A Comprehensive Review to Identify the Challenges and Opportunities of Using Digital Technology in English Teaching in Higher Education

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Abstract: This study aims to explore the challenges and opportunities of using digital technology in English teaching in higher education. Transforming the teaching and learning process from face-to-face to online learning by utilising digital technology devices and internet connectivity becomes challenging for lecturers and students. However, there are many opportunities of integrating digital technology and education. This study uses narrative literature reviews to identify the challenges and opportunities of utilising digital technology in English teaching in higher education institutions. A number of challenges and opportunities are found in using digital technology in English teaching, including digital technology access, flexibility, engagement, pedagogical dimension, personal dimension, range of sources and cultural awareness. Furthermore, this research can provide significant insight and understanding regarding the difficulties and benefits of integrating digital technology and education in higher education institutions, particularly since the COVID-19 pandemic. It also recommends further research regarding integrating digital technology and education, particularly in English teaching in higher education institutions.

Introduction

Background

English teaching (ET) in higher education (HE) has dramatically transformed since the COVID-19 pandemic. The transformations include the ways of mode delivery of teaching and learning English from face-to-face (F2F) to the online learning (Yusriadi et al., 2022). Online learning requires digital technology (DT) devices (Zuhairi et al., 2020) and internet connectivity (Ngoasong, 2022) to support the ET process. The development of digital technology has improved significantly (Ahmad et al., 2022), and it has challenges and opportunities in the ET process in HE institutions. This becomes one of the issues for lecturers and students when delivering teaching and learning online.

Research Aim and Objectives

This study aims to identify and understand the challenges and opportunities of using DT in English teaching and learning activities in HE institutions. Furthermore, the objective of this study is to conduct a comprehensive review of the challenges and opportunities of using DT in ET in HE institutions. There are many challenges and opportunities that exist in using DT in ET in HE institutions. The challenges and opportunities include the digital technology access (Widyanti et al., 2020; Zuhairi et al., 2020), flexibility (Martha, 2021), engagement (Galvis & Carvajal, 2022), pedagogical dimension (Thaheem et al., 2021), a wide range of sources (Nazarov et al., 2021), personal dimension (Viner et al., 2020), and cultural awareness (Lu et al., 2022). These criteria are explained more in the result and discussion parts.

The research questions of this study are; a. What are the challenges of using DT faced by the lecturers and students in teaching and learning English in HE institutions? b. What are the opportunities for using DT for lecturers and students in teaching and learning English in HE institutions? The authors comprehensively review previous studies on using DT in education, particularly in ET in HE institutions to answer these questions.

To summarise, this study is important in particular for some reasons. Firstly, digital technology has transformed how people learn and communicate, but more research needs to be conducted on applying DT in HE institutions (Lestari, 2020; Manurung et al., 2020). Secondly, the research on DT in HE institutions requires further investigation to identify more benefits of using technology in ET by presenting different research methodologies and various data collection methods (Sufyan, 2020). Therefore, this study aims to enhance the opportunities and reduce the challenges of utilising DT in the ET process. Hence, the expected outcome of this research is to contribute to the body of knowledge on the use of DT in ET at HE institutions.

Method

This study uses qualitative data. Qualitative data is exploring and understanding the human and social

phenomena from individuals or groups, which involves non-numerical data to explain the results of the study (Creswell, 2017). Also, qualitative data includes the interactions and situations of social phenomena described in narrative form (Halmes, 2010). Data for this study is undertaken from the relevant studies about integrating DT and education in HE institutions. The sources for the relevant studies are available in the references list. Furthermore, this study's data analysis type is inductive, particularly narrative analysis (Hesse-Biber, 2015). To summarise, this study applies a narrative review of relevant studies to identify the challenges and opportunities of using DT in ET in HE institutions.

Results

Digital Technology in English Teaching in HE Institutions

Digital technology in education refers to utilising digital devices with internet connectivity (Aldhafeeri & Male, 2015) that lecturers and students use in teaching and learning English. The digital devices that are mostly used are computers, laptops, tablets, and smartphones. Lecturers and students can succeed in English teaching and learning by applying advanced digital devices and internet connectivity (Dumbraveanu, 2021) in variation to the updated sources. For example, in the online learning mode of delivery, the teaching and learning process can be conducted from home using an internet connection and digital devices (Dumbraveanu, 2021). Lecturers and students can meet via Zoom meeting, Microsoft Team, or Google Meet (Martha, 2021) to deliver and discuss the English lessons.

