).

3. Methodology

3.1. Participants

A pool of 32 students from an English private institute in Bojnord, Iran, constituted the study participants based on convenience sampling. Their level of study was pre-intermediate (American File 1). The average age of the students was between 17 to 19. The participants were divided into two "quasi-experimental" classes. They met twice a week for a total of 90 minutes per lesson. Initially, however, the similarity of the participants was determined by their performance on the Oxford Placement Test (OPT). Indeed, to ensure homogeneity in terms of proficiency level, the researchers selected only those students who scored at a pre-intermediate level on the OPT test used in this study. The final count of students who stayed to take part in this study was 32 after ensuring they were all homogeneous. Additionally, the qualitative segment of the research included nine students who were chosen based on purposive sampling. The data were gathered until no new information was added.

3.2. Instruments

The first instrument employed for measuring the language proficiency of L2 learners was the OPT, a language proficiency test consisting of 60 multiple-choice items on vocabulary and grammar. The test classifies the test takers into four levels of English proficiency based on its scoring criteria: elementary (1-14), pre-intermediate (15-29), intermediate (30-44), upper intermediate (45-50), and advanced (51-60). The present study included volunteers who were classified as pre-intermediate.

The second instrument used to measure communication anxiety was Communication Anxiety in English. In the Iranian context, Khodadady and Khajavy (2013) undertook the translation and validation of eight items from Horwitz's (1986) work. The scale was employed to assess communication anxiety using a 7-point Likert scale, measuring the level of anxiety experienced by participants across various classroom communication settings, with responses ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is "I start to panic when I have to speak without preparation in language class." The alpha reliability coefficient reported for the English scale is .93.

The third and fourth instruments used to measure the learners' speaking skills were the pretest and posttest of speaking skills, which were developed as a teacher-made test, each of which included five questions on speaking skills taken from American English File 1, and the test included English language functions as well. An example of a function test, including a scenario and a multiple-choice answer, is as follows: *Situation*: A visiting student from another university is giving a presentation in the seminar room, but you can't hear him/her very well, as it is quite noisy. What would you say? *Answer:* a) Speak a bit louder, please. b) Excuse me, would you mind speaking a bit louder? c) Can't you talk a bit louder? I can't hear. d) Excuse me, why don't you talk a bit louder? The content validity of the questions was checked by three experts in SLA, who were faculty members of the English department at the Islamic Azad University of Quchan and Bojnord. The tests were piloted before they were employed. The reliability coefficients of .72 and .78 obtained for the pretest and posttest showed good values.

The last instrument used to explore the students' perspectives on the role of BigBlueButton and Skype in improving their oral communication skills was the semi-structured interview questions, which were designed by the researchers of the current study. Three experts in the field of ELT who taught English courses at the Islamic Azad University of Quchan and Bojnord checked the content validity of the questions.

3.3. Procedure

3.3.1. Data Collection

The study adopted a sequential mixed-methods study and had a simple protocol that the researchers followed. Students' language proficiency was normalized using OPT before the treatment period. Then, two groups of 16 students were formed at random. Prior to the treatment, the students completed the communication anxiety questionnaire. In addition, their speaking performance was assessed using a pretest of speaking skills.

Students who had access to online resources had to install the necessary software or application on their personal computer or laptop in order to utilize computer-assisted materials, which encompassed text, audio, and test solutions simultaneously. The instructor, who was one of the researchers of the study, collaborated with the students on the educational audio clips chosen from their course textbook while the students engaged in internet-based activities to enhance and evaluate their vocabulary proficiency.

The students in Group A (N = 16) used the BigBlueButton program, while Group B (N = 16) used the Skype application. The teacher used the online application to provide lessons for the speaking parts of the textbook "American File" that both classes worked on. In both groups, the teacher worked with the students on exercises and assignments throughout the class, aiming to accurately reproduce the dialogue from the audio clips. All of the students were native Persian speakers, so the teacher first explained to them the application tools for further use. While students attended the 90-minute online classes twice a week throughout the treatment period, they only engaged in these speech-focused exercises for the last 30 minutes of each session.

