# A SYSTEMATIC REVIEW OF RESEARCH ON EFL ONLINE LEARNING: EFFECTIVENESS, CHALLENGES, LEARNING TOOLS, AND SUGGESTIONS

Heri Kuswoyo, Akhyar Rido and Berlinda Mandasari
*Faculty of Arts and Education, Universitas Teknokrat Indonesia*
*Pagar Alam Street No 9-11, Kedaton, Bandarlampung, Lampung, 35142, Indonesia*

## ABSTRACT

Due to COVID-19 pandemic, educational departments such schools, colleges, and universities have been experiencing significant disruptions. All teaching and learning activities of face-to-face learning have switched to online learning. This study provides a systemic review of the literature with the aim to investigate the effectiveness, challenges, learning tools, and suggestions in EFL online learning based on an analysis of 40 published article journal from 2019 to 2022. This study has not yet been reviewed in the literature as part of a systematic review of studies. This study is based on Kitchenman's (2009) systemic literature review (SLR) approach, which allows it to gather data from a variety of sources. The dataset has been collected from SCOPUS databases. These data were analysed using Creswell's (2012) content analysis. The research findings revealed that all e-learning tools (e.g., *Voki*, *LMS 'TES Blended Space'*, *Pigai*, *Zoom meeting* etc) used by universities teachers were very effective and beneficials for learners. However, some challenges were also identified during learning activities such as students lack of learning climate, poor internet connections, financial problems, technical problems, students' demotivation etc. Thus, the research findings suggested three aspects should be considered, namely a) having extensive and high-quality online resource access, b) using online resources on a regular basis, and (c) not only students but also teachers are being trained to use ICTs-in. In addition, teachers need to keep working on reinforcing the connection between digital technology and education meanwhile students need to made aware that it is acceptable to use digital media even it the most formal of educational settings. To summarize, this study suggests that once the Covid-19 pandemic is ended, the use of technology integration on online learning in EFL classrooms can be extended for equitable quality education for students.

## 1. INTRODUCTION

The pandemic Covid-19 has changed the entire educational sector and forced all academics and students to switch to digital mode of teaching and learning process suddenly (Huang et al., 2021). All in-person face-to-face learning was instantly replaced with entirely online learning (Buhari, Suganya, & Rajaram, 2022; Purwati, Suryawati, & Eliwarti, 2022; Chandra & Palvia, 2021; Al-khresheh, 2022). Online learning models carry their significant advantages, in their increased accessibility and adaptability and in their students' autonomy and independence (Mihai et al., 2022). It can be seen from the use of e-learning platforms rapidly such as Google classroom and Zoom meeting in their learning (Szopinski & Bachnik, 2022; Perveen, 2016). Online learning has the ability to improve teaching and learning by revamping traditional classroom instructional methodologies and improving the quality of learning experiences (Basar et al., 2021). However, even online teaching has many advantages, the traditional offline teaching can completely be replaced (Song et al, 2021). As online education becomes more popular in the future, colleges should make greater efforts to improve it (Song et al., 2021). It can be seen that most teachers nowadays are still striving to elevate the quality of online learning engagement (Lie et al., 2020; Adnan & Anwar, 2020) in Thongmak & Ruangwani (2021). In their study, Huang et al. (2021) reported that in online teaching, it is extremely time-consuming and exhausting. Thus, Teachers must improve their technology skills in order to teach online (Thongmak & Ruangwanit, 2021; Chandra & Palvia, 2021). In respond to these issues, most of the ministry of education

in all countries suggested to all universities to apply online learning in all courses, including EFL online learning classroom. According to Rahimi and Hasheminasab (2020), EFL language learning and teaching have undergone considerable changes as a result of immediate technological advancements and new pedagogical opportunities. It causes EFL teachers have 'various challenges in their endeavour to practice effective online learning and teaching (Zou et al., 2021). It is in line with William and Burden (1997). They argue that learning a foreign language is not simply learning the skills, rules or grammar, it involves self-image, cultural behaviour and way of being that impact on the social nature of the learner. It is also because as the passive recipients of a range of stimuli, learners need to achieve a desire outcome, which is ultimately language knowledge, predominantly from environment (Mihai et al, 2022). Then, from brain's cognitive process, learners also need a tool for language learning process to actively think about, participate with and make sense of the language learning process. At the end, learners need a community designed for fostering problem solving skills where social experiences, collaborations, and reflection lead to practical and interactive learning (Mihai et al., 2022).

