

## **The Constructive Upshots of the Implementation of Information Communication Technology (ICT) on Teaching and Learning English as a Foreign Language: An Analytical Investigation**

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### **Abstract**

Digital literacy, one aspect of the current digitalized cultural forms, has become an integral societal skill and has tremendously impacted on the ways people learn and share information, affecting thus the construction and distribution of knowledge between individuals. Being digital literate allows one to use media platforms and tools expertly and produce information proficiently, the fact that renders it significant for curriculum frameworks and educational objectives. Universities around the world have adopted Information and Communication Technology (ICT) to promote digital literacy among students learning a foreign language, particularly English. Integrating technology aims to bring reforms to and improve education systems by moving away from outdated methods and alternatively using modern techniques for teaching a foreign language. Studies have shown that integrating technology, such as information and communication technology (ICT), in teaching English as a foreign language can have positive outcomes. The use of ICT has been observed to enhance the distribution of information and improve the instruction and learning of a foreign language for both educators and pupils. This study aims to investigate how advancements in Information and Communication Technology (ICT) have impacted the way English is taught and learned as a foreign language at two randomly selected universities. The focus is on how ICT is used to restructure language instruction and learning environments, and how it assisted in teaching and learning English. The study will use an analytical approach to examine the implementation of ICT at selected universities. It is also aimed to provide recommendations on the correct implementation of ICT as well as provide a comprehensive review not only on the advantages of the latter instructive tool but also on its disadvantages in EFL classrooms.

**Keywords:** Information and Communication Technology (ICT), English as a Foreign Language (EFL), Modern teaching/learning methods, English language teaching and learning, E-learning.

## النتائج البناءة لتطبيق تكنولوجيا المعلومات و الاتصالات (ICT) في تدريس اللغة الانكليزية و تعلمها كلغة أجنبية: تحقيق تحليلي

### خلاصة

أصبحت محو الأمية الرقمية ، وهي أحد جوانب الأشكال الثقافية الرقمية الحالية ، مهارة مجتمعية متكاملة وأثرت بشكل كبير على طرق تعلم الناس وتبادل المعلومات ، مما أثر بالتالي على بناء المعرفة وتوزيعها بين الأفراد. الثقافة الرقمية تسمح للمرء باستخدام المنصات والأدوات الإعلامية بخبرة وإنتاج المعلومات بكفاءة ، الحقيقة التي تجعلها مهمة لأطر المناهج الدراسية والأهداف التعليمية. اعتمدت الجامعات في جميع أنحاء العالم تكنولوجيا المعلومات والاتصالات (ICT) لتعزيز محو الأمية الرقمية بين الطلاب الذين يتعلمون لغة أجنبية ، وخاصة اللغة الإنجليزية. يهدف دمج التكنولوجيا إلى إدخال إصلاحات على أنظمة التعليم وتحسينها من خلال الابتعاد عن الأساليب القديمة واستخدام التقنيات الحديثة بدلاً من ذلك لتدريس لغة أجنبية. أظهرت الدراسات أن دمج التكنولوجيا ، مثل تكنولوجيا المعلومات والاتصالات (ICT) ، في تدريس اللغة الإنجليزية كلغة أجنبية ، يمكن أن يكون له نتائج إيجابية. وقد لوحظ استخدام تكنولوجيا المعلومات والاتصالات لتعزيز توزيع المعلومات وتحسين تعليم وتعلم لغة أجنبية لكل من المعلمين والتلاميذ. تهدف هذه الدراسة إلى التحقيق في كيفية تأثير التطورات في تكنولوجيا المعلومات والاتصالات (ICT) على طريقة تدريس اللغة الإنجليزية وتعلمها كلغة أجنبية في جامعتين تم اختيارهما عشوائيًا. ينصب التركيز على كيفية استخدام تكنولوجيا المعلومات والاتصالات لإعادة هيكلة تعليم اللغة وبيئات التعلم ، وكيف ساعدت في تعليم اللغة الإنجليزية وتعلمها. تستخدم الدراسة نهجًا تحليليًا لفحص تطبيق تكنولوجيا المعلومات والاتصالات في جامعات مختارة. ويهدف أيضًا إلى تقديم توصيات حول التنفيذ الصحيح لتكنولوجيا المعلومات والاتصالات بالإضافة إلى تقديم مراجعة شاملة ليس فقط حول مزايا الأداة التعليمية الأخيرة ولكن أيضًا حول عيوبها في فصول تعليم اللغة الإنجليزية كلغة أجنبية.