During the treatment, several components within the BigBlueButton were used in the class, including the ability to upload PowerPoint slides, share a single window or the entire desktop with meeting attendees, send text messages to all or selected attendees, and share files from users' computers. Meanwhile, the components of Skype that were used in the class included video messaging, instant messaging, file sharing, and screen sharing. After the phase of treatment, the teacher then gave both groups of students the posttest on speaking skills, and at the end of the intervention period, they were also provided with the communication anxiety questionnaire. Two raters scored the student's pre-and posttest performance to ensure inter-rater reliability estimates.

3.3.2. Data Analysis

As for the first and second objectives of the study, the researchers ran ANCOVA to compare the significant difference between the two groups while controlling the pretest scores as covariance. As for the third objective of the study, the researchers applied specific interview analysis techniques to the qualitative data collected from the open-ended interview questions and interviews (Dörnyei, 2007). First, we used thematic categorization to organize and classify the information gathered from our open-ended questions, looking for recurring themes and similarities. Transcription was a method for organizing large amounts of data. We then sorted the transcript into categories, removing any unnecessary information. The information was sorted into groups based on several criteria, and these categories were then published in English. Following the guidelines proposed by Garrison et al. (2006), the researchers finally determined the inter-rater agreement and inter-rater reliability for coded transcripts.

4. Results

4.1. BigBlueButton vs. Skype and Communication Anxiety

Regarding the first objective of the study, the researchers performed the ANCOVA formula. Prior to conducting One-way ANCOVA, several assumptions needed to be satisfied. Initially, an examination

was conducted to check the general distribution of scores for both experimental groups. There was no evidence of a curvilinear relationship since the linear nature of the relationship indicated that there was no breach in the assumption of linearity. Furthermore, there was no violation of the assumption of homogeneity of regression slopes since the significant value was .35, which was comfortably above the cut-off point.

Table 1

Descriptive Statistics for Both Groups

Group	Mean	Std. Deviation	N
BigBlueButton	33.37	5.81	16
Skype	27.75	6.94	16
Total	30.56	6.91	32

As shown in Table 1, the descriptive statistics for the two experimental groups showed that the BigBlueButton group had a mean score of 33.37 with a standard deviation of 5.81, while the Skype group had a mean score of 27.75 with a standard deviation of 6.91.

Table 2

The ANCOVA Test for the Scores Obtained from Communication Anxiety

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1408.66[a]	2	704.33	271.56	.000	.94
Intercept	.41	1	.41	.16	.691	.00
CA pretest	1155.53	1	1155.53	445.53	.000	.93
Group	68.68	1	68.68	26.48	.000	.47
Error	75.21	29	2.59			
Total	31374.00	32				
Corrected Total	1483.87	31				

a. R Squared = .949 (Adjusted R Squared = .946)

As displayed in Table 2, the results of ANCOVA confirmed that there was a significant difference in the student's scores on communicative anxiety for participants in the BigBlueButton group and Skype group after adjusting for scores on the pretest conducted prior to the intervention. Indeed, the significance value was .00, which was less than .05. Upon comparing the mean scores of both groups, it was evident that there was a significant difference between the Skype group and the BigBlueBottom group in terms of communication anxiety following the intervention.

4.2. BigBlueButton vs. Skype and Oral Communication Skills

Regarding the second objective of the study, the researchers performed the ANCOVA formula. Prior to conducting One-way ANCOVA, several assumptions had to be met. Initially, an examination was conducted to check the general distribution of scores for both experimental groups. There was no evidence of a curvilinear relationship since the linear nature of the relationship indicated that there was no breach in the assumption of linearity. Furthermore, there was no violation of the assumption of homogeneity of regression slopes since the significant value was .20, which was comfortably above the cut-off point.