Many researchers investigated EFL online learning during COVID-19, which give educational benefits, including online reading (Park, Yang, & Hsieh, 2014); English teaching (Al-khresheh, 2022; Hedman & Mannish, 2022; Purwati, Suryawati, & Eliwarti, 2022); oral presentation (Atifnigar et al., 2022); Debriefing in online English classroom (Kandasamy, Hua, & Sultan, 2022); and listening comprehension (Jiang et al, 2021). Al-khresheh (2022) reported that using blackboard technology improved EFL classes. As a result, technical obstacles persist in efficiently integrating this technology into modern classrooms. Then, Hedman and Mannish's (2022) work provided fresh perspectives on collaborative agency in English online distance learning from the setting of Sweden. Another study conducted by Kandasamy, Hua, and Sultan (2022), who explored the the debriefing 's effects in online ESL classroom. According to the research, debriefing can help students in teamwork, critical thinking, reflective thinking, and easy understanding. Purwati, Suryawati, and Eliwarti (2022) indicated that students' evaluations of video lectures were high, and this was consistent with how they positively regarded video lectures in the flipped classroom. Then, Atifnigar et al. (2022), from Afghanistan context, revealed that class-size related factor is the first influential factor in affecting oral participation among students. The final study, conducted by Park, Yang, and Hsieh (2014), investigated the information-seeking strategies and decision-making processes of L2 readers while reading online. The results show that L2 readers use prior knowledge of the structure of both offline and online resources to help them with their online reading.

The time has come to assess the effectiveness of these efforts after several months, nearly three years of operation in this new highly virtual mode (Szopinski & Bachnik, 2022). Moreover, it is also very essential to discuss the challenges, learning tools, and the suggestions during the post-COVID 19 pandemic. According to Szopinski and Bachnik (2022), it is critical to ask questions about the quality of online teaching and student satisfaction because any unresolved issues may have long-term implications for the structure of the higher education sector and the future format of the programs designed and offered. In addition, the perspective of students, as well as universities and faculty members, is critical to the future design and delivery of online education (Szopinski & Bachnik, 2022). As a result, the current study conducts a systematic assessment of the most recent literature on EFL online learning classroom to analyse the effectiveness, problems, and suggestions in responding to the influence of the post-Covid-19 epidemic on education, as well as the key learning instruments. Consequently, this research aims to investigate (1) what were the effectiveness, challenges, and suggestions involved in the research on EFL online learning classroom? (2) What were the main learning tools involved in the research on online learning in EFL classroom?

## 2. METHOD

The method used in this study is systemic literature review (SLR) pioneered by Kitchenham et al. (2009). This strategy provides insights into a research problem and allows a study to collect information from a variety of sources (Al-Araibi, Mahrin, & Mohd, 2016). The techniques employed have also been adapted for use in the EFL online learning classroom. Adapting from Hisyam et al. (2021), the review process consists of three steps. They are planning stage, implementation stage, and final stage. In details, it can be seen in the following figure 1.
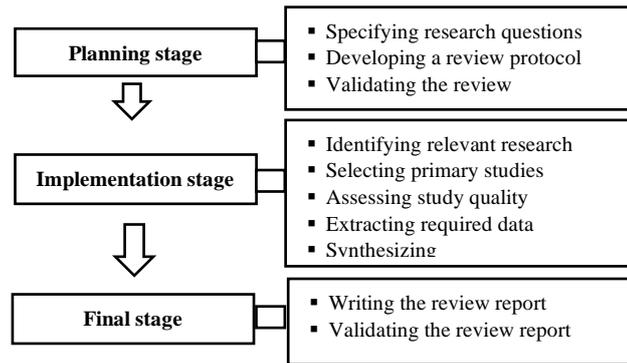
Figure 1. Steps in the review process (adopted from Hisyam et al, 2021)