 DT benefits the lecturers in designing the curriculum, evaluating students' understanding of the English learning process, and evaluating the teaching and learning program (Caprara & Caprara, 2022). Not only lecturers but also governments and stakeholders design and develop suitable curriculum content for all levels of education to achieve educational goals (Ngoasong, 2022). In addition, curriculum content, assessment and evaluation become the focus of using DT in ET. So, governments and lecturers may consider the arrangement of the curriculum and materials to assist the students in comprehending the lessons provided and suitable to the updated technology development (Ngoasong, 2022; Yuan et al., 2019).

Using DT in ET can be undertaken fully online and through blended learning. In online learning, DT may assist the students in continuing their learning activities from home and enhance their knowledge from the sources on the internet (Lee & Sylvén, 2021). Widyanti et al. (2020) also added that DT implements an innovative, independent, and collaborative learning environment that may allow students to study online. These learning activities could be set based on student's needs, and be student-centred rather than only lecturer-centred (Gherheş et al., 2021).

Compared to the blended learning approach, it combines F2F and online teaching and learning activities supported by advanced technology (Lalima & Dangwal, 2017; Lazar et al., 2020). This approach has grown significantly to transform F2F learning into digitalisation. The benefits of blended learning include making it

easy to understand the lessons from the lecturers and being open to discussion when the lesson is delivered F2F. Also, blended learning may fill the gap between audio-visual and kinaesthetic students by using stories in the digital educational format (Galvis & Carvajal, 2022).

Challenges in Using Digital Technology in English Teaching

There are many challenges the lecturers and students face in applying digital technology in English teaching in HE institutions. The challenges are related to digital technology access, pedagogical, personal dimension, and cultural awareness. Regarding digital technology access, applying DT is challenging on the technical side. Technically, online learning activities incorporate applying technology devices supported by internet access and applications such as social media platforms, websites, e-mail, YouTube channels, Microsoft Teams, Zoom Meeting, and Google Meeting (Aldhafeeri & Male, 2015).

However, practically, lecturers and students face difficulties using these applications because some are not commonly used in the teaching and learning process (Aldhafeeri & Male, 2015). These applications allow lecturers to deliver their lessons by utilising various kinds of software (Martha, 2021). The software may cause problems with the various advanced technologies, which the lecturers and students need to become more familiar with (Galvis & Carvajal, 2022). Also, the barrier to internet connectivity may impact the process of ET using DT in HE institutions (Lazar et al., 2020). Consequently, difficulties with internet connections can lead to severe problems in the online learning (Ngoasong, 2022).

The next challenge is engagement. Not all students can adapt quickly to online learning (Galvis & Carvajal, 2022). For instance, some students who have difficulties understanding visual material cannot receive meaningful lessons online but should combine audio and visual material (Ngoasong, 2022). Meanwhile, if some students have hearing issues, they will also have difficulties listening to the audio material (Lazar et al., 2020). Hence, this is also a challenge in using DT in ET for students with online learning.

The other challenge is the pedagogical dimension. Integrating technology and education requires pedagogical knowledge or pedagogical competence. Digital pedagogical content competence is proposed to upgrade the technological pedagogical content knowledge (Dumbraveanu, 2021). Digital pedagogical competencies can be defined as how digital technologies can enhance teaching or learning by considering pedagogical values (Dumbraveanu, 2021). Lecturers can develop their students' learning strategies to improve their English proficiency. For instance, using a recorded audio or video file while the meeting is delivered online. This method can assist the lecturers and students when referring to previous lessons.

The personal dimension is another challenge for the students and lecturers when applying digital technology in English teaching in HE institutions. Students face difficulties regarding the budget to purchase a personal laptop, smartphone, or computer and internet data to support online learning (Viner et al., 2020). Also, lecturers who are untrained in using digital technology for online teaching struggle to transfer or teach English to the students

(Thaheem et al., 2021). Furthermore, these personal problems become a challenge for online teaching and learning activities.

The last challenge is cultural awareness. Using DT in teaching and learning activities has impacted cultural awareness regarding the students' behaviour (Lazar et al., 2020). For instance, students' attitudes to learning from F2F to online learning are changing (Ngoasong, 2022). The lecturers can understand how students learn in online learning and the factors behind that. Also, understanding the students' behaviour is challenging regarding their cultural awareness of English teaching and learning using DT in HE institutions. Hence, the challenges identified and explained according to the previous research above answered the first research question.