Table 3

Descriptive Statistics for Both Groups

Group	Mean	Std. Deviation	N
BigBlueButton	12.93	1.69	16
Skype	14.31	2.05	16
Total	13.62	1.97	32

As displayed in Table 3, the descriptive statistics for the two experimental groups showed that the BigBlueButton group had a mean score of 12.93 with a standard deviation of 1.69, while the Skype group had a mean score of 14.31 with a standard deviation of 2.05.

Table 4
ANCOVA Test for the Scores Obtained from Oral Communication Skills

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	112.72[a]	2	56.36	186.23	.000	.92
Intercept	14.94	1	14.94	49.38	.000	.63
SS pretest	97.59	1	97.59	322.48	.000	.91
Group	30.14	1	30.14	99.61	.000	.77
Error	8.77	29	.30			
Total	6062.00	32				
Corrected Total	121.50	31				

a. R Squared = .928 (Adjusted R Squared = .923)

As shown in Table 4, the results of ANCOVA confirmed that there was a significant difference in the student's scores on oral communication skills for participants in the BigBlueButton group and Skype group after adjusting for scores on the pretest conducted prior to the intervention. Indeed, the significance value was .00, which was less than .05. Upon comparing the mean scores of both groups, it was evident that the Skype group outperformed the BigBlueButton group following the intervention.

4.3. Content Analysis of the Responses Obtained from the Interviews

Concerning the third objective of the study, the researchers conducted interview sessions with the participants, utilizing theme-based categorization and following the data saturation method. Nine EFL learners were chosen based on convenience sampling, and the students were interviewed to find out in-depth information.

The commonalities that emerged from the students' responses revealed that it was a novel experience and a challenging task to learn new words, and they could work on speaking skills since they could focus on the task. However, they were not happy with the internet speed and inadequate access to computer-aided tools such as smartphones and laptops. Altogether, they believed that Skype as an online platform is better than BigBlueButton because the teacher can upload different media to Skype and break out rooms to improve students' comprehension and ask them to practice new vocabulary in different activities.

After that, the researchers assessed the inter-coder reliability of the data collected from the interviews conducted with the learners regarding their reactions to the use of online applications. After completing the coding process, the first researcher shared the coded data with her supervisor, who served as the secondary researcher. Subsequently, the second researcher coded the responses by identifying shared characteristics and arrived at broadly comparable findings, albeit with slight variations. The inter-coder agreement of the findings was ensured as both coders reached the same conclusion. According to the suggestions put forth by Campbell et al. (2013), the researchers initially calculated the proportion of coding agreements in relation to the overall number of agreements and disagreements. This calculation yielded an inter-rater reliability of 66 percent. Fourteen frequent themes were identified, with at least one researcher applying a code to each. Among these themes, nine occurrences were identified when both coders had used the same code. Hence, the inter-coder dependability would have been 66% based on nine out of 12 calculations, resulting in a value of 0.66. Hence, the data analysis revealed nine distinct codes encompassing the common themes in the responses (see Table 5).

The most prevalent themes identified in the student's answers to the interview questions about the role of online learning on speaking skills were: novel, challenging, motivating, less stressful, helpful, low internet speed, lack of equipment, and time-consuming.

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Table 5
Some Excerpts Emerged from the Interviews

Participants	Excerpts	Themes
Interviewee A	The experience was new since we were not accustomed to technological-based activities in the class.	Novel
Interviewee B	The works on the learning tasks by means of computerized tools were interesting but difficult.	Challenging
Interviewee C	The experience was stimulating for me as I could see the new words in the texts clearly provided by the application.	Motivating
Interviewee D	Since there is no face-to-face interaction, I can speak with more comfort at home through the software.	Less Stress
Interviewee E	I already thought that online learning was not practical, but step by step I realized it was useful.	Helpful
Interviewee F	Employing computerized tools was a bit dull since there was no face-to-face interaction.	Low Interest
Interviewee G	An issue that arose was the inconsistency in internet speed and connectivity disruptions.	Speed
Interviewee H	Nevertheless, the requirement for additional equipment posed a slight issue, resulting in a lack of access to computer-aided tools such as smartphones and laptops.	Lack of Equipment
Interviewee I	To me, we are not accustomed to practicing language by means of online courses, and I myself tried to exert more effort, but it was a bit time-consuming to get acquainted with the virtual environment.	Time-Consuming

