

The Role of ICT in Enhancing Speaking Skills in Extramural English Context

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ABSTRACT

Information and Communication Technology (ICT) has played a pivotal role in education, particularly in English Language Teaching (ELT), by simplifying students' learning process and facilitating teachers' teaching strategies. Numerous ICTs have been utilized and found effective in enhancing speaking skills not just constrained in the confines of the classroom. Thus, this literature review delves into the multifaceted role of ICT in enhancing students' speaking skills within the unique realm of Extramural English (EE). By synthesizing several relevant studies published within the last 10 years, it navigates through various ICT tools to enhance speaking skills, illuminating the manifold benefits of ICT in EE. The findings underscore the significance of ICT tools such as videoconferencing platforms, Automatic Speech Recognition (ASR), social media, and digital games to enhance students' speaking skills. The effectiveness of ICT is heightened when integrated into EE activities, which fosters an autonomous learning process, including independent and self-directed learning. Consequently, teachers are highly recommended to provide more opportunities for students to engage in various ICTs in EE.

Keywords: ICT, Extramural English, Speaking Skills

INTRODUCTION

The integration of technology into educational environments has altered traditional pedagogical approaches and created novel avenues for student engagement (Rusmiyanto et al., 2023). This paradigm shift is particularly evident in language education where a diverse range of ICT tools, such as YouTube, language learning platforms, social media, podcasts, and songs have become integral components of the language learning experience. The extensive use of ICT has brought about significant advancements in English learning styles and increased learning and teaching conveniences. According to Rintaningrum (2023), ICT tools allow students and teachers to access internet resources, make use of various computer programs, receive up-to-date information, translate, have the chance to use multimedia presentations, demonstrate new teaching methods, practice coding, do online learning, take online quizzes or exams, speed up their response times, raise their English test scores, pick up another language,

engage in collaborative learning, promote individual learning, and provide chances for speaking, writing, listening, and reading in English. Hence, ICT plays a pivotal role in accomplishing the target language effectively.

Moreover, the integration of ICT also boosts students' motivation by increasing their exposure to authentic materials. Mestari (2016) and Widyastuti (2017) argue that students are motivated to learn the language when it is integrated with authentic materials because it enables them to interact with actual language and content rather than just its forms, such as grammar and vocabulary. Thus, students' learning is more adaptive and interactive when the lesson is taught using ICT as it promotes more opportunities for students to be exposed to various authentic materials. Introducing materials through ICT can also increase their authenticity because learners are frequently exposed to authentic materials via computers and mobile devices (Borucinsky & Jelčić-Čolakovac, 2020). As ICT integration allows teachers to diversify their teaching and learning activities, it can progressively shift the teaching style from teacher-centered to student-centered. The use of ICT fosters the creation of collaborative and interactive learning environments, enabling teachers to utilize various platforms for facilitating group projects, discussions, and collaborative activities. Consequently, this digital learning motivates students to actively engage in their learning process, particularly in enhancing English language skills.

In the realm of speaking as the most demanding English skill, ICT integration seems to be even more vital as a valuable tool to enhance oral language use. According to Khanh (2021), insufficient materials and authentic inputs also hampered the difficulty in teaching and practicing speaking. Thus, integrating ICT with speaking skills becomes even more crucial as it allows students to access a wide range of authentic materials. Brahim & Nesba (2019) who found the effectiveness of ICT in speaking skills enhancement, argue that ICT is crucial for teaching speaking skills because it brings the outside world into the classrooms. Similarly, Nilayon & Brahmakasikara (2018) posit that the utilization of ICT fosters students' speaking skills and confidence. This underscores that ICT has been a very valuable learning support in teaching speaking skills. Conversely, Idayani & Sailun (2017) found that, although the majority of students affirmed the effectiveness of ICT in their speaking practice, some others thought that the teachers' method in the classroom could be ineffective. This indicates that teaching speaking skills by utilizing ICT may have distinctions in different situations and contexts.

Although numerous studies have found the effectiveness of ICT to enhance speaking skills in the classroom context, understanding its effectiveness in the outside classroom context is also crucial. Maristy (2023) argues that, in contrast to the experience of learning English in a classroom setting, engaging in English activities outside of the classroom may provide more authentic and meaningful conversations. Thus, this learning environment fosters a practical application of language skills that extends beyond the structured confines of traditional educational environments. Learners can easily be engaged in English learning not just when they are taught in the classroom, but they are seen as more willing to learn English out of classroom activities, known as Extramural English (EE).

Extramural English is prominent to facilitate students' learning that is often limited in the classroom context. Dincer & Yesilyurt (2017) assert that speaking skills remain challenging because the skills are not truly the main focus and are often neglected by EFL students to learn English at school. Liew & Aziz (2022) further argue that although teachers acknowledge the essential need to teach speaking skills, many find it a challenging task. This is because speaking skills are considered one of the most difficult elements of language learning (Leong & Ahmadi, 2017). It indicates that learning speaking skills should accommodate more efforts from both teachers and students. However, Timpe-Laughlin et al. (2022) note that EFL students face limitations in practicing their speaking skills due to time constraints in the classroom and difficulty in seeking extramural interlocutors. Hence, teachers should be willing to allow students to learn English extramurally by integrating various ICT tools.

Lee & Hsieh (2019) suggest that contemporary EFL students may have a higher willingness to communicate (WTC) with digital methods of communicating than with conventional offline approaches in both intramural and extramural contexts. In a similar vein, Malyndra et al. (2020) found that students who participated in social media as one of the EE activities not only boosted their willingness to communicate but also aided in enhancing their English proficiency and broadening their vocabulary mastery. This illuminates that ICT integration is beneficial to enhance EFL students' WTC and promote language skills proficiency. However, studies focussing on the impact of EE on speaking skills are still scarce. This emphasizes the need to delve deeper into its connection with technology and its impacts on specific language skills, in particular speaking skills.