**الكلمات الدالة:** تكنولوجيا المعلومات والاتصالات (ICT) ، اللغة الإنجليزية كلغة أجنبية (EFL) ، طرق التدريس / التعلم الحديثة ، تدريس اللغة الإنجليزية وتعلمها ، التعلم الإلكتروني.

### Introduction

In the current shift towards technology-based instruction, Information and Communication Technology (ICT) is widely seen as a practical and effective tool for improving the quality of education. One of the unprecedented services that ICT provided is perhaps that it fundamentally permitted students with disabilities to effortlessly be part of the learning process and therefore overcome previous barriers (Watkins et al, 2011). Cakici (2016) asserts that ICT has generated better learning settings and brought about educational reform. Therefore, integrating ICT into language learning classrooms has become integral to maintain a quality language learning environment.

Asabere and Enguah (2012) define ICT as, “The tools, facilities, processes, and equipments that provide ... transmission, processing, storing and disseminating of information in all forms including voice, text, data, graphics and video” (as cited in Cakici, 2016, p. 74). Livingstone (2012, p. 13) further affirms that ICT tools are necessary to educational environments like interactive whiteboards “... or applications used across formal or informal boundaries (e.g. education games) and networked technologies.” In other words, ICT technological tools are valuable, requisite resources that must be integrated into classrooms to help students better learn, process, and produce information. ICT tools include “... laptop[s], interactive whiteboard, LCD projector, internet and social networks

... [that] will help learners to use English in a very ... communicative and stress free language learning environment” (Cakici, 2016, p. 74). A further definition was provided by Manuelli (as cited in Mpofu & Mathys, 2011) affirming that ICT is in a nutshell every form of technological advancements, devices, and networks that assist in communication and connection among individuals.

### **Statement of the Problem**

Despite the use of various tools and techniques to improve the teaching and learning of English as a foreign language in universities around the world, students’ language proficiency levels and results remain unsatisfactory. The latter undoubtedly requires major attention and must be explored empirically in order to suggest better classroom tools that meet the widespread technological developments and the anticipated language proficiency level.

### **The Importance of the Study**

Worldwide universities have chosen to integrate ICT in English as a foreign language (EFL) classrooms to improve teaching and learning. This technology is effective in maximizing language input and productivity among English language learners and is useful as a medium of international communication. Moreover, this study’s importance lies in the fact that it situates itself within contemporary concerns as it revolves around the implementation of computer-assisted teaching and learning and its unavoidable positive impact.

### **The Purpose of the Study**

The purpose of this research is to determine the impact of incorporating ICT in English as Foreign Language classrooms on performance and the prolific alterations it engenders in language learning contexts. In order to achieve the latter purposes, two randomly selected studies were chosen for their accuracy and reliability. This study’s research questions will be investigated and answered based on the following two research studies: Kurniawati’s and Sofiyah’s qualitative study (2021) in Ronggolawe University Tuban (RUT) and Nguyen’s empirical study (2022) in a university in Vietnam.

### **The Hypothesis**

This study hypothesizes that utilizing Information and Communication Technology in language instruction will result in improved proficiency and increased engagement and motivation among students. To test this study’s hypothesis, the following research questions are addressed.

### **The Research Questions**

- 1- To what extent does the implementation of ICT in EFL classrooms improve students’ proficiency and learning outcomes?
- 2- Why is ICT important in educational settings?

- 3- What are some of the challenges that accompany ICT implementation?
- 4- What type of ICTs are being implemented in EFL classrooms at worldwide universities?

