

Advantages and Barriers in Online ESL Learning Environment: A Review of Literature

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Abstract –This article presents a detailed assessment of the literature on the benefits and drawbacks of online English as a Second Language (ESL) learning settings. The study identifies and evaluates the major benefits of online ESL learning, such as flexibility, accessibility, engagement, customization, and global connectedness, based on a thorough review of research papers, reports, and academic articles. The paper also investigates the challenges that learners and instructors may face in online ESL environments, such as the digital gap, a lack of social engagement, digital literacy discrepancies, self-regulation issues, and concerns about quality and integrity. By combining current material, the paper provides insights into the intricacies and problems of online ESL learning, emphasizing the need of overcoming hurdles in order to utilize the potential of online learning settings. The findings highlight the need of collaborative efforts among educators, policymakers, and stakeholders to create ways for supporting inclusive, successful, and equitable online ESL learning experiences. Furthermore, the study underlines the need of continuing research and assessment in determining the influence of online ESL learning on student outcomes and informing evidence-based practices. Finally, this study contributes to our understanding of online ESL learning settings and has implications for practice, policy, and future research in ESL education.

Keywords: Online Learning, Technology, Education, English Language, Advantages, Barriers

I. Introduction

The introduction of technology has significantly transformed the approach of teaching English. Technology provides several advantages by making education engaging and more efficient through innovations. Utilizing technology enables learners to actively engage and acquire knowledge aligned with their individual interests. It has gained widespread acceptance as a method of teaching English in the contemporary world. According to Solanki and Shyamlee (2012), technology fulfills the visual and aural senses of learners. According to Graddol (1997), technology plays a central role in the globalization process and has a significant influence on education and culture.

Friggard (2002), Miner (2004), and Timucin (2006) have verified that technology enhances the advancement of teaching methodologies and the acquisition of knowledge by learners. Lam & Lawrence (2002) also argued that technology facilitates learners in self-regulating their learning process and accessing a wealth of knowledge beyond what their lecturers can offer. Pourhosein Gilakjani and Lai-Mei (2012) explained that advancements in technology have led to the development of innovative tools, methods, and strategies for teaching and acquiring language skills. The proliferation of technologies has had a pervasive influence on several facets of our social and professional lives, as well as our recreational pursuits.

Several scholars have asserted that technology may serve as an educational tool for teaching and acquiring skills. Pourhosein Gilakjani (2013) and Bruce and Levin (2001) argue that technology may be beneficial in the classroom by facilitating communication, creating educational materials, and supporting learners' self-expression. Pourhosein Gilakjani (2013) emphasizes the significant impact of technology on instruction, education, and training. The researchers stated that the utilization of technology in education creates a new domain of understanding and offers a tool with significant potential to alter current teaching methodologies.



Researchers from several sectors have analyzed the impact of technology on education. All of these researches concur that technology enhances instructors' pedagogical approaches and facilitates learners' acquisition of information (Frigaard, 2002; Pourhosein Gilakjani & Sabouri, 2014; Schofield & Davidson, 2003; Timucin, 2006). By utilizing technology, learners not only have the ability to manage their own learning process, but also have access to additional material that their professors are unable to regulate (Pourhosein Gilakjani & Sabouri, 2014).

Technology is crucial in facilitating suitable activities for learners and greatly influences instructors' instructional approaches in their classrooms. The progress of technology has been closely linked to the evolution of the English language and is altering our methods of communication. Failure to incorporate technological advancements in our classrooms will hinder our ability to stay abreast of current advances. Hence, it is imperative for educators to stay abreast of the most recent tools and possess comprehensive expertise in utilizing these technologies across many contexts. There are several justifications for why both learners and teachers should possess the knowledge of utilizing modern technology. It is important to acknowledge that new technologies are continuously advancing and spreading, and we cannot overlook their influence on the process of teaching and learning (Solanki & Shyamlee1, 2012).

Technology offers a multitude of materials in real time to aid students. Students have the option to utilize simplified dictionaries, create flashcards, and conduct online research in the language they are studying. Colleagues, talking partners, and tutors can be located on the internet. They will encounter abundant instances of the languages they are studying, not only fixed examples from conventional textbooks. Technology can enhance the quality of language learning in conventional settings. For example, the learners can create recordings of themselves speaking the foreign language they are learning and then share their feedback and critiques with the class. Students can utilize technology in the classroom to engage in text-based communication with their peers, rather than speaking, since this allows them to concentrate and assess their own performance.