Opportunities in Applying Digital Technology in English Teaching and Learning in HE Institutions

Besides the challenges, using digital technology in English teaching provides opportunities for English lecturers and students. Firstly, it is flexibility. Flexibility can be divided into two scopes (time and place). Online learning can provide flexible teaching and learning process between lecturers and students (Gouseti et al., 2020). Regarding the flexibility in place, the teaching and learning process can be conducted from home, the office, outdoors or indoors (Sufyan, 2020). In addition, lecturers may set a day and time to schedule a meeting on the Zoom Platform to transfer knowledge and discuss the lessons with the students to show flexibility in time (Ngoasong, 2022). This is more effective and efficient for lecturers and students regarding transport fees to the institutions.

Additionally, the opportunity for using digital technology in English teaching and learning is the wide range of digital sources available on websites or e-platforms (Nazarov et al., 2021). Since many applications are available, selecting the appropriate application to improve students' online learning ability is essential to enhance the benefits of using the platforms and applications in the English teaching and learning (Metruk, 2021). This approach can contribute to the student's self-confidence in online learning because of the range of platforms and applications supporting their learning. Also, the lecturers may be more creative in designing the lesson plan and providing various digital sources to improve their students' English skills.

In conclusion, previous studies identified some opportunities for lecturers and students to conduct online teaching and learning. These included flexibility in time and place (Gouseti et al., 2020) and a wide range of digital sources (Martha, 2021). The opportunities not only for the students but also for the lecturers in developing their strategies for teaching English in HE institutions. So, the second research question has been answered from the previous studies explained about the opportunities of using DT in ET in HE institutions.

Discussion

Based on the results found from the narrative review, the author identifies and classifies the challenges and

opportunities of using digital technology in English teaching and learning activities in HE institutions. Those challenges can be reduced by providing DT training for lecturers and students. Also, the opportunities can be optimised to increase students' English proficiency. In addition, the government and stakeholders may increase the DT facilities and internet connectivity to achieve the best service and quality of English teaching and learning online. The challenges and opportunities that have been identified are described in Table 1.

Table 1. Challenges and Opportunities Using Digital Technology in Education

Aspects	Challenges	Opportunities	Sources
Digital technology access	√		(Galvis & Carvajal, 2022; Lazar et al., 2020; Ngoasong, 2022)
Engagement	√		(Galvis & Carvajal, 2022; Lazar et al., 2020; Ngoasong, 2022)
Pedagogical dimension	√		(Dumbraveanu, 2021)
Personal dimension	√		(Thaheem et al., 2021; Viner et al., 2020)
Flexibility		√	(Gouseti et al., 2020; Ngoasong, 2022; Sufyan, 2020)
Wide range of sources		√	(Martha, 2021; Nazarov et al., 2021)
Cultural Awareness	√		(Lu et al., 2022)

Conclusion

Many challenges and opportunities exist for using digital technology in English teaching in HE institutions. The previous studies identified some problems and benefits in digital learning, which still require further investigation. Therefore, this study conducted a comprehensive review in identifying and classifying the challenges and opportunities of using digital technology in English teaching and learning. This study provides valuable insight to the lecturers and students in integrating digital technology into the English teaching and learning process.

The challenges in integrating DT into English teaching are DT access, engagement, pedagogical dimension, personal dimension, and cultural awareness (Thaheem et al., 2021). The challenges also include the digital technology training (Burns, 2013), limited access to digital devices (Zuhairi et al., 2020), and internet connectivity (Ngoasong, 2022). So, these challenges impact the English teaching and learning process in HE institutions when undertaking online learning.

However, many opportunities exist to integrate DT into English teaching and learning. They are flexible regarding place and time while conducting teaching and learning activities (Gouseti et al., 2020). They may attend the meeting with the lecturers from home and set the appropriate time between lecturers and students to achieve the goal of the lessons. Also, another opportunity is that a wide range of sources can be accessed online using digital technology, applications, and platforms to enhance their English skills. Then, the lecturers can access various sources to update their English knowledge (Nazarov et al., 2021). To conclude, this comprehensive review benefits lecturer and students in English teaching and learning in HE institutions by reducing the challenges and improving the opportunities for integrating DT and education.

Recommendations

This study limits about challenges and opportunities of using digital technology in English teaching in higher education institutions. Furthermore, the authors provide recommendations for further research in integrating technology and education in any discipline of study from primary to higher education institutions to reach the best service and quality of English teaching and to increase the students' English skills.

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