### **Scope and Delimitations of the Study**

Having introduced the topic under study, few limitations are expected. This research is circumscribed to an exploration of the positive effect of the implementation ICT on teaching English. As such and due to the limited space set for the literature review section, my study will be limited to the exploration of only two randomly chosen studies that were selected for their reliability and validity.

Moreover, even though this study aims to trace the positive impact of ICT on EFL, there are several disadvantages of the latter method. Some teachers and students may find it challenging using technological tools. Livingstone (2012) asserts that ICT may not be appropriate under all circumstances and may therefore require extensive training for successful implementation. In addition, it is sometimes difficult for teachers to find and design tasks that meet all students' learning styles. Another drawback of ICT is that technological devices like laptops and tablets are costly to some students. Livingstone (2012) adds that ICT implementation into education presents both advantages and difficulties, as the integration requires restructuring of teacher training, curriculum, classroom methods, assessment techniques at all levels. In a similar token, Israfilovna (2021) states that among ICT challenges are difficulties using computer-based technologies and time shortage. Despite ICT challenges, this study will shed light on the wide range of opportunities and reforms that ICT provides to educational settings and curriculums.

### **Literature Review**

This study highlights the significance of integrating ICT to foreign language teaching as an effective supplementary and a valuable complementary teaching tool. For this reason, it aims to support related literature, particularly those emphasizing the necessity of the implementation of ICT in the teaching and learning process and its inevitable contribution to quality education.

### **ICT and Teaching English as a Foreign Language**

The integration of Information and Communication Technology in EFL settings has reflected positively on teaching and learning English, particularly that technology-based education increases students' motivation and engagement. The latter renders ICT a successful pedagogical technique in that it can be regarded as a student-centered approach to teaching where students are actively engaged. ICT enhances the mastery of the four English skills as revealed by Kurniawati and Sofiyah (2021) and Nguyen (2022). They assert that adopting new technological methods in teaching can undoubtedly foster an active classroom where students are actively integrated. It also provides them the opportunity to get access to all necessary information from any location and at any time. More important is that the use of ICT tools in EFL classrooms can improve the teaching quality "... in terms of properly preparing exercises to fulfill both visual and auditory senses, presenting students with a

wealth of realistic ... resources, and enhancing their language production efficiency...” (as cited in Yermekkyzy, 2022, p. 16). The latter is further asserted by Alkamel and Chouthaiwale (2018) who emphasize the indispensable role that ICT plays in teaching and learning English particularly that it works on improving the four English skills.

In an experimental study conducted by Al Munawwarah (2014), it is concluded that the integration of ICT in English language instruction resulted in the creation of engaging learning activities and facilitated the process for teachers as well as it kept students engaged (as cited in Kurniawati & Sofiyah, 2021). Similarly, Jayanthi and Kumar (2016) and Khan and Kuddus (2020) assert that ICT is a constructive teaching method in ELT classrooms due to the wide range of facilities it provides such as the availability of tools and students' autonomy particularly that they are responsible for their own learning. Another study by Ramya and Clement (2020) concluded that ICT helps students to better comprehend and improve proficiency in English language mastery. In other words, ICT allows students to be exposed to a wide range of less-ordinary and authentic means like images, videos, and digital quizzes that help them become responsible of their own learning as well as practice the language effortlessly in a stress-free atmosphere unlike traditional ones. Additionally, the integration of instant messaging, online gaming and social networking promotes effective learning, collaboration among peers, and increases learners' motivation (Livingstone, 2012). Therefore, the collaborative learning that ICT fosters will result in a higher self-confidence and outstanding outcomes and productivity particularly that it promotes critical thinking and collaboration through the computer-assisted packages.

ICT also allows course administrators to vary teaching tools and to cater more for students' varying styles, interests and needs, hence maintaining an interactive classroom environment. Not only does ICT facilitate language learning and created interactive environments, but it also provides students with the opportunity to acquire computer skills and become digital natives, contemporary competences necessary outside the classroom.