Teachers can assess their students' performance by providing valuable insights into the specific areas of practice that learners need to focus on. Teachers should modify their teaching methodologies and educational strategies to accommodate the specific requirements of learners, so enhancing the overall efficiency and effectiveness of the learning process. For example, a teacher who recognizes that all of his or her students have difficulty reading texts that include instances of the future tense should prioritize reviewing those passages in the classroom, rather than spending time on examples that are not relevant to the group's requirements. Technology may be a valuable component of a comprehensive language learning strategy when it is employed to creatively tackle difficulties and enhance language learning methods.

II. Technology Integration

2.1. Definition of Technology Integration

Technological integration is the integration of technological tools, resources, and procedures into different areas of education, business, or other fields in order to improve learning, productivity, efficiency, or effectiveness. It entails the smooth integration of technology into current workflows, procedures, or instructional methodologies to enhance and magnify intended results. Technology integration involves the incorporation of many techniques such as utilizing computers, software applications, digital devices, online resources, and internet connectivity to enable communication, collaboration, creativity, problem-solving, and access to information. The objective of technology integration is to utilize technical capabilities to enhance results and experiences within a specific environment.

There are numerous perspectives about the definition of technology integration. According to Cuban, Kirkpatrick, and Peck (2001) and Hew and Brush (2007), technology integration refers to the different ways



teachers use computers in their classes. This can be categorized as low-level use, such as students conducting Internet searches, or high-level use, such as students creating multimedia presentations and using data for projects. According to Hennessy, Ruthven, and Brindley (2005), technology integration refers to the way instructors use technology to do familiar duties more efficiently and how this use might change the nature of these

jobs.

Lim et al. (2003) and Hew and Brush (2007) describe technology integration as the act of instructors use technology to enhance the development of learners' cognitive abilities. technological integration refers to the incorporation of technological tools across several academic subjects in education, enabling students to apply computer and technology skills to enhance their learning and problem-solving abilities. Technology integration refers to the utilization of technology to enhance the educational setting. Integrating technology in the classroom can enhance classroom learning by providing learners with the opportunity to complete work on a computer instead of using traditional pencil and paper methods (Dockstader, 2008).

2.2. Integration of Technology into the Classroom

Dockstader (2008) identifies many significant justifications for using technology into classroom settings. The following items are:

- 1) By incorporating technology, it would be feasible to enhance the depth of the knowledge covered in the curriculum.
- 2) In the era of information, it is important to acquire knowledge in technology.
- 3) Technology serves as a motivator for learners, thereby increasing the amount of time they participate in academic activities.
- 4) By delving further into the subject, learners may progress from acquiring knowledge and understanding to applying and analyzing information.
- 5) Learners acquire the knowledge of locating information in a world abundant with information.
- 6) Teaching computer skills in solitude is not advisable.
- 7) Learners acquire computer literacy by utilizing various computer skills as an integral component of the learning process.

Billings and Mathison (2011) identified two factors that contribute to the improvement of learners' academic performance through the use of educational technology. One primary reason is because they effectively engage learners in the content. The second reason is that they generate enthusiasm among learners to engage in instructional tasks. One of the fundamental benefits of incorporating technology into classrooms is that, when used appropriately, it may enhance the enjoyment of learning for students. Providing learners with a plethora of interesting resources will enhance their engagement in the class and facilitate their comprehension of the learning elements. Moreover, if the classes are enjoyable for the learners, they will be more enthusiastic about participating. To effectively incorporate technology, teachers must possess knowledge of proper use and be capable of instructing students in right usage. Oliver, Osa, and Walker (2012) argue that integrating technology into education enables learners to develop proficiency in several aspects of information technology, such as using technology tools effectively, seeking and evaluating information, solving problems, making informed decisions, being creative with technology, communicating effectively, and collaborating with others.