Therefore, this literature review suggests that the utilization of Information and Communication Technology (ICT) can effectively enhance students' speaking skills in the context of Extramural English (EE). It aims to explore various ICT tools that can enhance speaking skills and evaluate as well as conceptualize the significance of EE in promoting the efficacy of ICT by providing a comprehensive analysis of the existing literature. Thus, there are two research questions proposed in this literature review:

1. What are ICT tools that can enhance students' speaking skills?
2. How does ICT enhance students' speaking skills in Extramural English?

LITERATURE REVIEW

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

The term Information and Communication Technology (ICT) refers to the application of various technology resources and instruments that cover a wide range of electrical gadgets, software programs, and platforms for digital communications. Raval (2014) defines the term ICT as innovative sources encompassing management practices based on science, technology, and engineering that maximize the use of time and space for information storage and transmission systems in comparison to conventional practices. It allows for effective and more flexible time management for students and teachers, leading to pleasurable learning.

In the educational field, ICT has brought about significant influence to reach learning objectives. Ammade et al. (2018) agree that technology-based tools including laptops,

computers, web 2.0 platforms (blogs, YouTube, wikis), software, and hardware applications have been hailed as excellent instruments for transforming and reforming education. In line with this, Oktalia et al. (2018) argue that the field of Information and Communication Technology (ICT) encompasses a wide range of technological tools utilized to disseminate, manipulate, retain, and transmit data in the form of various applications and services. This indicates that ICT integration can simultaneously accommodate the teaching and learning process, providing suitable materials to achieve more effective educational purposes.

The use of ICT in education is commonly thought to promote a more constructivist approach to learning, which, in turn, enhances student involvement and fosters a sense of responsibility (Mikre, 2011). Students are more likely to become independent learners when ICT is integrated into their educational process. Similarly, research by Joshi & Poudel (2019) supports the idea that ICT significantly promotes students' learning independence and motivation, particularly in the context of learning English. Fostering learner autonomy and independence within the educational setting can be achieved by integrating ICT into classroom instruction and encouraging students to participate in self-directed study, as conventional teaching methods alone are no longer sufficient. Stockwell (2016) argues that ICT plays a pivotal role in fostering innovation and motivation among students. Language learning can often be perceived as challenging and dull, leading to students struggling to sustain their motivation and interest (Sari & Ningsih, 2022). Consequently, the utilization of ICT is a suitable solution for addressing these challenges. ICT provides students with innovative, flexible, and accessible media, which not only triggers independence in learning but also equips students with a valuable skill that benefits them throughout their formal education and into their future lives.

EXTRAMURAL ENGLISH

Extramural English (EE) or “English outside the walls” refers to the English language that students encounter or engage in beyond the confines of the classroom setting (Sundqvist, 2009). This EE is involved in social interactions, work, and everyday activities such as watching movies, chatting, gaming, surfing the internet, listening to songs, and others (Sundqvist, 2009; Ebadi et al., 2023). EE as natural learning has bridged the gap between rigid learning processes in traditional teaching approaches. This is because, in the EE context, students are not compelled to learn and use English as they are in traditional classrooms. Hence, learning in EE has been considered a significant way of enhancing language proficiency naturally. A study by Uztosun & Kök (2023) notes that EE can offer a unique learning experience characterized by independence, self-direction, and unintentional language acquisition. This practice is believed to provide naturalistic, personal, authentic, and meaningful language learning environments (Richards, 2015; Lyrigkou, 2019). It fosters a more engaging and effective language learning environment since the focus is on practical language use, personalization, and real-world experience. EE, on the other hand, provides advantages in terms of resolving restrictions in language teaching classrooms, including material, time constraints, and the level of student involvement and motivation (Leona et al.,

2021). Furthermore, according to Lai et al. (2015), EE has the potential to improve overall language competency as well as learning outcomes. This supports that EE is essential in promoting the students' language skills, particularly speaking skills.

However, many students receive fewer opportunities and focus on the use of extramural to enhance their language skills (Richards, 2015; Lyriqkou, 2019), such as individual adherence to homework or out-of-classroom activities set by the teacher in more traditional language practice, and students only perceive the opportunity to gain EE through a limited variety of sources such as through songs and few smartphone applications (Lyriqkou, 2019). This situation limits students' opportunity to acquire English using many different strategies and experiences of learning. Dincer & Yesilyurt (2017) support that acquiring English in countries where it is considered a foreign language and where opportunities for EE practice are scarce, presents a formidable challenge that necessitates intentional effort on the part of language learners. Accordingly, Lyriqkou (2019) contends that with ICT progress and swift internet access, language learners now have the opportunity to interact using the target language through a diverse array of resources, including online television, digital games, mobile apps, and social networking platforms. They are not confined to using traditional textbooks or language-learning apps explicitly created for educational purposes. Hence, ICT helps students overcome daily challenges to accessing the target language in EE.

SPEAKING SKILLS

Speaking as one of the language skills besides listening, reading, and writing, enables individuals to engage with one another and subsequently transmit the appropriate information through oral discourse. Brown (2000) defines speaking as a process of interaction to construct meaning which entails producing, receiving, and processing information. McDonough & Shaw (2003) further argue speaking is used as a purpose-driven to deliver willingness to achieve a specific aim, including expressing ideas and opinions, expressing a wish or a desire to do something, negotiating and/or solving a particular problem or establishing and maintaining social relationships and friendships. It can be concluded that speaking is one of the primary language skills used as the main way to communicate among people. People can deliver their desires and get responses in the form of speaking. Furthermore, Brown (2001) states that the success of foreign language learners in accomplishing and achieving their learning goals can be seen when they can interact with other learners of the language orally. It shows a pivotal role of speaking in the learning target. Hence, students should prioritize the development of proficiency in speaking skills when learning English.

Concerning the proficiency of speaking skills, students should focus on all components of speaking skills. Heaton (1988) categorizes the components of speaking skills into three, namely fluency, accuracy, and comprehensibility. Stockdale (2009) argues that fluency is achieved when someone speaks a foreign language like a native speaker, minimizing silent pauses, filled pauses, self-correction, false starts, and hesitations. Therefore, speakers are considered fluent when they speak as clearly as possible with minimal use of pauses. Additionally, accuracy is another crucial aspect of speaking skills, involving the use of vocabulary, grammar, and pronunciation (Derakhsan et al., 2016). Speakers can be deemed

accurate if they demonstrate proficiency in using correct vocabulary, grammar, and pronunciation. Meanwhile, comprehensibility is the ability to understand a language with reasonable ease. Brown (2004) asserts that speaking comprehension is competence in using normal communication, stress, intonation, grammatical structure, and vocabulary of a language to express meanings, making it comprehensible to others. This competence can be observed directly and empirically. Thus, comprehensibility is essential for meaningful oral communication.

