

Exploring the Effects of E-learning to Maximize EFL Students' Learning Efficiency

Xuejiao Bai*

Department of Humanities & Social Sciences, The Chinese University of HongKong in Shenzhen, China

*Corresponding author: 121030120@link.cuhk.edu.cn

Abstract. The study identifies and analyzes some of the benefits and pitfalls of e-learning, as well as future-proof solutions. Internet technologies have been included in the English as Foreign Language (EFL) teaching process, providing more convenience for teachers to teach English. In the present E-learning environment of any institution of higher education, new pedagogical concepts and approaches have increased the process' efficacy. The research investigates the effectiveness of e-learning, its limitations and opportunities within the EFL classroom setting, especially in the context of the Covid-19 epidemic

Keywords: Online teaching; E-learning; EFL; Learning Efficiency; Covid-19.

1. Introduction

The burgeoning development of computer technology and the Internet has drastically altered the global landscape. It had a significant influence on human life, uniting individuals from diverse regions of the world. Online education and learning is one of the most significant benefits of current technology advancements. Knowledge is no longer restricted to a certain location in the world. The Internet has made it possible for consumers to access the maximum number of ongoing and previously published national and international research, regardless of subject and place. It provides learning opportunities, allowing education to be more accessible and a great deal less arduous with less expense [1].

The European Commission defines e-learning as access to information, which services and remote communication and cooperation leveraging multimedia technology and the Internet to polish the quality of pedagogical techniques. It has been the most common method of instruction in recent years. The growth of the Internet has accelerated the development of E-learning [2]. In addition, as mentioned by Amin et al., E-learning has acquired worldwide appeal in the aftermath of Covid-19 [3]. The reason is that it may inhibit the virus's spread and lessen the impact of the epidemic on the normal education and teaching schedule effectively.

Due to the aforementioned causes, E-learning is increasingly utilized in second language lessons. According to Rosenberg, the utilization of E-learning to foster students' second language acquisition can increase students' motivation and learning effectiveness [4]. It is a form of web-based or internet-delivered computerized distant learning. It excludes traditional classrooms and instead utilizes DVDs, video recorders, cassettes, televisions, etc. Numerous applications and software have been created to make e-learning an interactive experience for both students and teachers. Considering the present rapid technological breakthroughs and globalization patterns in higher education institutions and colleges, new educational methodologies and perspectives, such as e-learning, have emerged. E-learning plays a crucial part in the transition of English as a foreign language (EFL) among Chinese students as the globe grows more advanced and globalization becomes a way of life. Presently, institutions employ E-learning to assist Chinese EFL students in studying more efficiently. Additionally, it assists tutors in doing their administrative duties more effectively [5]. The integration of e-learning into the EFL environment includes meeting students' requirements and language levels, enhancing teachers' creativity, providing faster access to service delivery and dissemination of pedagogical materials, leveraging interactive work between learners and educators, fostering a

positive attitude among students toward their education, and assisting teachers in the learning-teaching procedure.

Despite the importance of E-learning in EFL, there are obstacles that should be overcome. Specifically, when utilizing the platform, it is notably for e-learning at colleges and universities. Included among the obstacles are academic, technical, and administrative [6]. Discrepancies in the syntactic and semantic features of Chinese and English passives, as well as differences in how the two languages handle agency verb transitivity, and therefore present a number of scholarly issues.

According to prior research, the majority of Internet or e-learning consumers deem it useless owing to inadequate training and tutor support. Equally problematic is the necessity for instructors to be technologically proficient. In this situation, educators must be proficient in E-learning and adept at utilizing technologically-based resources and facilities in their teaching activities. The development and implementation of E-learning in EFL have not been a simple process. The time management aspect of E-learning development is difficult because it requires procedures to be structured properly and discreetly; hence, it involves more work and time.

