University English Language Teachers' Use of Digital Platforms for Online Teaching

Maryam Mohamed Amin[(⊠)], Norazha Paiman
The National University of Malaysia (UKM), Bangi, Malaysia
`maryam.amin@ukm.edu.my`

Abstract—Digital disruptions have affected higher learning institutions and forced educators across the globe to use digital platforms for online teaching. This paper presents the findings of a pilot study that investigated (1) the use of digital platforms for teaching online at a Malaysian university and (2) how university English language teachers used digital platforms for online teaching and learning. An online questionnaire survey was completed by 19 university English language teachers who volunteered to take part. Cross-tabulation analysis with frequency count and percentage distribution was used to analyse data, and short open-ended responses were coded for themes. Online web meeting platforms for synchronous language classes, learning management systems for task-based language learning, and cross-platform instant messaging applications for interactions and class discussions were the most popular digital platforms among university English language teachers. Teachers optimised those three platforms for teaching online and found that they were adequate for teaching online when facing students' problematic internet accessibility. Finally, this paper offers suggestions for the effective use of those digital platforms for teaching online at a university when internet access is an issue.

Keywords—digital platforms, university, English language teachers, online teaching, problematic internet access

1 Introduction

When the pandemic thrust educators around the globe into online teaching in a matter of weeks, educators worldwide were urged to conduct online classes even as they were not adequately prepared to do so or formerly had little interest in online teaching [12]. A systematic review by Ferri [14] reports that pedagogical challenges in online teaching include teachers' lack of skills in using digital platforms, the necessity for teacher training, and guidance on how to use digital technologies, including how to use interactive multimedia such as images, animations, or educational games as instructional materials.

Another common challenge that educators face worldwide is students' internet accessibility [7, 10, 12, 32]. Internet accessibility is also a stumbling block in online teaching and learning in Malaysia. When the Malaysian government imposed the closure of all schools, colleges, and universities in March 2020, it implemented full online teaching and learning at Malaysian universities, and internet access was an issue. According to the Digital Inclusion Report by Khazanah Malaysia [16], the problem is

not secluded in some geographical regions of Malaysia but the whole country. Additionally, the problem is not only restricted to university students but also among some educators. Statistics from the Department of Malaysia [13] show that internet coverage is 89% nationwide, implying that internet coverage is wide. Still, internet connection is relatively problematic in many parts of the country [16]. This problem hinders online teaching and learning as university students with problematic internet accessibility have limited access to participate in online teaching and learning activities.

As a result, ensuring inclusion for online teaching and learning for all students with problematic internet accessibility was a challenge among university English language teachers in this study. Problematic internet accessibility added extra stress for teachers conducting online classes, and teachers had to choose appropriate digital platforms to overcome this problem. Effective online teaching and learning require suitable digital platforms even with problematic internet accessibility [3, 11]. Furthermore, Koehler and Mishra suggest that teachers' technology pedagogy knowledge is crucial to determining the right digital platforms to use for effective online teaching and learning conditions [18, 19]. This paper looks at digital platforms used by university English language teachers for teaching online at university and how teachers use those platforms to ensure online teaching and learning, even for students with problematic internet access.
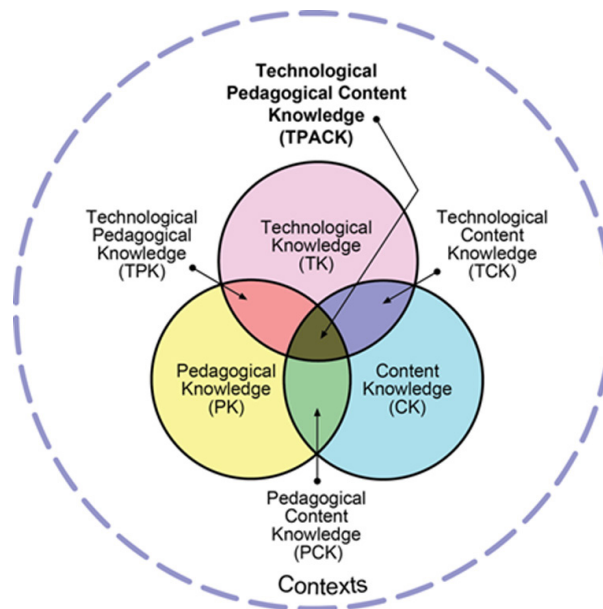
2 Literature review