Moreover, another advantage is that as opposed to traditional means of using books with a single format, ICT provides learners the opportunity to practice with a large body of presentations, styles, visual aids, and tools that meet all types of learning styles. It also allows learners to be creative and to have access to far-reaching resources and information. In other words, students' talents and skills are fostered through the effortless access to multiple technology-based applications that liberate students from rigid traditional approaches and from the sole emphasis on written language that has hindered the full realization of various human abilities (Kress, 1998, as cited in Livingstone, 2012). Moreover, the assortment of resources allows teachers to vary their materials and reduces the time they spent on corrections due to the quick auto-correct feature. An example of what ICT can provide language learners with is the option of sharing their work by mail and getting direct feedback as well as sharing works on Google Drive with their peers, and therefore working collaboratively and interactively to edit and learn simultaneously.



Numerous other advantages of integrating ICT in EFL classrooms are provided by Cakici (2016, p. 76),

It ... provides flexible and diverse set of technological tools, promotes problem solving skills of students, gives chance learners to use higher order skills, develop critical thinking and effective information processing skills, encourages active independent, autonomous and collaborative language learning, motivates and facilitates language learning, enhances teacher training.

A study by Bhatti et al (2021) further confirms that using ICT in an EFL classrooms has tremendous benefits namely helping learners better understand and apply the acquired knowledge. Most importantly is what Bhatti et al (2021) provide about the power of ICT in making learning easier and simpler through the use of auditory, visual, kinetic animated and simulated elements and features to convey abstract concepts of life. Not only do ICT tools make abstract conceptions more realistic but also activities become more interesting and interactive, hence producing better results and positively impacting the learners. It is important to note that the most well-known and effective applications that assist learning English as a foreign language are “quipper school, acapella Group, and booktrack” (Mulyono, 2012, as cited in Arifin, 2020, p. 32). In a nutshell, ICT benefits in English language teaching and learning are summarized by Igwe et al (2010, p. 4) as follows:

- a- It combines the elements of sound and sight which makes learning more meaningful and interesting to the learner.
- b- It helps to improve listening skills, correct pronunciation and grammar generally. Improvement in listening skills ...
- c- ICT helps students to become independent learners capable of developing critical thinking and problem solving abilities.
- d- The use of e-mail enables students to become more computer literate. This can make them widen their social horizon as they interact collaboratively and cooperatively with others on-line in a good spirit of team work, information seeking and brain storming.
- e- The use of ICT in teaching and learning English reduces the risk of failure. i. Just as the invention of writing brought about the need to memorize important pieces of information and the printed books made it easier to transmit knowledge to a wider audience, so has the ICT brought about extraordinarily new ways of gathering, storing, retrieving and processing information from far and near.
- f- With the electronic media, a teacher can easily demonstrate difficult concepts, theories and principles for the benefit of his learners. This normally enriches the teacher’s teaching as it gives meaning to the lesson and makes his class presentation exciting and memorable.