2.3. The Importance of Technology

The incorporation of technology into teaching has become more essential in contemporary education, providing several advantages to both students and instructors. Through the utilization of technological tools and resources, educators may develop dynamic and interactive educational experiences that accommodate a wide range of learning styles and abilities. Student interest is captivated and the learning process is enhanced via the use of educational games, multimedia presentations, and internet resources, resulting in increased engagement



and motivation. Furthermore, technology enables the facilitation of cooperation and communication, effectively dismantling geographical obstacles and promoting worldwide relationships between students and instructors. Furthermore, it enables educators to tailor their teaching methods, customize the learning experience, and offer personalized assistance to each student. In the 21st century, digital literacy has become crucial for success. By incorporating technology into instruction, students are better equipped to meet the requirements of the modern workforce. Moreover, technology facilitates the creation of inclusive learning environments by accommodating a wide range of demands and increasing accessibility for all learners. By using technology, instructors may simplify administrative duties, increase efficiency, and get access to numerous professional development opportunities. Technology integration in education fundamentally revolutionizes learning experiences and fosters crucial abilities for lifelong learning and triumph in an ever more digital society.

Technology refers to the systematic use of methods, processes, and knowledge to accomplish a certain job. According to this definition, technology is defined as a learning goal or instructional purpose that involves the use of technological procedures, techniques, or information within the framework of this study. For example, the student can fulfill a speech assignment by delineating the attributes of an object in the desired language and employing a digital voice recorder to capture their speech for subsequent playback to their teacher (Merriam-Webster Dictionary, 2019). Utilizing classroom technology motivates English students to enhance their proficiency in the English language. Technology provides several learning options in addition to traditional techniques. Teachers have a plethora of tools and materials at their disposal for their classes. Cutter further elucidates the rise in involvement with technology. Students exhibit more motivation when engaged in computer-based activities and utilizing contemporary technologies compared to traditional textbook-based learning (Cutter, 2015).

Students are frequently less prone to distractions, and the teacher may tailor individual courses to meet each student's specific needs. Furthermore, students have the option to utilize their household equipment to enhance their understanding. Technology has consistently played a significant role in the educational setting. It is a crucial aspect of the teaching profession that may be utilized to facilitate the learning process for students. The term "integration" is often when discussing the incorporation of technology into the process of teaching and learning. Given the pervasive presence of technology in our everyday lives, it is imperative to reassess the notion of incorporating technology into your educational program and to include technology into instruction as a means of enhancing the learning process. Technology enhances teachers' capabilities and provides them with a multitude of opportunities to teach English to students. For example, incorporating English-language videos or songs related to the subject being taught can accelerate students' comprehension and improve their overall perspective on the topic.

Utilizing new-generation technology provides students with a genuine environment for independent learning, fosters their sense of identity as learners, introduces novel methods of language usage, and motivates them to establish collaborative and interactive relationships between teachers and students (Murray, 2005). Technology is crucial in facilitating learners' activities and significantly influences instructional approaches. Teachers who do not use technology into their teaching methods will struggle to stay abreast of technological advancements. Consequently, it is vital for teachers to possess comprehensive proficiency in instructing language skills using these technologies (Pourhosein Gilakjani, 2017; Solanki & Shyamlee, 2012). Nomass offers potential technical techniques that might significantly contribute to education, particularly in the areas of speaking and listening. He asserted that English language learners have the ability to acquire knowledge through many means, such as utilizing web-based language learning programs, creative presentation software, dictionaries, chat features and emails, as well as computer-assisted language learning programs. The study was conducted using the case study approach and specifically examined the utilization of technology in a school setting for English language learning among a cohort of students. Nomass addresses the present technological challenges in educational settings and provides suggestions for future study and their potential implications. One of the issues is the separation between theory and practice in today's classrooms. Nomass (2013) advocated for

the use of technology into language instruction at these institutions and emphasized the importance of instructors considering these kind of advancements.

2.4. Integrating Technology in the Classroom

Incorporating technology in the classroom improves learning by offering students interactive and captivating chances to investigate topics, cooperate with classmates, and utilize a wide range of digital resources. By integrating technological resources like interactive whiteboards, educational applications, and online platforms, instructors have the ability to customize lessons, provide diverse learning experiences, and cultivate critical thinking abilities. Moreover, the incorporation of technology fosters digital literacy and equips students for triumph in an ever more digitalized society. By strategically incorporating and continuously improving the use of technology, educators may provide interactive and student-focused learning spaces that enable students to excel in the modern day.