TEACHING SPEAKING SKILLS

There are various ways of teaching speaking skills that can be performed by teachers such as role-playing, drilling, and debate. Role-playing is an instructional strategy in which students take on specific roles or characters in simulated events or dialogues to practice and enhance their speaking skills. Students are assigned parts to perform and related scenarios or events that demand them to participate in verbal exchanges as if they were the characters they are playing. According to Karomat & Xadicha (2021), role play is an essential strategy in teaching speaking because it allows students to experience talking in a variety of social circumstances and social roles, leading to speaking skills enhancement.

Drilling, as Thornbury (2005) argues, is a practice for improving pronunciation by imitating and repeating words, phrases, and even entire utterances, with the primary goal of directing students' focus toward new content. This aids in emphasizing specific linguistic elements, facilitating the transition of information from short-term to long-term memory, and providing a means to acquire better control over language articulation.

Another common strategy is debate. Debate strategy is a planned approach used in a debate to present arguments effectively, counter opposing viewpoints, and persuade the audience or judges. El Majidi et al. (2021) define debate as a strategy that promotes extensive verbal communication, wherein participants challenge each other's viewpoints and compete to excel in their speech delivery and argument framing. Consequently, debate can enhance overall language skills, as it requires debaters to articulate and defend their arguments effectively, fostering meaningful communication. El Majidi et al. (2021) found that students who used the debate strategy performed better speaking in terms of fluency, accuracy, and comprehensibility when compared to the students who did not.

However, teaching speaking skills also presents challenges, especially in EFL classes where students often have limited opportunities to engage in speaking activities. According to Dincer & Yesilyurt (2017), speaking is still regarded as a neglected language skill in EFL classrooms. In a similar vein, Timpe-Laughlin et al. (2022) note that individual speaking practice is frequently constrained within the classroom. Therefore, it is essential to promote speaking activities that focus on extramural contexts to enhance speaking skills. Furthermore, they emphasize the importance of integrating ICT to provide more opportunities for interaction and motivation among students (Timpe-Laughlin et al., 2022). The integration of ICT is also found effective in enhancing all components of speaking skills, including fluency, accuracy,

and comprehensibility (Akkara et al., 2020). This strategy has also been shown to effectively address students' speaking difficulties, such as nonverbal cues, accurate articulation of English sounds, modulation of speech, confidence, and the use of accurate vocabulary (Hamad et al., 2019). Consequently, ICT has demonstrated its pivotal role in improving speaking skills which is not only constrained in the classroom. This drives the exploration of various ICT tools that can facilitate speaking skills enhancement.

METHODOLOGY

The study belongs to a literature review. To begin the study, the researcher formulated the research questions and objectives and also defined specific keywords, such as ICT, speaking skills, and Extramural English. Following that, the researcher used a qualitative approach to collect data from well-known journal article databases, such as Elsevier, Taylor & Francis, ERIC, Sage Journals, and Google Scholar. The review also concentrated on a specific time of the previous 10 years to ensure that current and relevant articles were included. Finally, the researcher analyzed matters, themes, and discussions within the literature. The main focus of the analysis was to provide a comprehensive review of the effectiveness of various ICT tools in enhancing speaking skills in Extramural English.

FINDINGS & DISCUSSION

ICT TOOLS TO ENHANCE SPEAKING SKILLS

After conducting a comprehensive analysis of relevant literature from reputable journal databases, such as Elsevier, Taylor & Francis, ERIC, Sage Journals, and Google Scholar, the researcher found four valuable and effective ICT tools that can enhance speaking skills. These tools include videoconferencing platforms, Automatic Speech Recognition (ASR), social media, and digital games. Furthermore, the researcher integrated and synthesized relevant literature that provides evidence for the significance of ICT in enhancing speaking skills in Extramural English.

a. Videoconferencing platforms

Videoconferencing platforms have been seen as a way to help students improve their language abilities, which is also thought to be the best for teaching speaking skills (Omidvar & Bahadorfar, 2014). They argue that by utilizing videoconferencing platforms, students can connect with friends, other students, teachers, and even native speakers to improve their speaking skills. In addition, the utilization of videoconferencing platforms increases intercultural awareness, motivation, and level of interaction.

Several studies have affirmed the effectiveness of videoconferencing in enhancing students' speaking skills. Nilayon & Brahmakasikara (2018) found that videoconferencing platforms enhanced students speaking skills and confidence. They argue that this practice could help certain participants with their speaking fluency scores, especially those from the elementary group who had lesser speaking proficiency.

This is because videoconferencing platforms accommodate opportunities for students from all levels to be engaged in real conversation whether with their friends and teachers or along with native speakers. The frequency of students' speaking practice is increased when they utilize videoconferencing platforms. The students could enhance their speaking skills and boost their confidence when utilizing videoconferencing platforms. This is possible because the platforms enable them to overcome their shyness as they feel at ease and more secure speaking on the platform (Nilayon & Brahmakasikara, 2018).