## Methodology

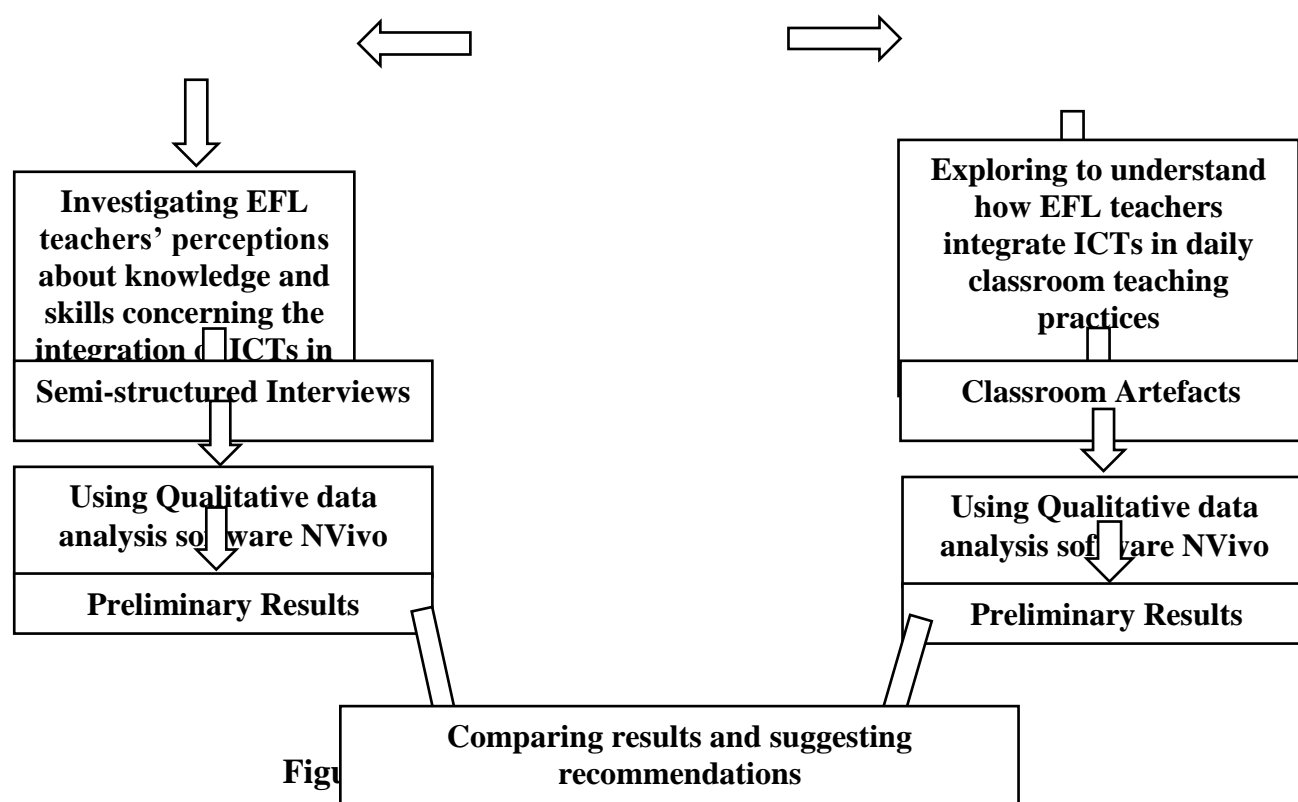
To answer the previously addressed research questions, this meta-analytical study refers to Kurniawati's and Sofiyah's qualitative study (2021) in Ronggolawe University Tuban (RUT) and Nguyen's empirical study (2022) at a university in Vietnam. They were chosen for their reliability, validity, accuracy and most importantly because they fit in the paradigm of ICT and its tremendous, positive effect on teaching and learning English. This study will inspect both studies' quantitative findings and come up with a qualitative analysis that will ultimately disclose the benefits of using ICT in education, particularly in teaching English.

In Kurniawati's and Sofiyah's descriptive qualitative study (2021), the researchers use interview and questionnaire to collect data. Data was then interpreted using the mixed method approach. Combining methods in a mixed-method approach allows the strengths of one method to compensate for the weaknesses of another, resulting in a more reliable and thorough collection of data (McMillan, 2004, as cited in Kurniawati & Sofiyah, 2021). Also, mixed methods provide greater credibility in the findings and provide accurate results (Creswell, 2003; McMillan, 2004, as cited in Kurniawati & Sofiyah, 2021).

The data of the study were in quantitative forms and collected by the survey questionnaire that was sent to all participants virtually with google forms. In addition, the interview adopted posed questions that mainly investigated the instructors' viewpoints towards the implementation of ICT in EFL classrooms. The information gathered from the questionnaire and the interview showed that all lecturers of English as a foreign language use ICT when they teach the four English skills and reveal its advantageous assistance.