Internet usage enhances students motivation. Utilizing film in teaching facilitates students' comprehension and fosters their information acquisition with excitement. Students can utilize technology, such as computers and the internet, to enhance their learning processes and achieve optimal results. Utilizing technology in education facilitates the cultivation of students advanced cognitive abilities. Ultimately, it is crucial to emphasize the significance of English language acquisition, which involves effectively integrating multimedia and instructional approach (Arifah, 2014). The text provided two contrasting viewpoints on the integration of technology in a classroom. Using the cognitive method, students may fully utilize their language exposure and construct their own personal knowledge in a relevant environment. Examples of such technologies include text restoration software and multimedia simulation software. Through the use of multimedia simulation software, learners are able to engage with digital micro-worlds that provide a meaningful audio-visual environment, emphasizing language and culture. The most superior of these systems enables students to have significant control and interaction, enabling them to modify their language input more effectively. Furthermore, the social approach emphasizes the social aspect of language acquisition, viewing the acquisition of language as a process of socialization. Within this framework, it is imperative for students to possess the capability to apply practical skills through authentic social exchanges. This may be achieved by engaging students in genuine activities and projects in cooperation with them (Warschauer, 2000).

Pronunciation is a crucial component of language acquisition. Nevertheless, offering constructive critique is challenging. In conventional teaching environments, an instructor, who may or may not be proficient in first evaluating the student's assertion, often offers feedback and demonstrates examples. Typical feedback for students involves either repeating the pronunciation or providing an abstract explanation of how the sound should be made. The learner can enhance the efficiency of receiving feedback by utilizing advancements in voice recognition technology (Zhoa, 2013). Integrating technology into English as a foreign language courses can offer a valuable and appealing method for studying linguistics. According to Ilter (2009), it serves as a source of motivation for students and enhances their abilities in speaking, reading, listening, and writing. However, technology alone is insufficient for teaching English Language Learners (ELLs). A teacher with clear objectives, a deep understanding of the curriculum, and effective educational practices is required. This teacher should be able to give students with learning opportunities that build upon their existing knowledge and promote growth (Schwartz & Pollishuke, 2013). An empirical investigation has shown that the utilization of Wiki technology enhances the writing proficiency of students. The students were sent an invitation to participate on a Wiki website where they could compose passages, then read them, and provide responses to their peers' passages. Students felt that utilizing this type of technology would be advantageous due to the prompt response they got. Lin and Yang (2011) found that students acquired vocabulary, spelling, and sentence construction skills from reading their peers' written assignments.

2.5. Technology Makes Learning English Language Easier



Technology facilitates the process of learning the English language by providing learners the ability to utilize a diverse array of materials, interactive instruments, and tailored learning encounters. Language learners have the opportunity to enhance their listening, speaking, reading, and writing abilities at their own convenience and speed via language learning applications, online courses, interactive websites, and digital language platforms. In addition, instructional software frequently integrates gamification features, enhancing the engagement and enjoyment of learning English. Furthermore, technology facilitates the ability of learners to engage with native speakers, get genuine language resources, and take part in virtual language exchanges, thereby augmenting their language skill and cultural comprehension. In general, technology is crucial in making English language learning resources accessible to a wider audience and giving learners the ability to attain their language goals in a more effective and efficient manner.

The utilization of technology has significantly transformed the instructional approaches employed in teaching English (Altun, 2015). Patel (2013) states that it provides several opportunities to enhance education in a captivating and fruitful manner. Utilizing multimedia text in the classroom facilitates language acquisition by enhancing learners' understanding of language structure and vocabulary. Utilizing multimedia resources, such as printed texts, cinema, and the Internet, also improves learners' language proficiency. Utilizing print, video, and the Internet enables students to acquire knowledge and access a wide range of resources for language analysis and interpretation, as well as different situations (Arifah, 2014). The utilization of the internet amplifies the drive of learners. Utilizing film as a teaching tool enables students to comprehend and enhance their knowledge with excitement. Meaningful learning may be facilitated by incorporating technology, specifically computers and the internet, into the learning process. Learning technology aids in the development of students' higher-order thinking skills. Ultimately, it is crucial for students to prioritize the acquisition of English language skills by effectively integrating multimedia and instructional approaches (Arifah, 2014).

III. Advantages in Online ESL Learning Environment

Online learning has gained significant popularity in educational environments, providing a multitude of benefits for both students and teachers. An important advantage of online learning is its flexibility and convenience, enabling learners to access educational resources and engage in activities at their preferred speed and timetable (Allen & Seaman, 2017). The adaptability of online learning is especially advantageous for non-traditional students, such as working professionals or persons with familial obligations, who may encounter difficulties in attending conventional in-person sessions (Hilton & Laman, 2020). Moreover, online learning offers the chance for students with impairments or residing in remote regions to obtain education by means of adaptive technology and online resources (Hilton & Laman, 2020).