First, in the planning stage, the present writers formulated two research questions, (1) what were the effectiveness, challenges, and suggestions involved in the research in EFL online learning? and (2) what were the main learning tools involved in EFL online learning? Then, in the next stage, the present writers selected a scientific publication database, from Scopus. Following that, the primary review process is required to aid in classification using the PICOC approach (population, intervention, comparison, outcomes, context). Following that, the identification process determined that the population is "online learning" in the context of "effectiveness, challenges, learning tools, and suggestions." The intervention section was carried out to obtain information on focuses, such as a publication on a year 2019 and 2022. In the selection process, the Scopus database (www.scopus.com) was used for the primary research using the Boolean operator (Search documents= ("online learning" OR "e-learning" OR "electronic learning") AND Search document=(EFL)). The literature type was set as 'article' and 'conference paper'. The research generated 55 articles published from 2019 to 2022. The reason for this limitation is to narrow the updated papers discussing online learning during COVID-19 pandemic. The present writers selected the articles based on the following criteria: (1) investigating EFL online learning; (2) concerning the effectiveness, challenges, learning tools, and suggestion in EFL online learning; (3) published article; (4) article in English; and (5) open access article. The present writers then checked the articles independently, and 15 articles were excluded. They were excluded as they were not about EFL online learning. Thus, a total for the review in this present study is 40 article journals. The data were retrieved and synthesized from the paper and analyse them using a content analysis (Creswell, 2012), a technique extensively used in humanities and the social sciences.

## 3. RESULTS

This study provides a systemic review of research with the aim to investigate the effectiveness, challenges, learning tools, and suggestions in EFL online learning based on an analysis of 40 published article from 2019 to 2022 from SCOPUS databases (see Table 1).

Table 1. Publication years and journals (scopus.com)

| Year | Journal Names | Studies |
|---|---|---|
| 2022 | *Journal of Language Teaching and Research, World Journal of English Language; Journal of language teaching and research, SiSAL Journal, Studies in English Language and Education, Theory and Practice in Language Studies, Asia Pacific Journal of Second and Foreign Language Education, Cogen Arts and Humanities, SAGE Open, World Journal of English Language* | Mudra et al, (2022); Anggoro & Khasanah (2022); Zhang., Gao, & Chen, (2022); Mohamed (2022); Fischer & Yang (2022); Jeong (2022); Kristianto & Gandajaya (2022); De Gracia et al. (2022); Muharom., Nugroho., & Putra., (2022); Maretha & Anggoro (2022); Phanphech (2022); Reflianto (2022); Tang & Quan (2022); Wangdi & Shimray (2022); Dai (2022) |
| 2021 | *Revista de Lingustica y Lenguas Aplicadas, Journal of language and education, 3L: Language, Linguistics, Literature, Ilha do Desterro, Corpus Pragmatics, Indonesian Journal of applied linguistics, SAGE Open, International Journal of Language Education, Journal of language and Education* | Hanh & Huong (2021); Damayanti & Rachmah (2020); Di Zou et al (2020); Farros (2020); Heng & Sol (2020); Rahaman (2021); Sulha., Famela., Harahap, (2021); Warman & Gusti (2021) |

| 2020 | *RELC Journal, ReCALL, Theory and Practice in Language studies, Rupkatha Journal on Interdisciplinary studies in Humanities* | Zaghlool (2020); Gao (2020); Hou (2020); Akhter (2020); Regmi & Jones (2020). |
|------|------|------|
| 2019 | *Journal of Language and Literary Studies, Indonesian Journal of applied linguistics, Humanities & Social Sciences Reviews* | Marjanović (2019); Farhan & Yusoff (2019); Pouromid (2019); Tamine (2019) |

## 3.1 Effectiveness, Challenges, Learning Tools, and Suggestions in EFL Online Learning

EFL online teaching and learning has been largely conducted during the COVID-19 period all over the world. Based on the review, online learning can create new learning as perceived by students (Suharsih & Wijayanti, 2020), and has been found beneficial to learners' EFL learning (Zhang & Wu, 2022; Mohamed, 2022). However, the effectiveness, challenges, learning tools, and suggestions of EFL online teaching and learning is a need to be investigated (Zou et al., 2021). Table 2 shows the review of effectiveness, challenges, learning tools, and suggestions in EFL online learning conducted by 41 studies.