2.1 Theoretical framework

Fig. 1. Technological Pedagogical Content Knowledge (TPACK) framework
Source: http://tpack.org

This study is underpinned by the Technological Pedagogical Content Knowledge (TPACK) framework [18]. The TPACK framework explains that content, pedagogy, and technology, are three categories of knowledge that interact in a sophisticated way. The framework generates the adaptable knowledge required to integrate technology into the classroom successfully. Koehler [19] argues that the three primary components of teachers' knowledge should be linked. The first component, content knowledge, refers to teachers' understanding of the subject they are teaching. The second component, pedagogical knowledge, relates to teachers' knowledge of teaching and learning processes and approaches. The third component, technological knowledge, refers to the ability of teachers to use technology effectively. Online teaching requires teachers' readiness to link content, pedagogy, and technology knowledge.

2.2 Teacher readiness in online teaching

Readiness to teach online can be defined as the state of educators' preparation to teach online [3]. A study carried out by Azar [2] on the readiness to implement online learning reported that English language teachers encounter many problems while conducting online classes. Based on this study, most teachers were not comfortable teaching online courses and conducted online sessions for only one or two hours. The study also reported that about half of the teachers possessed digital skills to conduct online classes for their students. The results of this study imply that teachers have basic digital skills but are still grappling with digital platforms for online teaching.

Bhaumik and Priyadarshini [8], in their study on e-readiness of online learning, reports that most learners found online learning ineffective and the techno pedagogical approach of teachers, digital skills of both teachers and learners need improvement. In another study on teachers' readiness and perception of online learning (n=806), two-thirds of the teachers used digital platforms for student-directed learning, and half used digital platforms to prepare learning materials [24]. However, the authors note that teachers hardly use digital platforms for synchronous and asynchronous online teaching activities. They proposed appropriate digital platforms such as video communication platforms, class management sites, and messaging apps for those teaching and learning activities.

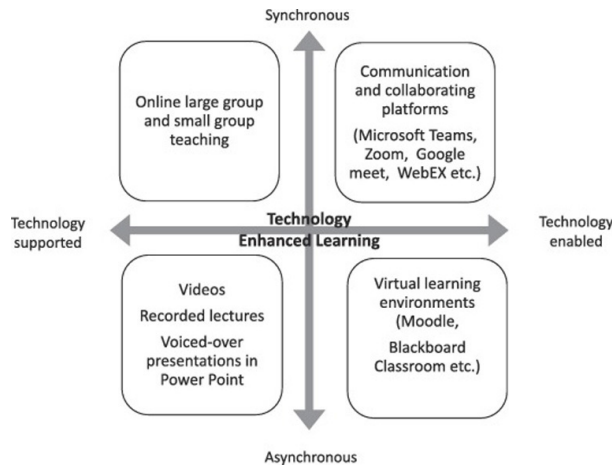### 2.3   Digital platforms for online teaching

Fig. 2. Four quadrants of online teaching and learning (Azlan et al., 2020)

Figure 2 above shows digital platforms frequently used for online teaching in four quadrants of online teaching and learning. Many digital platforms for online teaching and learning are available in the market, and each platform has different needs and functions for educators. When considering a particular platform for teaching and learning, several things should be considered, such as internet accessibility for both students and teachers, types of online class activities, lessons and tasks, and assessments. This determines the mode of delivery for online classes teachers plan to execute. There are two types of online modes: synchronous and asynchronous [3]. For instance, the teacher can have live online lessons with students in synchronous modes, using Microsoft Teams or WebEx. The teacher can also arrange live online lessons to be recorded because some students may not be able to attend classes in real-time. The recorded lecture can be uploaded to a learning management system for asynchronous learning. This also means that students can access and watch it when they have internet access.

It is convenient that universities frequently provide teaching staff with digital platforms and learning management systems [3]. However, these technologies require educators' technology pedagogy knowledge [18, 19] and good internet access. Often, educators have had to switch between different digital platforms to ensure that students with problematic internet access or speed can join and access online classes [7, 10]. Additionally, educators face problems designing and conducting lessons in such inconvenient circumstances. Hence, the following section describes three digital online teaching and learning platforms that can be used, even when students face problematic internet accessibility. Online web meeting platforms, Learning Management Systems (LMS), and cross-platform messaging apps are the three platforms.