In addition, online learning systems frequently integrate interactive multimedia material, gamification features, and collaboration tools that augment student engagement and motivation (Means et al., 2013). The interactive elements facilitate a dynamic learning environment that promotes active engagement and cultivates more profound learning experiences. Moreover, online learning facilitates customized education using adaptive learning technologies that customize material and evaluations based on the specific requirements and preferences of each student (Cheon et al., 2012). This individualized approach to education caters to a wide range of learning preferences and capabilities, guaranteeing that every student is provided with the necessary assistance and materials to achieve success.

Online learning not only improves student learning experiences but also provides advantages for teachers. Instructors are given access to a wide range of digital resources, such as multimedia content, e-books, and online databases, which may enhance their teaching materials and activities (Huang et al., 2012). Online learning systems gather data on student performance and engagement, enabling instructors to study learning analytics and make educated decisions to enhance instructional tactics (Siemens & Gasevic, 2012). Through the

utilization of technology-driven data, educators may customize their instructional methodology, offer focused assistance to students facing difficulties, and foster student achievement.

In general, online learning has completely transformed the educational environment by providing students and instructors with flexibility, accessibility, engagement, and individualized learning opportunities.

IV. Barriers in Online ESL Learning Environment

Although online learning provides several benefits, it also poses certain obstacles that educators and students may face. The digital gap is a notable obstacle that pertains to inequalities in technology availability and internet connectivity among various demographics (Warschauer & Matuchniak, 2010). Students hailing from low-income homes or rural regions may have challenges in accessing dependable internet connections or essential gear, which might impede their capacity to fully engage in online learning activities (Hilton & Laman, 2020). Moreover, there is a disparity in digital literacy abilities among students, with certain learners facing difficulties in navigating online platforms, utilizing digital technologies efficiently, and distinguishing reliable information from online sources (Bawane & Spector, 2009).

An further obstacle to online learning is the absence of social contact and the establishment of a sense of community that takes place in conventional in-person classes (Rovai, 2007). Online learning can cause students to feel alienated or detached from their peers and teachers, resulting in reduced engagement and motivation (Kear, Chetwynd, Williams, & Donelan, 2012). Furthermore, online learning necessitates self-discipline and the ability to manage time effectively. Students who have difficulty with self-regulation may encounter difficulties in maintaining organization and motivation in an online environment (Garrison & Cleveland-Innes, 2005).

Moreover, there are apprehensions regarding the caliber and thoroughness of online courses, along with the qualifications of online teachers (Hilton & Laman, 2020). It is crucial to protect the integrity of online education by ensuring that online courses adhere to the same academic standards as traditional courses and that professors receive sufficient training in online pedagogy (Means et al., 2013). Furthermore, it is crucial to carefully analyze and take proactive steps to tackle difficulties concerning online assessment and academic integrity, such as cheating and plagiarism (Wang, 2008).

Although there are obstacles, careful preparation, suitable assistance, and continuous professional growth may help reduce many of these issues. As a result, online learning can progress as an efficient and inclusive educational method.

V. Conclusion

The examination of benefits and obstacles in online ESL learning contexts highlights the intricate and ever-changing nature of contemporary educational settings. By conducting an extensive analysis of existing research, we have found many benefits linked to online ESL learning. These advantages encompass flexibility, accessibility, engagement, customisation, and global connectedness. The potential benefits of these advantages are immense, as they may completely transform the field of language teaching. They provide learners a wide range of chances to interact with language materials, engage with peers and instructors, and access a vast array of digital resources.

Nevertheless, the attainment of these benefits is not without of its difficulties. Obstacles such as the digital gap, limited social connection, differences in digital literacy, difficulty in self-regulation, and concerns about quality and integrity present substantial challenges to the successful adoption of online ESL learning.

These obstacles emphasize the need of tackling fairness concerns, offering sufficient assistance and resources for students, and guaranteeing the excellence and strictness of online courses and teaching.

In order to effectively tackle these issues and fully utilize the capabilities of online learning environments, it is crucial for educators, policymakers, and stakeholders in the field of ESL education to work together and come up with innovative solutions. Strategies such as ensuring equal access to technology and internet connectivity, providing specialized assistance for students with diverse learning needs, employing effective teaching methods for online instruction, and cultivating a sense of community and belonging in virtual learning environments are essential for overcoming obstacles and facilitating inclusive and effective online ESL learning experiences.