Other obstacles include technical support issues in integrating E-learning into EFL classrooms, in implementing E-learning into the teaching-learning process, and instructors' lack of confidence in utilizing E-learning platforms in the classroom. The majority of colleges use e-learning in conjunction with traditional classroom instruction. Others argue that e-learning has several issues, such as isolating pupils and limiting contact time. It requires strong drive and time management skills to prevent such outcomes. Typically, there are forty people in each class at a university, and sometimes there are two or three classes per course. Each English student has unique issues, and the traditional classroom setting cannot accommodate individualized instruction. The constraints of teachers and the individualization of pupils are conflicting; thus, it is vital to implement new digital technology to address learning difficulties and enhance the learning impact. Additionally, homework or assignments and examinations are taken online [7]. E-learning is not a novice notion; practically all educational institutions across the world utilize it in some capacity. However, the system's usefulness remains uncertain. Very few research have examined the impact of e-learning on the academic performance of EFL students. This literature review highlights some of the most important research and review papers in this area. It aims to give a more comprehensive knowledge of the efficacy of e-learning and its problems in the EFL education setting.

2. Organization of the Text

2.1. Benefits of E-learning in EFL education

Modern technology has brought the classroom experience to the student's phone and computer, which provides convenience for teachers and students to have learning opportunities. Social media and online forums are becoming useful learning tools for students. Current language acquisition programs, such as Duolingo, motivate pupils to excel. Technology has provided an alternative instructor for language acquisition, but a teacher's efforts cannot be discounted. The new technology provides new language-learning methods that allow the student to select his or her own goals. Consequently, news systems function as artificial instructors. For example, Duolingo offers a really interesting feature that facilitates second language acquisition [8]. Technology has filled the gap created by the traditional method of language learning since it gives pupils access to previously unavailable materials. Additionally, rural students with limited resources may now easily access instructional materials. In addition to improving access to learning resources, technology also facilitates the storing of acquired knowledge for future reference. Moreover, teaching materials may be readily created, updated, and distributed among students. Learners can feel autonomy due to the potential of technology to separate them from customary surroundings. Learning a second language through the usage of the second language is more cost-effective than the conventional method since it eliminates student-teacher interaction, hence minimizing the cost of paying the instructor. New technology plays a crucial function in enhancing the veracity of learning materials since it provides

the most reliable learning resources. On the other hand, the authenticity of the materials promotes student autonomy by allowing them to choose their resources [8]. Students have access to a variety of learning tools available on the Internet.

Another advantage of virtual e-learning is that students may be more at ease in their comfort zones (e.g., home), so eliminating any anxiety that may be triggered by being in a real school facility. Often, pupils might have difficulty concentrating since they are so anxious about their new surroundings. This can enable studying to become much more challenging. Therefore, being at home may help them overcome these sentiments and better absorb their material. When studying at home, students have access to a variety of distractions. In a traditional offline classroom, pupils are not permitted to use their phones or watch television. However, these items are accessible to pupils at home. It is extremely difficult to prevent kids from playing video games during a teacher's online lesson. Many professors have held Google Meet sessions after school for pupils to ask any questions they may have refrained from asking in class. Teachers at the OH Math Department are good examples of individuals who have improved their pupils' comprehension using this method [8]. A youngster who wishes to remain anonymous attributes an easier learning process to the efforts of several professors, stating that although acquiring knowledge was first difficult, it eventually became flexible. Virtual learning has a bright future, for whatever long it may exist, since professors and students have a mutual understanding and admiration. As students prepare for the remainder of the school year, they should be aware of both the benefits and drawbacks of virtual learning. Students should be able to succeed in both traditional and online settings. In the end, though, it is up to the student to buckle down and make the most of this one-of-a-kind opportunity. Given this, the efficacy of e-learning can be stimulated to a large extent provided that teachers and students work in tandem.