5. Discussion

The findings from the present investigation revealed a significant difference in communication anxiety among EFL students who were exposed to various internet-based applications. Notably, there was a significant difference between the Skype group and the BigBlueBottom group in terms of communication anxiety. Additionally, there existed a significant difference in the oral communication skills of the EFL students who were exposed to various internet-based applications. The Skype group demonstrated superior performance compared to the BigBlueButton group. Furthermore, the interviews conducted with the students unveiled nine shared factors. Recently, there has been an increased focus on CALL programs and resources in the realm of second language teaching and learning. Lai and Kritsonis (2006) suggest that while task-based materials have been studied in SLA, there are numerous areas of potential synergy that merit further exploration, including computer-aided materials with an emphasis on learner-centered education. It is possible to further enhance computer-aided materials to address a segment of education that has been largely neglected thus far: computer-aided education.

Concerning the first objective of the study, the results revealed that there was a statistically significant difference between BigBlueButton and Skype in terms of communication anxiety. The findings of this research align with Liu's (2017) previous study, which demonstrated a negative correlation between foreign language anxiety and class participation willingness. Additionally, Khajavy et al. (2016) also found a negative link between foreign language anxiety and English language communication willingness. The findings of the research align with Liu's (2006) previous study, which discovered that students' reluctance to communicate stemmed from foreign language anxiety. MacIntyre and Gardner's (1994) study also revealed that anxious students' fear of making mistakes and lack of confidence made them feel uneasy and diminished their enthusiasm to participate. Similarly, Manipuspika's (2018) study confirmed that classroom anxiety had a negative impact on students' performance. Additionally, Liu and Jackson's (2008) study demonstrated that more than one-third of the students experienced high anxiety when speaking in public during their English class, primarily due to their apprehension of being evaluated by others.

As for the second objective of the study, the obtained results indicated that there was a statistically significant difference between BigBlueButton and Skype in terms of oral communication skills. As noted by Lamy and Goodfellow (1999), the idea that computer-aided programs can serve as scaffolding

to provide learners with effective instruction is intriguing and warrants additional investigation. The findings of this study align with previous research, such as the study conducted by Fotos and Browne (2004), which demonstrated the positive impact of online teaching on language learning. EFL learners, commonly referred to as "digital natives" (Prensky, 2001), are well-versed in various technological devices, such as computers and mobile phones, which they utilize to connect with friends and conduct online searches. The COVID-19 pandemic has further amplified this trend, as online classes and platforms have become essential for teaching and learning. Consequently, the utilization of online software and applications has gained significant popularity among learners, enabling them to attend English classes virtually. According to the research conducted by Preece et al. (2002), the combination of teacher support and feedback from computer-based systems plays a significant role in facilitating learning. The results of the study confirmed that computer-aided learning enhances learning a second language, which is an indication of recent language teaching with the shift from contrived conversation to real-life interaction. Similarly, Kern and Warschauer (2000) concluded that the development of L2 pedagogy in CALL has created a teaching environment according to which the target language is acquired through online learning.

As for the third objective of the study regarding the students' perceptions of the role of BigBlueButton and Skype in improving their oral communication skills, the results obtained from the interviews revealed that factors such as novelty, motivation, helpfulness, and less stress are important in fostering oral communication skills so that the students are eager to use computer-aided tools and resources. Additionally, the themes that emerged from the interviews revealed that online learning provides a challenging environment for EFL learners, surpassing traditional text-based instruction. This perspective is supported by earlier research carried out by Cameron (1999) and Lambropoulos et al. (2006), who concluded that computerized methods enhance interactive learning opportunities. The results of the interviews showed that the use of applications is motivating, which can increase learners' active motivation in the virtual classroom, which has also been stressed by Anwaruddin (2013). The results from the interviews indicated that in the context of Iran, the new generation is becoming increasingly interested in technological tools such as tablets and laptops and social networks such as Telegram and Skype. The usefulness of computerized tools and internet-based materials for language learning has recently been accentuated by educators in the Iranian context. In the same vein, the obtained results are in line with the qualitative research carried out by Al-Badi and Khan (2022), who concluded that providing learners with software tools is helpful.