Furthermore, in Nguyen's empirical study (2022), two data collection methods were implemented: virtual interviews and items prepared by the EFL teachers to support their teaching. Data from the interviews assisted in answering the study's research questions. The following is an overview of Nguyen's (2022, p. 108) research design:





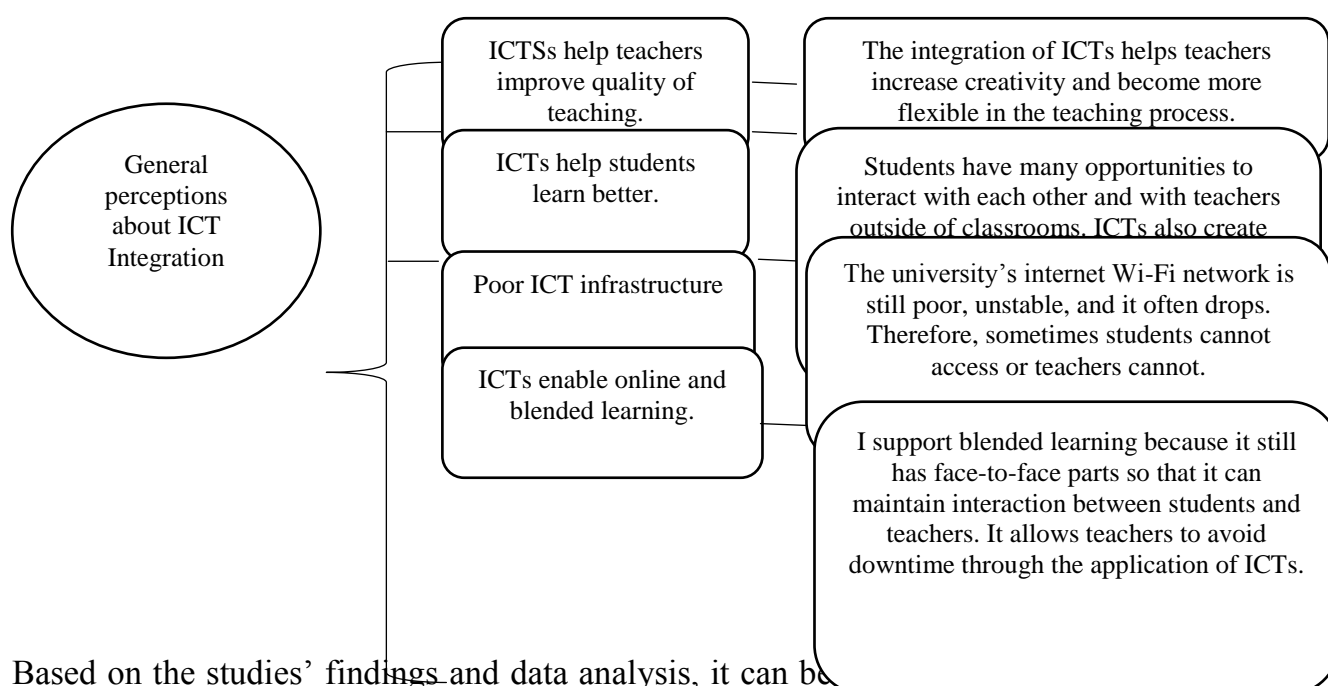
## Discussion

Based on Kurniawati and Sofiyah's qualitative findings (2021), it can be determined that lecturers in EFL classrooms who incorporate ICT are able to effectively teach and assess all four language skills and ensure that students have solid understanding and acquisition. It is asserted that all interview participants, mainly teachers, concurred the advantages and importance of incorporating ICT in English classrooms (Kurniawati & Sofiyah, 2021). It is important to mention that in addition to various web-based platforms and applications, a variety of technologies were utilized, such as interactive multimedia, computers, mobile devices, interactive whiteboards, sound equipment (such as audio and headphones), DVDs, and tape recorders.