2.2. Challenges and Practical ways for E-learning

Montaño and Kasprzyk identified some obstacles and suggested solutions for addressing them. Technology may be an annoyance, which emphasizes the need of establishing a framework and culture of respect from day one, identify particular tasks, periods throughout the class, and teachers' precise goals for enabling technology use in the classroom [5]. There is widespread skepticism over the impact of technology on kids' verbal communication skills. Therefore, designing classroom assignments that incorporate technology, oral presentations, and teamwork tends to encourage students to be adaptable in their learning and interactions. Especially during online classes, group and pair work play an important role. When students utilize what they have learned to socially create knowledge, learning is reinforced. If students are simultaneously exposed to new material and knowledge, they will retain part of it and lose the rest. If students utilize the new information and knowledge to construct something together or to solve an issue through cooperation or interaction, they will learn and retain it as they discuss various problem-solving strategies, activate their knowledge, and learn from one another [9]. By collaborating, the students are learning from one another and making decisions as a group that will result in a product of higher quality. This form of interactive learning also promotes the development of communication skills and interpersonal relationships. Last but not least, invisible peer supervision occurs. It tends to foster personal learning motivation, which is part and parcel of students' learning efficiency. Creating expectations and rules for the pupils and adhering to them will be essential if they are to respect teachers' limits. It is preferable to employ the technology tools that students already own (e.g., their smartphones, computers) for productive learning experiences, rather than to pretend that these gadgets do not exist [9].

The installation and use of digital courses in the present e-learning environment become crucial for measuring performance as the global recognition of the incorporation of technology into colleges and higher education grows. In this context, institutions face various ongoing obstacles when employing technology, particularly e-learning, which has recently become a technological difficulty. It is also shown that technological obstacles effect significantly the use of e-learning at universities [9]. In contrast to this belief, some researchers have identified technology, communication tutors, and

learner quality as significant aspects that have has a dramatic impact on the efficiency of e-learning. Wang also found that educators must have a favorable attitude about the usage of e-learning in order to properly implement the technology in their courses [10]. For the benefit of e-learning in EFL provision, Wang suggest that the learner has control over the location, speed, and time [10]. Therefore, It is suggested that universities begin adopting ICT technologies in teaching and implementing EFL education since they are a widely acknowledged method for promoting learning [11]. In addition, the authors argue that e-learning provides a feasible and appropriate platform for developing nations to enter the knowledge economy. It suggests that education should be bolstered by the application of technology and approaches of information and communication. The deployment of e-learning is heavily influenced by a variety of variables.

The most important component in determining the reason for which students use e-learning is the students' approach to using this technology. Their decision to use this technology is also supported by their subjective culture, particularly in the influence of other people. The concept of e-learning accessibility is crucial for identifying their acceptance-related behavioral aim. According to Ali, elements linked with talents, a good attitude, self-confidence, enjoyment, significance, intent to utilize, and encouragement are all related [12]. Therefore, EFL Learners are eager to accept the adoption of technology and the transition to e-learning. Ali assesses the faculty members' and students' perceptions of e-learning in the English departments of several educational institutions [12]. The authors remark that their response was good and revealed that learning was more advanced in an e-learning environment compared to the conventional way. According to Syakur and Sabat, students who used computer-assisted learning in conjunction with the conventional technique performed better than those who relied solely on the conventional method [8]. Providing professional teacher training on the technology components of e-learning is the first step in attaining educational success; nevertheless, training for changes in education is the primary challenge [13].

2.3. Ways to maximize the effectiveness of e-learning in pedagogy

The efficiency of EFL classroom instruction is dependent on the instructor's abilities [14]. It has been demonstrated that the E-learning module is consistently successful, and students may easily return to the course if necessary. E-learning has the advantage of conveying the same message to all participants, which is appropriate for compliance-related messages [15]. E-learning is the most cost-effective alternative to traditional learning methods [16]. The instructor-select training looks to be affordably priced. Zhang argues that environmental change fosters the evolution of e-learning design. They conclude that active teaching strategies are crucial for merging key literacy skills with well-organized information, which was previously impossible [13]. However, further study illustrate that EFL students have control over their material, education order, education steps, time, and media through e-learning. It also allows individuals to revise their understandings in order to assess their learning results [17]. This study evaluates the efficacy of online professional development and information transfer to the EFL classroom. The research indicates that knowledge transmission is effective when instructors' online learning practices are hopeful and respected. Teacher professional development through online modules has a big influence on students by appealing to them through dependable and expressive learning experiences [18]. Knowledge for learners has expanded on a large scale, posing a problem for them since they have less time to study. E-learning emerges as the ideal choice for enhancing the capacity to acquire information at their own pace. E-learning systems provide students with online classrooms, allowing them to begin and complete courses at their convenience. Research indicated that 94% of students consider e-learning as a means of test preparation [13]. Donitsa-Schmidt and Ramot indicate that the majority of pupils retain EFL theoretical information better while using e-learning systems. They also believe that e-learning pupils are more content with their EFL learning techniques. E-learning needs forty to sixty percent less employee time than classroom training, and its success rates are eight to ten percent higher [9].