The current study concentrated on online teaching and confirmed that technological tools could improve students' oral communication skills so that they can seamlessly incorporate these tools into their personal lives, enabling them to acquire knowledge regardless of their location or the time of day. The use of technological tools to speed up daily transactions has strengthened the use of computer-aided materials in various important areas of life, including academic settings.

The results of the study confirmed that computer-aided learning enhances learning a second language, which is an indication of recent language teaching with the shift from contrived conversation to real-life interaction. In this regard, Kern and Warschauer (2000) concluded that the development of L2 pedagogy in CALL has created a teaching environment according to which the target language is acquired through online learning. Additionally, the study provides a deeper understanding of the applicability of CALL resources and activities that can serve as a motivating factor and can make students participate actively in the virtual classroom, which has also been stressed by Anwaruddin (2013). The results from the interviews indicated that in the context of Iran, the new generation is becoming more and more interested in technological tools such as tablets and laptops and social networks such as Telegram and Skype, and they are using their tablets in their classrooms and there are schools that are equipped with new computer-aided materials such as Smart Kapp which is the newest in digital whiteboards. The use of technology-enhanced tools has opened up numerous possibilities for teaching L2 target vocabulary. This study delves deeper into the role of online learning in the Iranian context, examining students' learning progress. The findings suggest that both teachers and students are interested in incorporating technology, particularly internet-based applications, for English language learning. However, the interviewees emphasized the importance of combining human resources with

computer-aided resources. As Yaghooty et al. (2015) rightly concluded, it may take at least another fifteen years for Iran's culture to fully embrace the replacement of EFL teachers with technology.

This study strengthens the idea that students who possess computer knowledge, internet access, and typing skills tend to excel in developing their language abilities. It is most likely that students who are well-versed in computer-assisted tools can have a higher success rate in international language proficiency exams like TOEFL iBT. This is because these exams require students to respond to questions on a computer, and their familiarity and proficiency with computer software greatly contribute to their performance. Indeed, listening skills enhance students' language ability since they can make use of the software facilities to integrate language skills and language components, raise their awareness of work knowledge, and improve their vocabulary repertoire.

The findings from this study have important implications for EFL learners and teachers. Second language learners are advised to enrich their oral communication skills through internet-based platforms, which are novel and challenging and can elevate the level of their engagement with online learning activities and tasks. EFL learners are recommended to gain mastery over software tools so that they can interact with new applications and artificial intelligence, which can provide a positive environment for learning English. EFL teachers are suggested to make use of computer-aided tools to collaborate and communicate more effectively with the students and their colleagues, regardless of their location. They can gain more teaching experience and complement their instructional methodology by means of blended learning.

Although this study offers some informative insights, it has a number of limitations. First, care should be taken in terms of the external generalizability of the findings since the sample is not representative of all pre-intermediate EFL learners. Moreover, longitudinal research can investigate the extent to which online teaching can foster oral communication skills. Second, due to the limited number of students available, the study included no control group. Actually, while the use of a control group is typically recommended, in some circumstances, the inclusion of a control group might not be possible for practical reasons (Mackey & Gass, 2016; Plonsky, 2017). The present study examined the effectiveness of online tools on EFL students' communication anxiety and oral communication skills. Research needs to be done in relation to other language skills and language components to find out the impact of internet-based applications on language development. Further research is recommended to examine the effect of new internet-based activities and guided discovery on the learners' willingness to communicate. Finally, another research may examine the moderating effect of language proficiency level on the relationship between online learning and L2 performance to delve into the role of language proficiency in using internet-based applications.

Disclosure Statement

The authors claim no conflict of interest.

Funding

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