Videoconferencing platforms can also enhance other aspects of speaking skills, this is in line with Sosas (2021) that videoconference is also regarded as an important computer-mediated communication tool for enhancing speaking fluency and accuracy. They contend that students could practice speaking accurately with precise intonation patterns and correct sentences through prior practice before engaging in the actual conversation online. This implies that the platform still provides time for students to correct their speech errors, such as pronunciation, words, or phrases, thus leading to the improvement of their speaking fluency and accuracy. Furthermore, Ibrahim & Hashim (2021) argue that videoconferencing platforms help students to increase their overall speaking skills (i.e., fluency, accuracy, pronunciation, and vocabulary). They assert that videoconferencing particularly affects students' vocabulary and pronunciation development because they tend to be exposed to native-speaker pronunciation and extensive vocabulary. The prominence of enhancing all aspects of speaking skills is significant as it fosters comprehensive, accurate, and effective communication. Another study by Vurdien (2019) also found that students who engaged in virtual interactions through videoconferencing platforms performed better speaking skills than those who participated in traditional face-to-face classes. The study revealed that videoconferencing enables students to enhance their speaking skills by motivating them to gain confidence, negotiate meaning, and generate knowledge. Hence, by organizing videoconferences with native English speakers, experts, or organizations as part of the learning process, students can gain more opportunities to interact orally and enhance their speaking skills.

b. Automatic Speech Recognition (ASR)

The utilization of ASR software in language learning offers a multifaceted approach to improving speaking skills. According to Omidvar & Bahadorfar (2014), Automatic Speech Recognition (ASR) software identifies speaking accuracy and responds with either a compliment like "You're doing great!" or offers students a chance to try again. They add that this software can also be used to assess and offer scores for grammar, pronunciation, understanding, and providing the right forms; for example, if a student mispronounces a word, the learning tool may quickly detect it and assist in correcting it. Thus, this type of ICT tool can promote students' speaking skills. Timpe-Laughlin et al. (2022) who investigated the teachers' perception of the utilization of ASR discovered that the software may offer a stimulating, enjoyable, and safe environment for speaking practice. This can facilitate convenient speaking activities

which then promote speaking skills enhancement. Sun (2023) found that the utilization of ASR technology can enhance students' pronunciation and speaking skills, including comprehensibility and accent. They revealed that automatic speech recognition (ASR) may help students with their spontaneous speech, immediately correct their wrong speech, provide motivation and engagement in the learning process, heighten students' self-awareness, customize personalized feedback, and improve the number of chances for practice. Thus, ASR technology aligns with effective strategies for enhancing students' speaking abilities. The integration of ASR into language education can significantly contribute to the success of language learners and the effectiveness of teaching strategies.

c. Social Media

There are numerous studies have shown the effectiveness of utilizing social media for enhancing speaking skills. Sherine et al. (2020) who investigated the effect of integrating WhatsApp, a mobile app, and informal learning on students' speaking skills, found that the students got better at speaking and felt more positive about their speaking skills. Another study done by Azzahra & Yusuf (2023) discovered that using Facebook significantly improved the speaking skills of young learners. Facebook's features like pictures, videos, groups, and games created a great environment for learning and promoted students' motivation and enthusiasm for learning English. They also felt more confident when practicing speaking on Facebook because they could express themselves without being afraid in front of a physical audience (Azzahra & Yusuf, 2023). In the same vein, AlSaleem (2018) found that Facebook activities effectively influenced the development of oral communication skills of EFL students. He also revealed that social media technologies had the remarkable capacity to connect with and engage audiences spanning the entire globe. Thus, through this platform, students can engage in language activities that transcend geographical boundaries, providing them with a more authentic and culturally diverse language learning experience.

In the realm of social media, although individuals lack the absolute power to exercise full control over their messages, they do have the opportunity to actively add their voice to ongoing conversations and discussions. This enables students to gain an opportunity to increase language acquisition. In addition, by utilizing YouTube as a treatment in EFL class, Ilyas & Putri (2020) found that it enhanced students' vocabulary, pronunciation, grammar, fluency, and overall comprehensibility because it supplied the students' motivation and confidence to participate in speaking activities without being worried of any limitation. Hence, the various social media platforms have contributed to English language acquisition since they offer learning motivation and empower users to convey their desires naturally by communicating in a global context. Indeed, social media sites, aside from communication and entertainment, help students become more self-reliant in learning and improve their speaking skills through online interactions.

d. Digital Games

Games have offered the best solution for the demotivation of EFL students in speaking activities. Kaur & Abdul Aziz (2020) found language games enhance students' speaking skills. It is because the utilization of language games can encourage students' active involvement even though they are initially hesitant to participate in speaking activities. One study by Gozcu & Caganaga (2016) observed that utilizing games yielded advantages such as fostering a sense of satisfaction, diminishing anxiety, and facilitating authentic language use scenarios, thus enhancing language skills (Ebadi et al., 2023). Following the effectiveness of various types of games, digital games are the most prominent. Hwang et al. (2016) argue that game-based learning activities can greatly enhance students' speaking skills if guided by a mobile system. This is because digital language games are constructed with fun and interactive features that contribute to a pleasurable and motivating learning environment. They revealed that digital games facilitated EFL students' speaking skills enhancement in several ways, such as (1) students engaged in frequent practice of EFL speaking and reflected on their speaking; (2) students crafted meaningful sentences and spoke them aloud more accurately and understandably; and (3) students honed their speaking skills in diverse surrounding contexts. This demonstrates that the integration of mobile-guided game-based learning activities is conducive to creating an engaging learning environment that not only motivates students but also cultivates significant advancements in their EFL speaking skills.

Furthermore, students have more opportunities to enhance all aspects of speaking as they continuously practice speaking to accomplish the game. Students challenge themselves to accomplish the game scenarios to make them feel satisfied. This intensifies their need to repeat the game over and over again until they meet satisfying accomplishments. Indeed, this is beneficial in English speaking skills development as students need to continuously practice their speaking to be fluent, accurate, and meaningful. Thus, the role of EE through digital games is essential to promote speaking skills. Suputra (2021) adds that games enhance students' ability to observe language use in specific contexts by providing contextual elements in which language expression is embedded. This exposure can lead to more authentic and natural communication, allowing EFL learners to acquire idioms and other language variations that are often not emphasized in traditional speaking classrooms when interacting with native speakers during gameplay. While numerous studies primarily emphasize the advantages of digital games in enhancing students' vocabulary (Soyoo et al., 2023; Sundqvist 2019; Sylvén and Sundqvist 2012; Jensen, 2017), recognizing the crucial role of digital games in vocabulary development is pivotal for the effective enhancement of speaking skills. Suryanto et al. (2021) highlight that with the mastery of vocabulary, students can speak the language well as it is the fundamental point for students to excel in their speaking skills. Consequently, with students exposed to gamification, teachers are assisted significantly in fostering engaging and effective language learning experiences.