Online web meeting platforms. Online Web Meeting platforms involve logging in online from a computer or a smartphone to access software such as Zoom, Google Meet, Microsoft Team, or Skype. Online meetings using the Web Meeting platforms pose two problems. First, communication via a web-based meeting platform, generally

arranged ahead of time, is more passive than face-to-face contact on campus, which is more spontaneous, dynamic, and engaging [21]. Secondly, problematic internet connection, insufficient technological equipment, or a variety of distractions in the online environments can all hinder communication [21, 27]. Nonetheless, Topacio [27] investigated the benefits and disadvantages of online-based instruction in ESL classrooms and found that despite problematic internet, students still prefer online, face-to-face classroom conversation for instruction. This means that teachers should frequently use Online Web Meeting Platforms, record their live online lessons, and upload those lessons on Learning Management Systems for students to access when they have stable internet.

Learning management systems. Learning Management Systems (LMS) are web-based software platforms that enable interactive online learning and automate the administration, organising, delivery, and reporting of educational content and learner results. [28]. Ifenthaler [20] estimates that more than 200 LMS systems were already available in 2012. They can either be sole proprietary or open sources such as Moodle, MOOC or Google Classroom [28]. LMS provides a platform for teachers to manage the course in a structured manner to deliver teaching content and coursework; and for students to submit assignments. It also allows students to interact with teachers and each other without the barriers of distance and time [29]. Simply put, it is a platform that allows for a systematic method for asynchronous teaching. LMS systems have been widely implemented in Malaysian universities for the past decade using blended learning approaches [3]. A popular LMS frequently used by educators is Google Classroom.

Cross-platform messaging applications. The utilisation of Cross-Platform Messaging Applications made its mark since the appearance of its invention in the digital realm in 2007. Motiwalla [22] suggests that this platform should have been used widely in language learning during its early days. Multiple studies also emphasised the efficacy of cross-platform instant messaging applications (such as WhatsApp and Telegram) in language learning. Research on mobile apps, including WhatsApp [15, 17] and Telegram [2], points to the usefulness of these apps for language learning as they allow learners to be independent in their learning. Cross-platform instant messaging applications are also practical for online teaching as it requires minimal digital skills and is commonly used daily by both learners and educators. It also allows the distribution of printed and digital audio and video materials with its attachment functions. These apps are also most convenient for teachers and learners with problematic internet accessibility.

In summary, Online Web Meeting Platforms (i.e., Zoom, Microsoft Team, WebEx, Google Meet), Learning Management Systems (i.e., Google Classroom, MOOC, Open Learning, Moodle), and Cross-platform instant messaging applications (i.e., WhatsApp, Skype, Telegram) are the three digital platforms that are frequently used for effective online teaching.

3 Methodology

A pilot study was carried out to investigate university English language teachers' use of digital platforms. Data was collected using an online survey questionnaire with

multiple-choice and open-ended questions. To measure its reliability, subject-matter experts were consulted, and necessary corrections were made before distributing it to participants. The study recruited university English language teachers teaching English proficiency courses such as EAP, ESP and EOP courses at a Malaysian public university. The questionnaire was piloted on these in-service teacher volunteers.

3.1 Participants

The participants in this study are 19 in-service university English language teachers at a Malaysian public university. They were selected based on convenience sampling and years of teaching experience. The ESL teachers had had approximately 5 to 25 years of teaching practice and at least one year of experience using digital platforms in their teaching before the pilot study was conducted. There were 14 females and five male university English language teachers, ages 23 to 59.

University English language teachers in Malaysia teach local and international undergraduates English proficiency courses. The ESL university teachers teach general English proficiency courses such as Academic English, English for Specific Purposes, and Professional English. The teachers teach learners from twelve faculties, with varying language abilities ranging from beginner to advanced levels.

3.2 Instrument

The survey questionnaire 'Developing English Teachers Digital Skills for Online Teaching' consists of three main sections: (1) Challenges in Online Teaching; (2) Digital Platforms for Teaching English Online; and (3) Digital Skills for Teaching English Online. The questions included multiple-choice and open-ended questions on digital platforms used for teaching English online and teachers' experiences using various digital platforms in a classroom setting when teaching specific language skills (i.e., reading, listening, speaking, and writing). This paper presents only findings from the second section of the questionnaire to keep to the scope of this paper.