Furthermore, Nguyen's (2022) study employed a combination of techniques for gathering data in order to address the two research questions. Interviews were utilized to gather information for research question 1, which focused on teacher's perceptions, and classroom teaching artifacts were collected to answer research question 2, which examined the specific actions taken by EFL teachers to incorporate technology into their regular teaching classes. The data obtained from interviews and teaching artifacts were handled independently, but the analysis procedure was consistent, and all data was cross-checked for consistency. The interview data interpretation was transcribed, while the data collected from the artifacts was interpreted and condensed. Then, both interview transcripts and information obtained from teaching materials used in the classroom were entered into NVivo 12 Plus, a popular software for interpreting qualitative data, which facilitates the organization, management,



coding, and examination of data to reveal initial findings. The findings from both sets of data were analyzed together to gain a deeper understanding of both teachers' views and their actual usage of ICTs. Based on the comparisons, conclusions were reached and recommendations were proposed. The following diagrams summarizes the study's findings (Nguyen, 2022, p. 131):



Based on the studies' findings and data analysis, it can be concluded that ICTs not only improves the resources available for teaching the English language, but also enhances the teaching quality and promotes creativity and comprehension. Findings also reveal that incorporating images and sounds into lessons made them more engaging and interesting, with positive feedback from students. Additionally, the incorporation of ICT leads to a change in the teacher's role from solely being an instructor to a facilitator and moderator, which in turn improves the interaction between teachers and students.

Learners were also provided with more chances to share their views independently through the use of blogs or emails. Providing students with the chance to express themselves autonomously through blogs and emails not only enhances their self-assurance but also allows teachers to gain a better understanding of their students' capabilities, personalities, and method of learning. The studies' findings can be used to adapt teaching methods to better suit the needs of individual students.

Furthermore, exposure to ICT at university EFL classrooms provides students with the computer skills and experience considered essential for 21<sup>st</sup> century competencies. They are necessary for various aspects of education and employment, including diversity of thought and perspectives, creating classroom presentations, and the capacity to access and apply current knowledge.

It can be concluded from both studies, Kurniawati and Sofiyah (2021) and Nguyen (2022), that ICT plays a major role in improving communication among learners particularly through using online forums, therefore increased engagement and interaction. For instance, educational games and simulations help students increase their productivity and understanding. It is also worth mentioning that ICT integration in EFL classrooms proved to enhance collaboration specifically when students are asked to work on projects and group work. ICT also allows foreign language learners to have access to a vast array of information and resources that can enhance their learning experience and help them acquire the language more proficiently.

ICTs are additionally valuable instruction tools for educators who can use improved assessment techniques like online quizzes, Google Docs, and self-grading software that can make assessment easier and less time-consuming as well as help teachers to assess students' progress and understanding in a more reliable way. Interestingly, ICT supports teachers' work by providing a variety of resources and activities, thus catering to diverse learning styles and abilities.

## **Conclusion**

The incorporation of ICTs in education has countless advantages and as Jayanthi and Kumar (2016, p. 5) put it, "ICT, like language lab, videos, satellite broadcast, videoconferencing and web seminars have support the richness and quality of education both on and off campus". The latter confirms the necessity to incorporate ICT tools in education spheres as they facilitate the teaching and learning process. For instance, technologies like PowerPoint projectors and videos can be used to teach various aspects of the English language, including literature, and all four skills (Jyanthi & Kumar, 2016). Interestingly, ICT tools do not only facilitate delivery and mastery of English skills and learning objectives, but also help generate ingenious learners. Moreover, as ICT is becoming increasingly important in the workplace, it is necessary to bestow students the skills and knowledge they need to succeed in a digital world. For the beforehand mentioned reasons, educational institutions should consider implementing ICT services not only to learn a language, but also to maintain effective learning.

It is therefore necessary to implement ICT in EFL classrooms in worldwide universities and that this approach becomes a prevalent trend in the era of technology; however, will digital technologies of the 21<sup>st</sup> century replace the books of the 19<sup>th</sup> century? In addition, this study suggested that ICT can be a valuable tool in English language instruction, but also pointed out that there are challenges in terms of implementation and teachers' training that must be further addressed and investigated.

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