HOW ICT ENHANCES SPEAKING SKILLS IN EXTRAMURAL ENGLISH

Various uses of ICT integration have promoted extensive opportunities for exposure to Extramural English learning which facilitates language acquisition. Soyoo et al. (2023) support that utilizing digital technologies beyond the classroom provides language learners with supplementary learning possibilities. In EE, students receive more opportunities to learn at their own pace without limitations of time or interlocutors as they face in the classroom setting. In a parallel vein, Pun (2013) states that the integration of ICT serves to stimulate students' English language acquisition, foster their communicative proficiency, expand their understanding of English culture, boost pedagogical effectiveness, enrich interaction within the student body and between educators and learners, and establish a favorable classroom atmosphere. With this range of benefits, students' needs go beyond just language skills. The ICT integration in EE facilitates positive learning environments as it contributes to a holistic educational experience.

The use of ICT intensifies EE activities which motivates students to enhance their language skills. This is crucial as in the EFL setting, motivational elements observed outside of the school environment promote genuine collaboration among learners, which is distinct from the typical classroom dynamic (Sundqvist & Olin-Scheller, 2013). Students' motivation in EE activities primarily arises from genuine interests rather than a deliberate intent to learn English. For instance, they might enjoy playing World of Warcraft, dedicating hours to complete in-game quests. Alternatively, they might be fans of Kristen Stewart and Robert Pattinson, leading them to repeatedly watch The Twilight Saga (Sundqvist, 2009; Sundqvist & Olin-Scheller, 2013). Hence, English language learning is positively affected when it is linked to ICT in EE. Sundqvist & Olin-Scheller (2013) further argue that many EFL teachers express a desire to enhance their teaching methods to align, at least to some extent, with extramural activities. As a consequence, it is highly suggested that teachers need to implement this practice where the learning environment is not only limited to in-class context.

ICT integration presents students with a great opportunity to identify the components that align with their unique learning strategies, which conventional methods may have failed to cater to (Richards, 2015). Exploring multiple authentic resources in EE provides students with a variety of new strategies that are engaging and motivating. Maristy (2023) argues that EE can enhance students' self-efficacy, increase students' interest in working abroad, boost students' confidence, enhance students' acquisition of academic vocabulary, enhance learners' second language development even from an early age, enhancing learners' willingness to communicate, and creating students' online learning communities. In a similar vein, Balouchi & Samad (2021) contend that extramural online English learning offers learners the ability to immerse themselves in an active learning environment, interacting with native speakers or fellow learners which may be impossible in their real-life circumstances due to constraints related to time or geography. This implies that students can have prolonged exposure to natural English which is dynamic and relevant to their needs as they can explore the real-world experience of language use anytime and anywhere.

EE activities provide a broader spectrum of opportunities for language usage and the acquisition of a second/foreign language than what is typically found within the confines of a classroom. According to Richards (2015), these activities can allow learners to; 1) develop autonomous learning skills, 2) enhance various aspects of linguistic, communicative, and pragmatic skills, 3) enhance both accuracy and fluency levels, 4) engage in prolonged exposure

to English, 5) utilize a variety of multimedia learning resources, and 6) cultivate the use of communication strategies. These significances of EE activities eventually can promote the efficacy of ICT to enhance speaking skills in the following ways:

1. Develop autonomous learning skills

Autonomous learning is a fundamental aspect that plays a pivotal role in the development of speaking skills. Brahim & Nesba (2019) support that ICT enables students to be autonomous learners yielding to the enhancement of their speaking performance. Similarly with EE as a learning environment, Mehdiyef (2020) argues that students can develop their speaking skills via independent learning through activities such as forming friendships with foreigners, watching English films and listening to English music, playing video games, participating in acting courses, and encountering various scenarios arising from personal and environmental factors. When integrated with ICT, EE enables students to actively engage in these activities, whether through language exchange platforms, online conversations, or self-guided speaking exercises. Thus, by utilizing ICT in EE, students can create autonomous learning to practice their speaking. SBH & Susanti (2021) who found a correlation between students' speaking skills and self-directed learning, revealed that being engaged in a virtual English community promoted students' self-directed learning, concurrently contributing to the development of their speaking skills. They discovered that through self-directed learning, students were also prompted to acknowledge the positive aspects and areas for improvement in their speaking skills. As a consequence, students were motivated to continuously monitor the development of their speaking skills. Thus, this learning environment leads to increasing students' autonomous learning, including independent and self-directed learning, and resulting in the development of proficiency in spoken English.

2. Enhance various aspects of linguistic, communicative, and pragmatic skills

Diverse language exposure in EE activities adds to an expanded vocabulary, enhanced grammatical structures, and increased idiomatic expression familiarity. As students engage with different linguistic situations, they naturally improve their speaking skills by including a broader range of vocabulary and linguistic features in their conversation. Furthermore, EE activities frequently involve real-life communication scenarios. This authentic practical use of language promotes the development of communicative skills, including the ability to convey ideas, engage in discussions, and respond properly to various communication situations. Students may be exposed to a variety of language use in a different culture which allows them to hone their pragmatic skills. This is essential in speaking skills, as Procel et al. (2023) posit that recognizing cultural nuances which includes tone and context significantly affects ELT learning processes and outcomes. Thus, this exposure is instrumental in preparing learners for effective communication in the real world.

3. Enhance both accuracy and fluency levels

In EE activities, the chances for prolonged exposure and interactive communication contribute to the development of both accuracy and fluency in speaking skills. Students can improve their pronunciation, intonation, and speech patterns with constant practice. This is feasible because EE provides a significant opportunity for students to engage in collaborative and peer-supported learning (Richards, 2015). This enables them to get feedback and rectify errors while participating in EE activities, ultimately improving their ability to communicate fluently and accurately in spoken English.