3.3 Data collection and analysis

The study used a survey design focusing on obtaining answers to a series of carefully planned questions based on a comprehensive literature review. University English language teachers were invited to participate in the online questionnaire because they were not on campus at the time of study due to the nationwide lockdown. The online questionnaire consists of 23 items. It was used to elicit teachers' feedback and insights on their experiences using digital platforms for teaching English online.

The questionnaire was completed by 19 university English language teachers. Data were analysed through cross-tabulation analysis using frequency count and percentage distribution, and short open-ended responses were coded for themes. Participants were also asked to report on the frequently used digital platforms for teaching English online and describe the challenges they faced in using digital platforms for online lessons when some learners met problematic internet accessibility.

4   Results

This section describes results derived from the responses given by university English language teachers in the online questionnaire and answers the research questions:

1. What digital platforms do English language teachers use to teach online? Why?
2. How do university English language teachers use those digital platforms for teaching online?

4.1   Digital platforms for teaching online

Digital platforms used by University English language teachers to teach online at a Malaysian university presented in Figure 3 are (1) Online Web Meeting Platforms (i.e., Zoom, Microsoft Team, Google Meet), (2) Learning Management Systems (i.e., Google Classroom, MOOC, Open Learning, Moodle) and (3) Cross-platform instant messaging applications (i.e., WhatsApp, Skype, Telegram). Figure 3 shows a bar chart illustrating the top three digital platforms university English language teachers use to teach online. The three preferred digital platforms are (1) Web-based meeting platforms which were used by 89.4% of teachers, followed by (2) Learning Management Systems, which were used by 78.9% of teachers, and (3) Cross-Platform Messaging apps that were used by 73.7% of teachers. YouTube (36.8%), e-mail (26.3%), and collaborative tools (21.05%) like Padlet or Google Docs were used sparingly.
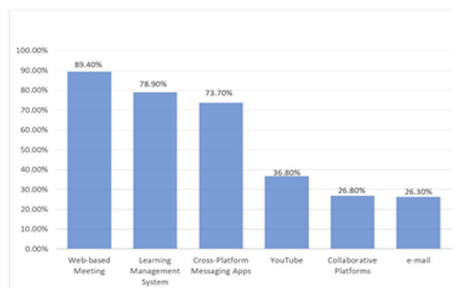

Fig. 3. Digital platforms used for online teaching

Frequency counts and distribution of responses to Digital Platform Use for Teaching English Online are shown in Table 1 below. The data indicates that some university English teachers only used one digital platform to deliver online lessons. Seventeen out of nineteen teachers preferred to use only Web-based Meeting Platforms (89.4%), such as Google Meet, to meet students live online. Fifteen of nineteen teachers used only learning management systems (78.9%), such as Google Classroom, to deliver lessons asynchronously. In comparison, fourteen out of nineteen teachers (73.7%) only used Cross Messaging Platform apps like WhatsApp to assign language tasks. Only a minority of university language teachers preferred to use YouTube videos (36.8%), email (26.3%), and collaborative tools like Padlet (21.05%) for online language instruction.

Table 1. Percentage and frequency count for digital platform use for teaching English online

Digital Platform	Used	Not Used	Total
Web-based Meeting Platform	89.4%	10.6%	100
	17	2	19
Learning Management System	78.9%	21.1%	100
	15	4	19
Cross-Platform Messaging Application	73.7%	26.3%	100
	14	5	19
YouTube	36.8%	63.1%	100
	7	12	9
e-mail	26.3%	73.7%	100
	5	14	9
Collaborative Platform	21.05%	78.95%	100
	4	15	9