2.4. Opportunities for e-learning in the Covid-19 epidemic

Despite the fact that Covid-19 has posed several difficulties for the higher education field, it has been acknowledged that this epidemic has also offered opportunities. These prospects encompass new strategies and tools for online learning and capacity building [19]. For example, the lockdown enacted as a result of Covid-19 drove colleges that previously employed traditional teaching techniques into the digital realm [20]. This necessitates that institutions find creative methods of delivering instruction without sacrificing quality [20]. Moreover, some research highlight how the Covid-19 epidemic paved the way for the creation and expansion of AI-based online EFL education [8]. The pandemic has necessitated modifications to the old operational models and led to the emergence of new business models across industries. As a result of the epidemic, there has been a significant shift in how education-related solutions are formulated. New technology has been integrated into online education, supporting blended learning and innovative teaching styles. Initially, it was difficult, since the process required multiple modifications to become productive and efficient. Gradually, modern technology facilitates contact with students via voice conversations and real-time learning tools. Analysis of the data revealed that live streaming enhanced student involvement and motivation to study and complete assignments. Ali analyzed the impact of information communication technology and other online platforms on the brand image of tertiary educational institutes in their study [12]. With the expanding of the pandemic, there has been a shift in instructional design and training, presenting institutions with both a problem and a chance for creativity. Students have benefited from cutting-edge technology such as ICT (Information and Communications Technology) and e-services that have emerged in the education sector. The study asserted that e-learning could enhance the learning efficacy of pupils, thereby enhancing their productivity. The development in student comprehension enables institutions of higher education to attain high levels of student satisfaction by providing access to quality education supported by technology. The researchers performed a study to determine the relationship between student happiness and a university's overall brand image. According to the data, e-learning is an essential component of online learning in emergency situations. With the improved ICT infrastructure, students' e-learning experiences are increased, which creates a conducive atmosphere for the EFL instructional materials. When students are satisfied with their EFL learning effectiveness after appropriately tapping into e-learning strategies, the institution can attract and retain new students in its various learning programs, thereby reducing student turnover [19]. It is also stated that, as a result of online teaching and learning, both students and instructors will hone their online communication and interpersonal skills via consistent exposure to online platforms [13]. The Covid-19 epidemic also gave opportunities for fresh study in a new field, more use of digital data gathering methods, and greater virtual sharing of research results. This offered researchers and academics the new digital experiences required for their capacity development. Consequently, difficulties and possibilities coexist in the context of the epidemic.

3. Conclusion

To sum up, E-learning carries with it a set of benefits in addition to certain drawbacks. E-learning is a mode that is particularly effective due to its lower cost. It keeps EFL students engaged, and it reduces the stress that is connected with traditional learning, amongst other benefits. On the other hand, it does have certain restrictions. One of the restrictions is that children living in disadvantaged locations may have limited access to technology, which prevents them from making the most of their educational opportunities. Additionally, not all lecturers or teachers in the EFL classroom will be able to properly transfer their expertise to their students through the Internet. Because of this, the information that is gained through e-learning has to be subjected to rigorous analysis, and effective learning needs to be structured in such a way that it provides the most potential benefit to both the students and the teachers. EFL Education received over the internet is not only more convenient but also less harmful to the environment. E-learning has the potential to be the most efficient means for

disseminating information across international borders, provided that both students and educators receive the necessary assistance. Despite the fact that the Covid-19 pandemic has posed several obstacles for higher education institutions throughout the globe, it has also created opportunities for innovation and capacity building. Regarding the influence of Covid-19 on academic achievements, there is a dearth of empirical evidence. Therefore, it is advised that more studies be performed to assess the short- and long-term effects of Covid-19 on e-learning efficiency.