4. Engage in prolonged exposure to the English language

Students' journey toward the development of their speaking skills is consistently facilitated through daily exposure to English. According to Richards (2015), learners can easily engage in conversations with individuals worldwide while waiting for public transportation or during their commute to school. They can practice speaking with flexibility without restrictions on time or location. Such practice exposes them to various accents, dialects, and cultural nuances naturally and conveniently, as they use English to convey their ideas and fulfill specific purposes. In the context of speaking skills, the frequency of practice plays a pivotal role in becoming fluent speakers (Miranda & Wahyudin, 2023). The more students practice, the more proficient and fluent they become. Consequently, building virtual interactions not only refines their social skills with individuals they meet in person but also enhances their ability to engage effectively in online settings.

5. Utilize a variety of multimedia learning resources

The use of various multimedia resources in EE, such as videoconferencing, ASR, social media, and digital games exposes students to a variety of dialects, speech rates, and conversational styles. This exposure helps them adjust to different strategies of English-speaking practice. Simultaneously, this contributes to their capacity to absorb and produce spoken language with clarity in the real context of meaningful communication. Mestari (2016) & Widyastuti (2017) posit that these multimodal resources are invaluable as they mirror real-life language usage, enabling learners to engage with authentic communication. Learners can listen to native speakers from various regions, enhancing their understanding of the language's rich diversity. This exposure helps learners adapt to different communication styles, ultimately refining their speaking skills. Hence, the incorporation of multimedia resources into EE activities not only makes language learning more appealing but also helps students develop practical communication skills that extend beyond the conventional boundaries of language education.

6. Cultivate the use of communication strategies

EE activities foster the development of communication strategies, enabling students to navigate various communication challenges. This includes strategies for effective expression, clarification of ideas, and adaptation of communication styles based on the audience. The diverse interlocutors, including native speakers, allow

students to develop these strategies and increase their language proficiency. This is in line with Mehdiyef (2020) that immersing oneself in multilingual contexts significantly enhances language proficiency. Thus, these strategies are prominent in accomplishing effective spoken communication.

CONCLUSION & SUGGESTIONS

Based on the findings and the discussion, it has been determined that ICT tools, such as videoconferencing platforms, Automatic Speech Recognition (ASR), social media, and digital games, are effective in enhancing speaking skills. The likelihood of obtaining this chance is heightened when students actively engage in Extramural English (EE) activities, which in turn promotes their autonomous learning, including independent and self-directed learning. Considering that EE places a strong emphasis on the effectiveness of ICT to enhance speaking skills, it is not appropriate to limit speaking practice to the confines of the classroom. As a consequence of this, it is highly recommended that teachers include this relatively new learning idea in their teaching practices by including elements of the outside world. This may be successfully achieved by increasing the number of possibilities for students to engage in a wide variety of ICTs in EE activities.

Furthermore, the researcher offers several suggestions for more research investigation in the future. To begin, there is a pressing need for further research to investigate EE activities that might help EFL students enhance their English language competency. These activities should include more than simply the enhancement of speaking skills. Additionally, it is essential to conduct an investigation into the integration of digital EE activities into the curriculum of Indonesia, with a specific focus on creating new methods to integrate these activities seamlessly into the current educational framework.

REFERENCES

- Abdullah, M. Y., Hussin, S., Hammad, Z. M., & Ismail, K. (2021). Exploring the Effects of Flipped Classroom Model Implementation on EFL Learners' Self-confidence in English Speaking Performance. *Studies in Systems, Decision and Control* (Vol. 295, pp. 223–241). Springer. https://doi.org/10.1007/978-3-030-47411-9_13
- Akkara, S., Mallampalli, M. S., & Anumula, V. S. S. (2020). Improving second language speaking and pronunciation through smartphones. *International Journal of Interactive Mobile Technologies*, 14(11), 280-287. <https://doi.org/10.3991/ijim.v14i11.13891>
- AlSaleem, B. I. (2018). The Effect of Facebook Activities on Enhancing Oral Communication Skills for EFL Learners. *International Education Studies*, 11(5), 144. <https://doi.org/10.5539/ies.v11n5p144>

- Ammade, S., Mahmud, M., Jabu, B., & Tahmir, S. (2018). Integrating Technology in English Language Teaching: Global Experiences and Lessons for Indonesia. *International Journal of English Linguistics*, 8(6), 107. <https://doi.org/10.5539/ijel.v8n6p107>
- Azzahra, A. N., & Yusuf, M. (2023). Enhancing of young learners' speaking achievement through the use of Facebook application: a case study in Indonesia. *Multidiscip. Sci. J*, 5, 2023037. <https://doi.org/10.31893/multiscience.2023037>
- Balouchi, S., & Samad, A. A. (2021). No more excuses, learn English for free: Factors affecting L2 learners' intention to use online technology for informal English learning. *Education and Information Technologies*, 26, <https://doi.org/10.1007/s10639-020-10307-z>
- Borucinsky, M., & Jelčić-Čolakovac, J. (2020). Promoting authenticity in the ESP classroom: The impact of ICT and use of authentic materials on reading comprehension. In *5th International e-Conference on Studies in Humanities and Social Sciences: Conference Proceedings. Belgrade: Center for Open Access in Science* (pp. 31-44). <https://doi.org/10.32591/coas.e-conf.05.03031b>
- Brahim, M., & Nesba, A. (2019). Integrating ICT in enhancing students' speaking skills: potentials and limitations. *Socles Review*, 5(12), 306–326.
- Brown, H. D. (2000). *Language assessment: Principles and classroom practices*. New York: Pearson Education.
- Brown, H. D. (2001). *Teaching by Principles: An Interactive Approach to Language Pedagogy*, 2nd ed. New York: Addison Wesley Longman, Inc.
- Brown, H. D. (2004). *Language Assessment: Principle and Classroom Practice*. New York: Pearson Education.
- Derakhshan, A., Khalili, A. N., & Beheshti, F. (2016). Developing EFL Learner's Speaking Ability, Accuracy and Fluency. *English Language and Literature Studies*, 6(2), 177-186.
- Dincer, A., & Yesilyurt, S. (2017). Motivation to Speak English: A Self-Determination Theory Perspective. *PASAA Journal*, 53, 1–25. <https://doi.org/10.14456/pasaa.2017.1>
- Ebadi, S., Amini, Z., & Gheisari, N. (2023). On the relationship between mobile-based extramural activities and vocabulary development of EFL learners: a mixed-method study. *Smart Learning Environments*, 10(1). <https://doi.org/10.1186/s40561-023-00252-y>
- El Majidi, A., de Graaff, R., & Janssen, D. (2021). Debate as a Pedagogical Tool for Developing Speaking Skills in Second Language Education. *Language Teaching Research*. <https://doi.org/10.1177/13621688211050619>
- Gozcu, E., & Caganaga, C. K. (2016). The importance of using games in EFL classrooms. *Cypriot Journal of Educational Sciences*, 11(3), 126-135.
- Hamad, M. M., Metwally, A. A., & Alfaruque, S. Y. (2019). The Impact of Using YouTubes and Audio Tracks Imitation YATI on Improving Speaking Skills of EFL Learners. *English Language Teaching*, 12(6), 191. <https://doi.org/10.5539/elt.v12n6p191>