Figure 4 below shows a bar graph of university English language teachers' challenges in online teaching. Unsurprisingly, the biggest challenge was students' technology or internet access, with 73.7% of teachers facing this issue. This is followed by problems of official systems not working at 68.4%. Again, the problem is with technical issues. The third major challenge is the lack of proper training (52.6%) and extra preparation time for online classes (52.6%). It can be implied here that university teachers need extra preparation time because they must learn how to use different digital platforms, and most likely, adjust and adapt to digital platforms that students can access when facing problematic internet access.
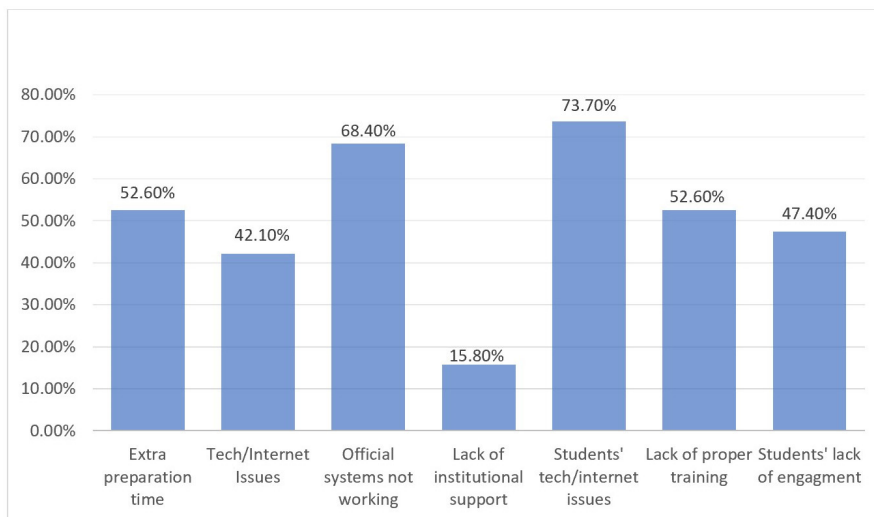

Fig. 4. Teachers' challenges in online teaching

University English language teachers queried students about their internet access. Depending on students' internet situation, they chose to use only Cross Messaging Platforms or Learning Management Systems to deliver lessons asynchronously, which will be discussed in the following section. Web-based meeting platforms were

used occasionally, and lessons were recorded for students to watch asynchronously at students' convenience.

4.2 How digital platforms are used for teaching English online

Web-based meeting platforms for synchronous language lessons. The findings from the open-ended responses below are in alignment with the multiple-choice item findings above. Web-based meeting platforms were used by 89.4% of university English language teachers for online, face-to-face meetings, which is known as synchronous lessons. English language classes at the undergraduate level are scheduled once a week, and it is interesting to note that Teacher 15 meets students on Web meeting platforms every week. Meanwhile, Teacher 6 meets students every fortnight using the flipped classroom approach.

> *Google meet-Face to face class sessions – Teacher 2*
> *Flipped class – as synchronous – Teacher 6*
> *I meet students once a week on Google Meet-Teacher 15*

As discussed in the literature review section, language learners prefer online face-to-face, synchronous lessons [25], so we suggest that university language teachers meet undergraduate students online weekly. According to Tapacio [27], online face-to-face, synchronous language lessons must be maximised for student participation. Activities recommended include speaking tasks in breakout rooms and class discussions using the comment section and the raise-hand function. This is to ensure that learners communicate orally by giving opinions. Furthermore, language tasks that require collaborative work using annotation are also encouraged in live classes [25]. Since Web-based Meeting Platforms like Google Meet is an essential digital platforms for language classes, university English language teachers need to develop digital skills in using this platform and familiarise themselves with the functions such as the raise-hand button, breakout rooms, and annotation to carry out effective synchronous language lessons.

Learning management system for asynchronous task-based language learning. Asynchronous learning is a broad term that refers to different types of education, training, and learning that do not occur at the same time or place. The term is widely given to many forms of digital and online learning. Language learners learn from teachings not presented in person or in real-time, such as pre-recorded video classes or game-based learning tasks that students complete independently. University English language teachers (78.9%) primarily used the learning management system (LMS) provided by the university and another LMS – Google Classroom. These results echo Perifanou's findings [23], where teachers used Learning Management Systems to assign language tasks. Responses show that LMS is used for task-based language learning in asynchronous language classes, as seen in the responses below.

> *I use Google Classroom to give handouts or notes, weekly tasks, and assignments – Teacher 2*
> *… give extra notes using UKMFolio – Teacher 3*

UKMFolio to upload reading materials – Teacher 4
... giving out class tasks and instructions a week before class so that students know what they need to do once they arrive in class – Teacher 6
... assign reading comprehension task – Teacher 11

A challenge for teachers is that tasks and task-based methodology do not work the same way online as in traditional, face-to-face classrooms [2, 22]. Language courses cannot simply be a translation of equivalent face-to-face courses—Baralt and Gomez [22] outline several characteristics and differences between online and physical face-to-face classes. First, tasks that work well in person do not always work well online. Second, learners may feel more self-conscious in video-based interaction, so tasks are easier to do independently or in small groups. Third, teachers must successfully employ additional online platforms or apps to scaffold learners' interaction, attention, and knowledge construction. Therefore, in giving tasks, teachers are encouraged to scaffold students and allow for meaningful language tasks to be completed by learners. For instance, teachers could assign group work and drop into students' online discussions from time to time.