References

- [1] Brusilovsky, P., & Maybury, M. T. (2002). From adaptive hypermedia to the adaptive web. *Communications of the ACM*, 45(5), 30-33.
- [2] Singh, J., Steele, K., & Singh, L. (2021). Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & Post-Pandemic World. *Journal of Educational Technology Systems*, 50(2), 140-171.
- [3] Amin, I., Yousaf, A., Walia, S., & Bashir, M. (2022). What Shapes E-learning Effectiveness among Tourism Education Students? An Empirical Assessment during COVID19. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 30, 100337.
- [4] Rosenberg, M. J. (2001). *E-learning: Strategies for delivering knowledge in the digital age* (Vol. 9). NY: McGraw-Hill.
- [5] Montaña, D. E., & Kasprzyk, D. (2015). The integrated behavioral model, theory of reasoned action, and theory of planned behavior. In K. Glanz, B. K. Rimer, & K. "V." Viswanath (Eds.), *Health behavior: Theory, research, and practice* (pp. 95–124). Jossey-Bass/Wiley.
- [6] Puri, S. (2018). 5 Advantages of E-learning. *Training Industry*. Retrieved from <https://trainingindustry.com/articles/e-learning/5-advantages-of-e-learning/>
- [7] Mohammadi, N., Ghorbani, V., & Hamidi, F. (2011). Effects of E-learning on language learning. *Procedia computer science*, 3, 464-468.
- [8] Syakur, A., & Sabat, Y. (2020). The Effectiveness of Cooperative Learning (STAD and PBL type) on E-learning Sustainable Development in Higher Education. *Journal of Development Research*, 4(1), 53-61.
- [9] Nortvig, A. M., Petersen, A. K., & Balle, S. H. (2018). A Literature Review of the Factors Influencing E-Learning and Blended Learning in Relation to Learning Outcome, Student Satisfaction and Engagement. *Electronic Journal of E-learning*, 16(1), pp. 46-55.
- [10] Wang, Y. S. (2003). Assessment of Learner Satisfaction with Asynchronous E-Learning Systems. *Information & Management*, 41(1), 75-86.
- [11] Herrington, A., Herrington, J., Hoban, G., & Reid, D. (2009). Transfer of Online Professional Learning to Teachers' Classroom Practice. *Journal of Interactive Learning Research*, 20(2), 189-213.
- [12] Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher education studies*, 10(3), 16-25.
- [13] Zhang, D. (2004). Virtual Mentor and the lab system-toward building an interactive, personalized, and intelligent e-learning environment. *Journal of Computer Information Systems*, 44(3), 35-43.
- [14] Smith, D., & Hardaker, G. (2000). E-learning innovation through the implementation of an internet supported learning environment. *Journal of Educational Technology & Society*, 3(3), 422-432.
- [15] Cheng, M., Chan, K., Y.F. Tang, S., & Cheng, A. (2009). Pre-service teacher education students' epistemological beliefs and their conceptions of teaching. *Teaching And Teacher Education*, 25(2), 319-327.
- [16] Hung, S. Y., Yu, W. J., Liou, K. L., & Hsu, S. C. (2009). Exploring e-learning effectiveness based on activity theory: An example of asynchronous distance learning. *MIS REVIEW: An International Journal*, 15(1), 63-87.
- [17] Surjono, H. D. (2011). The design of adaptive e-learning system based on student's learning styles. *International Journal of Computer Science and Information Technologies*, 5(2), 2350-2353.

- [18] Shors, T., Anderson, M., Curlik, D., & Nokia, M. (2012). How neurogenesis maintains cognitive fitness: Behavioral Brain Research (2nd ed., pp. 450-458). Department of Psychology, Center for Collaborative Neuroscience, Rutgers University, Piscataway, NJ, 08854, United States: Elsevier.
- [19] Donitsa-Schmidt, S., & Ramot, R. (2020). Opportunities and challenges: teacher education in Israel in the Covid-19 pandemic. *Journal of Education for Teaching*, 46(4), 586–595. <https://doi.org/10.1080/02607476.2020.1799708>
- [20] Ratten, V. (2020). Coronavirus (Covid-19) and the entrepreneurship education community. *Journal of Enterprising Communities: People and Places in the Global Economy*.