Additionally, continuous study and assessment are required to evaluate the influence of online ESL learning environments on student achievements, involvement, and contentment. Through ongoing monitoring and analysis of online ESL programs and interventions, instructors may improve their practices, identify areas for enhancement, and use evidence-based ways to optimize student learning and achievement.

To summarize, online ESL learning environments have the potential to greatly improve language instruction. However, they also come with substantial obstacles that need to be addressed via careful planning, cooperation, and innovation. By utilizing the benefits of online learning and actively addressing obstacles, instructors may design inclusive, captivating, and efficient learning experiences that allow ESL learners to accomplish their language objectives and succeed in a globalized society. By combining determined efforts and a dedication to achieving the highest standards, online ESL learning have the potential to completely transform language education and expand the availability of language learning options to individuals all across the globe.

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References

- [1] Allen, E., & Seaman, J. (2017). Digital Learning Compass: Distance Education Enrollment Report 2017. Babson Survey Research Group.
- [2] Altun, M. (2015). The integration of technology into foreign language teaching. *International Journal on New Trends in Education and Their Implications*, 6(1), 22-27.
- [3] Arifah, A. (2014). Study on the use of technology in ELT classroom: Teachers' perspective. M.A. Thesis, Department of English and Humanities, BRAC University, Dhaka, Bangladesh.
- [4] Bawane, J., & Spector, J. M. (2009). Prioritization of online instructor roles: Implications for competency- based teacher education programs. *Distance Education*, 30(3), 383-397.
- [5] Billings, E., & Mathison, C. (2011). I get to use an iPod in school? Using technology-based advance organizers to support the academic success of English Learners. *Journal of Science Education Technology*, 21(4), 494-503. <https://doi.org/10.1007/s10956-011-9341-0>
- [6] Bruce, B., & Levin, J. (2001). Roles for new technologies in language arts: Inquiry, communication, construction, and expression. In J. Jenson, J. Flood, D. Lapp, & J. Squire (Eds.), *The handbook for research on teaching the language arts*. NY: Macmillan.
- [7] Cheon, J., Crooks, S. M., & Song, J. (2012). An investigation of mobile learning readiness in higher education based on the theory of planned behavior. *Computers & Education*, 59(3), 1054-1064.
- [8] Cuban, L., Kirkpatrick, H., & Peck, C. (2001). High access and low use of technologies in high school classrooms: Explaining an apparent paradox. *American Educational Research Journal*, 38(4), 813-834. <https://doi.org/10.3102/00028312038004813>