- Hwang, W. Y., Shih, T. K., Ma, Z. H., Shadiev, R., & Chen, S. Y. (2016). Evaluating listening and speaking skills in a mobile game-based learning environment with situational contexts. *Computer Assisted Language Learning*, 29(4), 639–657. <https://doi.org/10.1080/09588221.2015.1016438>
- Ibrahim, S. K. S., & Hashim, H. (2021). Enhancing English as a Second Language Learners' Speaking Skills through Authentic Videoconferencing. *Creative Education*, 12(03), 545–556. <https://doi.org/10.4236/ce.2021.123037>
- Idayani, A., & Sailun, B. (2017). Roles of Integrating Information Communication Technology (ICT) in Teaching Speaking at the First Semester of English Students of FKIP UIR. *J-SHMIC: Journal of English for Academic*, 4(2), 12–23. [https://doi.org/10.25299/jshmic.2017.vol4\(2\).603](https://doi.org/10.25299/jshmic.2017.vol4(2).603)
- Ilyas, M., & Putri, M. E. (2020). YouTube Channel: An Alternative Social Media to Enhance EFL Students' Speaking Skill. *J-SHMIC: Journal of English for Academic*, 7(1), 77–87. [https://doi.org/10.25299/jshmic.2020.vol7\(1\).4141](https://doi.org/10.25299/jshmic.2020.vol7(1).4141)
- Jensen, S. H. (2017). Gaming as an English Language Learning Resource Among Young Children in Denmark. *CALICO Journal*, 34(1), 1–19. <https://doi.org/10.1558/cj.29519>
- Joshi, K. R., & Poudel, G. P. (2019). Role of ICTs in Promoting Learner Independence and Motivation in English Language Classes. *Interdisciplinary Research in Education*, 4(1), 67–76.
- Karomat, T., & Xadicha, M. (2021). Advantages of Role Play Technique in Teaching Speaking EFL Classes. *Academicia Globe*, 2(12), 14-16.
- Kaur, D., & Abdul Aziz, A. (2020). The Use of Language Game in Enhancing Students' Speaking Skills. *International Journal of Academic Research in Business and Social Sciences*, 10(12). <https://doi.org/10.6007/ijarbss/v10-i12/8369>
- Khanh, C. G. (2021). The Effect of ICT on Learners' Speaking Skills Development. *International Journal of TESOL & Education*, 1(1), 22-29.
- Lai, C., Zhu, W., & Gong, G. (2015). Understanding the Quality of out-of-class English Learning. *TESOL Quarterly*, 49(2), 278–308. <https://doi.org/10.1002/tesq.171>
- Lee, J. S., & Hsieh, J. C. (2019). Affective Variables and Willingness to Communicate of EFL Learners in In-Class, Out-Of-Class, and Digital Contexts. *System*, 82, 63–73. <https://doi.org/10.1016/j.system.2019.03.002>
- Leona, N. L., van Koert, M. J. H., van der Molen, M. W., Rispen, J. E., Tijms, J., & Snellings, P. (2021). Explaining Individual Differences in Young English Language Learners' Vocabulary Knowledge: The Role of Extramural English Exposure and Motivation. *System*, 96. <https://doi.org/10.1016/j.system.2020.102402>
- Leong, L. M., & Ahmadi, S. M. (2017). An Analysis of Factors Influencing Learners' English Speaking Skill. *International Journal of Research in English Education*, 2(1), 34-41.

- Lyriqkou, C. (2019). Not to be overlooked: Agency in informal language contact. *Innovation in Language Learning and Teaching*, 13(3), 237-252.
- Malyndra, D., Drajadi, N. A., & Asrori, M. (2020). Students' willingness to communicate in extramural English activities in digital EFL context: A Narrative Inquiry. *Journal of English Language Education*, 3(1), 49–68.
- Maristy, H. S. (2023). Extramural English as a new reality in ELT: A PRISMA systematic review. *LingTera*, 10(1), 76–86. <https://doi.org/10.21831/lt.v10i1.59882>
- Mcdonough, J., & C. Shaw. (2003). *Materials and Methods in ELT: A Teacher's Guide*, 2nd. UK: Blackwell Publishing.
- Mehdiyev, E. (2020). Opinions of EFL students regarding autonomous learning in language teaching. *Journal of Language and Linguistic Studies*, 16(2), 521-536.
- Mestari, A., & Malabar, F. (2016). The Use of Authentic Materials in Teaching Grammar for EFL Students (Teachers' Perspective). *LLT Journal*, 19(2).
- Mikre, F. (2011). The role of information communication, *Ethiop. J. Educ. & Science*, 6(2), 111- 126.
- Miranda, J. A., & Wahyudin, A. Y. (2023). PRE-SERVICE TEACHERS' STRATEGIES IN IMPROVING STUDENTS' SPEAKING SKILLS. *Journal of English Language Teaching and Learning*, 4(1), 40-47.
- Nilayon, N., & Brahmakasikara, L. (2018). Using Social Network Sites for Language Learning and Video Conferencing Technology to Improve English Speaking Skills: A Case Study of Thai Undergraduate Students. *Journal: Language Education and Acquisition Research Network Journal*, 11(1), 47–63.
- Oktalia, D., Ngadiso, & Supriyadi, S. (2018). Integrating ICT in English language learning: Students' perceptions of a state university in Jambi province. *International Journal of Language Teaching and Education*, 2(1), 49–59. <https://doi.org/https://doi.org/10.22437/ijolte.v2i1.4529>
- Omidvar, R., & Bahadorfar, M. (2014). Technology in Teaching Speaking Skill. *Acme International Journal of Multidisciplinary Research Review*, 2(4), 9–13.
- Procel, G. J. O., Tacuri, M. A. P., López, K. A. L., & Criollo, P. I. C. (2023). The Influence of Cultural Context on English Teaching. *Ciencia Latina Revista Científica Multidisciplinar*, 7(4), 784–800. https://doi.org/10.37811/cl_rcm.v7i4.6920
- Pun, M. (2013). The use of multimedia technology in English language teaching: A global perspective. *Crossing the border: International journal of interdisciplinary studies*, 1(1), 29-38.
- Raval, M.R. (2014). Use of ICT in English language teaching. *International Journal of Research in all Subjects in Multi Languages*, 2(2), 21-24.
- Richards, J. C. (2015). The changing face of language learning: Learning beyond the classroom. *RELC Journal*, 46(1), 5–22. <https://doi.org/10.1177/0033688214561621>