Table 2. Review of Effectiveness, challenges, learning tools, and suggestions in EFL online learning

| Effectiveness | Challenges | Learning tools | Suggestions | Relevant References |
|------|------|------|------|------|
| Students are enthusiastic about using ICTs to improve their English pronunciation | Some students continue to prefer traditional teaching methods, Slow video uploading, be afraid of making mistake | Voki, Open Educational Resource (OER), Flipgrid-based portfolio | Access to a wide range of high-quality online resources, regular use of online resources, and training not only students but also teachers | Datt & Singh (2021); Hanh & Huong (2021) |
| The use of LMS TES Blend Space had positive influences in learning EFL | Instructor should develop activities in the LMS | LMS 'TES Blend Space' | LMS TEST BlendSpace has promoted students' self-directed learning skills and improved learning performance | Jiang et al, (2021); Zhao, Zhang, & Chen, (2022) |
| COIL-based curricula can provide valuable opportunities for learners to engage in intercultural interaction without the expense of traveling abroad | Learner's English proficiency | Collaborative Online International Learning (COIL) program | To fully utilize the potentials of computer technology and the internet, innovative curricula for foreign language pedagogy are required | Pouromid (2019); Huang, et al, (2021); Kandasamy, et al, (2022) |
| EFL university students were enthusiastic about using CALL online writing activities and Pigai in the teaching and learning of writing | Students lack of learning climate | CALL online writing activities, Automated essay scoring (AES)'s Pigai | University professors should incorporate CALL online writing activities into their writing classes on an ongoing basis. Students can use Pigai for self-directed learning | Hou (2020); Zaghlool (2020) |
| The DMC process increased students' knowledge of the importance of empathy when participating in online activities. | Students have lower English language proficiency or low student participation | Digital Multimodal Composing (DMC) | Students with lower English language proficiency need to trained differently by mixing English with their first language | Tour & Barnes (2022); Jiang et al (2021); |
| All applications used by teachers were beneficial and effective to be used | Limited resources, poor connectivity, technical issues, inability to operate program like Ms Word, ppt, and financial problem, more time and energy are demanded to prepare for lesson | Zoom, Google classroom, & LMS applications, QQ, Tencent meeting, Blackboard, Moodle, Facebook Closed Group (CMC) | Give students access to tools like the free messaging app in the online learning framework. Teachers may modify the techniques they learned | Santoso (2021); Al-khresheh (2022); Hisyam et al (2021); Farhan & Yusofi, (2019); Mudra et al, (2022) |

From Table 2 above, it can be seen that students and teachers have positive feedbacks towards the use of EFL online teaching and learning during COVID-19. Datt & Singh (2021) study reported that students have a positive attitude towards ICTs and Open Educational Resources (OERs) for learning pronunciation using Voki. Voki is an online tool like the 'text-to-speech' option for developing students pronunciation performance. Consequently, despite the potential benefits of OERs like Voki, some students still favor receiving education via traditional instructional approaches. Thus, Datt & Singh (2021) suggested that in the future, universities and teachers must have three aspects to be considered. They are as follows: a) having broad and high-quality access to online resources, b) regularly using online resources, and c) teaching not only students but also teachers to use ICTs. Similar studies, Hanh & Huong (2021) claimed that an online platform, flipgrid-based portfolio also significantly can be used to improve learners' speaking performances in terms of pronunciation and fluency. In terms of online applications, Online Social Network (OSN), such as Zoom, Google classroom, & LMS applications, Blackboard, Moodle etc were dominantly used by university teachers to teach online. They were beneficial and effective to be used in EFL online learning (Farhan & Yusofi, 2019; Mudra et al, 2022; Zhao, Zhang, & Chen, 2022; O'Doherty, 2018). However, based on the reviews, implementing such applications in the classroom has been challenging such as poor connectivity, technical issues, inability to operate program like Ms Word and power point, financial problem, more time and energy to prepare lesson, and students lack of learning climate.