- [9] Cutter, M. (2015). Using technology with English language learners in the classroom. *Education Masters*. Paper 313.
- [10] Dockstader, J. (2008). Teachers of the 21st century know the what, why, and how of technology integration. Retrieved from <http://the-tech.mit.edu/Chemicool/>
- [11] Garrison, D. R., & Cleveland-Innes, M. (2005). Facilitating cognitive presence in online learning: Interaction is not enough. *American Journal of Distance Education*, 19(3), 133-148.
- [12] Graddol, D. (1997). *The future of English? A guide to forecasting the popularity of the English language in the 21st century (Vol. 29)*. The British Council. Retrieved from <https://doanbangoc.files.wordpress.com/2012/07/the-future-of-english.pdf>
- [13] Hennessy, S., Ruthven, K., & Brindley, S. (2005). Teacher perspectives on integrating ICT into subject teaching: Commitment, constraints, caution, and change. *Journal of Curriculum Studies*, 37(2), 155-192. <http://dx.doi.org/10.1080/0022027032000276961>
- [14] Hew, K. H., & Brush, T. (2007). Integrating technology into K-12 teaching and learning: current knowledge gaps and recommendations for future research. *Education Tech Research Dev*, 55, 223-252. <https://doi.org/10.1007/s11423-006-9022-5>
- [15] Hilton, J., & Laman, C. (2020). The Cost and Quality of Open Textbooks: Perceptions of Community College Faculty and Students. *International Review of Research in Open and Distributed Learning*, 21(1).
- [16] Huang, R., Liu, D. J., Tlili, A., Yang, J. F., & Wang, H. (2012). Enhancing teaching and learning through educational data mining and learning analytics: *An issue brief*. *Asian Association of Open Universities Journal*, 7(1), 1-10.
- [17] Ilter, B.G. (2009). Effect of technology on motivation in EFL classrooms. *TOJDE*. 10(4), 1.
- [18] Kear, K., Chetwynd, F., Williams, J., & Donelan, H. (2012). Social presence in online learning communities: The role of personal profiles. *Research in Learning Technology*, 20(2).
- [19] Lam, Y., & Lawrence, G. (2002). Teacher-student role redefinition during a computer-based second language project: Are computers catalysts for empowering change? *Computer Assisted Language Learning*, 15(3), 295-315. <https://doi.org/10.1076/call.15.3.295.8185>
- [20] Lim, C. P., Teo, Y. H., Wong, P., Khine, M. S., Chai, C. S., & Divaharan, S. (2003). Creating a conducive learning environment for the effective integration of ICT: Classroom management issues. *Journal of Interactive Learning Research*, 14(4), 405-423.
- [21] Lin, W., & Yang, S. (2011). Exploring students' perceptions of integrating Wiki technology and peer feedback into English writing courses. *English Teaching: Practice and Critique*, 10(2), 88-103.
- [22] Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2013). Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies. US Department of Education.
- [23] Merriam-Webster Dictionary; Merriam-Webster, Inc.: New York, NY, USA, 2016.
- [24] Miner, T. (2004). Using technology to enhance learning: Instructor-or student-moderated discussion boards: Which are more effective? Retrieved from http://www.ccone.org/scholars/0405/TomMiner_final_report.pdf
- [25] Murray, D. 2005 Technologies for second language literacy. *Annual Review of Applied Linguistics*, 25,188-201
- [26] Nomass, B. (2013). The impact of using technology in teaching English as a second language. *English Language and Literature Studies*, 3(1), 111-116.
- [27] Oliver, A., Osa, J. O., & Walker, T. M. (2012). Using instructional technologies to enhance teaching and learning for the 21st century preK-12 students. *International Journal of Instructional Media*, 39(4), 283-295.
- [28] Patel, C. (2013). Use of multimedia technology in teaching and learning communication skill: An analysis. *International Journal of Advancements in Research & Technology*, 2(7), 116-123.
- [29] PourhoseinGilakjani, A. (2013). Factors contributing to teachers' use of computer technology in the classroom. *Universal Journal of Educational Research*, 1(3), 262-267.
- [30] PourhoseinGilakjani, A., & Lai-Mei, L. (2012). Teachers' attitudes toward using computer technology in English language teaching. *Theory and Practice in Language Studies*, 2(3), 630-636. <https://doi.org/10.4304/tpls.2.3.630-636>
- [31] PourhoseinGilakjani, A., & Sabouri, N. B. (2014). Role of Iranian EFL teachers about using Pronunciation Power Software in the instruction of English pronunciation. *English Language Teaching*, 7(1), 139-148.
- [32] Rovai, A. P. (2007). Facilitating online discussions effectively. *The Internet and Higher Education*, 10(1), 77-88.
- [33] Schwartz, S., & Polishhuke, M. (2013). *Creating the dynamic classroom: A handbook for teachers*(2nd ed.), Toronto, ON: Pearson.
- [34] Siemens, G., & Gasevic, D. (2012). Guest editorial-learning and knowledge analytics. *Educational Technology & Society*, 15(3), 1-2.

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- [35] Solanki, D., & Shyamlee1, M. P. (2012). *Use of technology in English language teaching and learning: An analysis*. 2012International Conference on Language, Medias and Culture IPEDR vol.33(2012)©(2012)IACSIT Press, Singapore. 150-156.
- [36] Timucin, M. (2006). Implementing CALL in the EFL context. *ELT Journal*, 60(3), 262-271. <https://doi.org/10.1093/elt/cel006>
- [37] Wang, Y. D. (2008). A case study of factors leading to online course success and online course completion rates. *International Journal on E-Learning*, 7(3), 523-540.
- [38] Warschauer, M. &Meskill, C. (2000). Technology and second language learning. In J. Rosenthal (Ed.), *Handbook of undergraduate second language education*(pp. 303-318). Mahwah, New Jersey: Lawrence Erlbaum.
- [39] Warschauer, M., &Matuchniak, T. (2010). New technology and digital worlds: Analyzing evidence of equity in access, use, and outcomes. *Review of Research in Education*, 34(1), 179-225.
- [40] Zhao, Y. (2013). Recent developments in technology and language learning: Literature review and meta- analysis. *CALICO Journal*, 21(1), 7-27.