- Rintaningrum, R. (2023). Technology integration in English language teaching and learning: Benefits and challenges. *Cogent Education*, 10(1). <https://doi.org/10.1080/2331186X.2022.2164690>
- Rusmiyanto, Huriati, N., Fitriani, N., Tyas, N. K., Rofi'i, A., & Sari, M. N. (2023). The Role of Artificial Intelligence (AI) in Developing English Language Learner's Communication Skills. *Journal on Education*, 6(1), 750–757.
- Sari, M. N., & Ningsih, P. E. A. (2022). An Analysis of Motivation and Anxiety on Learning English at SMA Negeri 6 Kerinci. *Pendekar: Jurnal Pendidikan Berkarakter*, 5(3), 181-188.
- Sayin, B. A. (2015). Considerations on Speaking Skills: Essence of Learning and Teaching Speaking. *Sino-US English Teaching*, 12(11). <https://doi.org/10.17265/1539-8072/2015.11.004>
- SBH, R. T. A., & Susanti, A. (2021). The Correlation between Students' Speaking Skills and Self-Directed Learning in Virtual English Community. *Paramasastra: Jurnal Ilmiah Bahasa Sastra dan Pembelajarannya*, 8(2), 146-163.
- Sherine, A., Seshagiri, A. V. S., & Sastry, M. M. (2020). Impact of WhatsApp Interaction on Improving L2 Speaking Skills. *International Journal of Emerging Technologies in Learning*, 15(3), 250–259. <https://doi.org/10.3991/ijet.v15i03.11534>
- Sosas, R. V. (2021). Technology in Teaching Speaking and its Effects to Students Learning English. *Journal of Language and Linguistic Studies*, 17(2), 958–970. <https://doi.org/10.52462/jlls.66>
- Soyoof, A., Reynolds, B. L., Vazquez-Calvo, B., & McLay, K. (2023). Informal Digital Learning of English (IDLE): A Scoping Review of what has been done and a look towards what is to Come. *Computer Assisted Language Learning*, 36(4), 608–640. <https://doi.org/10.1080/09588221.2021.1936562>
- Stockdale, D. A. (2009). Comparing Perception of Oral Fluency to Objective Measures in the EFL Classroom (Unpublished Thesis). Birmingham: University of Birmingham.
- Stockwell, G. (2016). Mobile language learning. In *The Routledge Handbook of Language Learning and Technology* (pp. 296-307). Taylor and Francis Inc. <https://doi.org/10.4324/9781315657899>
- Sun, W. (2023). The impact of automatic speech recognition technology on second language pronunciation and speaking skills of EFL learners: a mixed methods investigation. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1210187>
- Sundqvist, P. 2009. "Extramural English Matters: Out-of-School English and Its Impact on Swedish Ninth Graders' Oral Proficiency and Vocabulary." Unpublished doctoral dissertation, Karlstad University Studies, Karlstad, Sweden.

- Sundqvist, P. (2019). *Commercial-off-the-shelf games in the digital wild and L2 learner vocabulary*. 23, 87–113. <https://doi.org/10.125/44674>
- Sundqvist, P., & Olin-Scheller, C. (2013). Classroom vs. extramural English: Teachers dealing with demotivation. *Linguistics and Language Compass*, 7(6), 329–338. <https://doi.org/10.1111/lnc3.12031>
- Suputra, D. (2021). Teaching English Through Online Learning (A Literature Review). *The Art of Teaching English as a Foreign Language*, 2(1), 63–67. <https://doi.org/10.36663/tatefl.v2i1.104>
- Suryanto, B. T., Imron, A. A., & Prasetyo, D. A. R. (2021). The Correlation between Students' vocabulary mastery and speaking skill. *English Journal for Teaching and Learning*, 9(01), 111-123.
- Thornbury, S. (2005). *How to Teach Speaking*. London: Longman.
- Timpe-Laughlin, V., Sydorenko, T., & Daurio, P. (2022). Using spoken dialogue technology for L2 speaking practice: what do teachers think? *Computer Assisted Language Learning*, 35(5–6), 1194–1217. <https://doi.org/10.1080/09588221.2020.1774904>
- Uztosun, M. S., & Kök, M. (2023). L2 skill-specific anxiety and communication apprehension: the role of extramural English in the Turkish context. *Innovation in Language Learning and Teaching*, 1-15. <https://doi.org/10.1080/17501229.2023.2217170>
- Vurdien, R. (2019). Videoconferencing: Developing Students' Communicative Competence. *Journal of Foreign Language Education and Technology*, 4(2), 269–298.
- Widyastuti, W. (2017). Authentic Material and Automaticity for Teaching English. *Register Journal*, 10(1), 83. <https://doi.org/10.18326/rgt.v10i1.83-100>