Table 2 also reveals that a wider range of e-tools were employed in online learning activities. Not only OSN but also other online learning platforms such as video-making tools, video watching tools, online discussion tools, reading tools, and writing tools were also applied by university teachers. The video-making tools included Digital Multimodal Composing (DMC) video production. Jiang (2020) claimed in his study that the usage of DMC such as video creation, podcasting, and webpage designing as a viable and productive English language learning activity is extensively documented in the field of English language education. The DMC process raised students' understanding of the importance of having more empathy when participating in online activities. Beside DMC could enhance students' awareness, students could also learn how to use digital technologies for resolving important social issues and then became more active and responsible participants online. However, the reviews suggested that students have lower English language proficiency or low student participation need to trained differently by mixing English with their first language. Meanwhile, in terms of writing, the writing tools included the Automated essay scoring (AES)'s Pigai (Hou, 2020) and CALL online writing activities (Zaghlool, 2020). AES (automated essay scoring) system, such as Pigai, is a computer technology that evaluates written texts using artificial intelligence, computational linguistics, and cognitive science foundations. Pigai, the most extensively used of them, is intended to assist Chinese EFL learners in evaluating their own works by offering ratings and feedback based on the target text. In the future, Pigai can be used students as self-regulated learning. Meanwhile, Zaghlool's (2020) study stated that the incorporation of computer-assisted language learning (CALL) into EFL programs has recently become an integral aspect of the teaching and learning process. According to the findings of the study, EFL university students had positive opinions regarding using CALL online writing activities in teaching and learning writing. Newly added online learning platforms included tools for learners to experience intercultural interaction without having to bear the burden of traveling overseas. The tool is called as COIL (Collaborative Online International Learning). COIL is a type of online learning that involves classes from two or more countries in order to raise learners' understanding of intercultural competency (Pouromid, 2019).

For online discussion tools, *Facebook messenger* and *Facebook Closed Group (CMC)*, were mainly used by university lecturers (Farhan & Yusoff, 2019). Computer-Mediated Communication or CMC is defined as the direct use of computers in text-based communication processes. According to Santoso (2021), CMC can occur synchronously or in real-time, as well as asynchronously, when people interact in a delayed fashion. Along with the advancement of CMC tools, computer interactions now include not just reading and writing but also speaking. Based on the findings, the learners had good attitudes toward the integration in online discussion forums, and their perceptions of the effects of online discussion forums on new learning were disclosed. However, one important issue that impedes the quality of engagement is the lack of an internet connection.

## 4. CONCLUSION

Based on an analysis of 40 published articles from 2019 to 2022, this study aims to investigate the effectiveness, obstacles, learning tools, and suggestions in EFL online learning. The results of the present review indicate that the varied and integrated e-tools for teaching and learning in EFL online classroom (e.g.,Voki, LMS 'TES BlendedSpace', Facebook messenger, CMC, Pigai, Zoom, Google classroom, & LMS applications, Blackboard, Moodle, and Flipgrid-based portfolio used by university teachers were effective and beneficials. Both teachers and learners get more insights in gaining online teaching and learning. They also have more flexibility in teaching learning time because they can teach from anywhere. Further, the use of these various learning tools is able to overcome teaching and learning during COVID-19 pandemic. According to present review, some challenges also identified in the pre- teaching, during teaching, and post-teaching. In terms of teachers, more time and energy are demanded to prepare for lesson and use big internet data. Teachers also sometimes got some problems such as limited resources, poor connectivity, technical issues etc. In similar challenges, learners also face some problems such as some students still prefer traditional instruction models, network problem, demotivation, internet data, technical issues, inability to operate program like Ms Word and power point, financial problem and many others.

Besides, this study also gets some suggestion related to the use of e-leaning tools in EFL online teaching and learning. In general, teacher or university needs to consider three aspects namely a) having broad and high-quality access to online resources, b) making use of online resources on a regular basis, and (c) training not only students but also teachers to use ICTs-in. Then, teachers also need to keep working on reinforcing the connection between digital technology and education meanwhile students need to made aware that it is acceptable to use digital media even it the most formal of educational settings. The implication of this research findings could give contributions to policy makers, stakeholders, and teachers in terms of providing for the effectiveness, challenges, learning tools, and suggestions in EFL online learning during covid-19 pandemic and in the future learning. The current study has numerous limitations because it only analysed 40 articles on online learning published in SCOPUS journal databases between 2019 and 2022. A broader range of published sources, such as SSCI, IEEE, and SINTA journals, may be considered in future research. To that end, the present writers feel the review demonstrated that online learning could increase the capabilities of both teachers and learners.

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