Cross-platform messaging application for interactions and class discussions. Some undergraduate students could not respond or participate in Web-based Meeting Platform or online, face-to-face class interactions on Teams or Google Classroom due to problematic internet accessibility. This was one of the significant challenges university English language teachers experienced in online language lessons. Teacher 9 suggested, *"Meet students with internet issue at different or convenient time for them"*. In any case, two-thirds of the university teachers (73.7%) resolved this issue by interacting on WhatsApp or Telegram to ensure that all students were able to participate in class discussions, as seen in the responses below:

Messaging as an interaction and discussion tool – Teacher 1
I use WhatsApp to interact with students and to have written discussions – Teacher 2
I use WhatsApp a lot to share materials with students – Teacher 3
I used WhatsApp to conduct discussions and forums. Students are required to discuss using appropriate language, have turn takings, provide opinions on topic – Teacher 4
I used WhatsApp to share visuals and brief notes that can work as a stimulus to have a discussion with my students – Teacher 6
I use WhatsApp for document sharing and discussion – Teacher 13
Students will sent videos for me to comment on. They will then improve based on comments made – Teacher 16
I mainly use Telegram to share links, have polls, and have a discussion with students – Teacher 18
I use WhatsApp/UKMFolio to share Youtube videos for students to react or have group discussion – Teacher 19

Kartal's [17] findings support the practice of using WhatsApp for online language classes. Kartal explored how WhatsApp's Cross-Platform Messaging app was used for foreign and second language learning classes by examining empirical studies on

WhatsApp and language learning. The effectiveness of WhatsApp on language acquisition was investigated through a systematic review. Key terms, sample sizes, participants, data sets, duration, and language learning benefits were all examined. The findings reveal that WhatsApp is used for various language teaching and learning purposes. According to the review, WhatsApp can help learners enhance their four language skills (reading, listening, writing, and speaking) and integrate language abilities and vocabulary. WhatsApp was also proven to promote motivation and language attitudes, develop learner autonomy, and increase interaction.

This current study investigated university teachers' experiences using digital online teaching and learning platforms. It can be established that most teachers are comfortable using Whatsapp to disseminate video lessons, have discussions, and share worksheets with students. There are two implications of this practice of using Whatsapp. First, teachers might need more training in using Web-based meeting platforms, such as using advanced functions like break-out rooms or skills in recording and uploading lessons. Secondly, teachers may already know how to use advanced functions but due to teachers' challenges with students' problematic internet access, using Whatsapp is one way to ensure the inclusion of all students so that no students are left behind in online teaching and learning. In any case, teachers in this study actively use Web-based meeting platforms such as Zoom, Teams and Google Meet for live teaching and learning sessions. Teachers also actively used LMS such as Google Classroom, Moodle and Open Learning for task-based language lessons and assignments.

5 Discussion

The full magnitude of the Covid-19 outbreak and the impact of phased lockdowns have completely transformed the entire landscape of education at all levels, ranging from how online teaching is carried out to the drastic administration of academic institutions. Despite the challenges and setbacks amid the global pandemic, rapid adaptation of online teaching and learning activities and heavy dependence on internet-mediated platforms were seen as the only viable option to resume teaching and learning. Although the effort made by teaching staff, students, and administration of academic institutions in continuing the teaching and learning is commendable, several issues need to be addressed, particularly regarding teacher training and readiness, internet accessibility, instructional methods, and strategies.

The result of the study calls for more hands-on workshops to equip teachers with knowledge of digital platforms and how to use them for pedagogical purposes. Teaching online requires a careful and organised plan of action from the management. Based on the findings, teachers had the initiative to put digital platforms in place, spearheading the pedagogy for other teachers who are still adjusting to the shift in pandemic pedagogy. Some still find it difficult to adjust, resorting to the traditional way of teaching using the same materials and teaching approaches designed for face-to-face teaching. Online teaching during the global pandemic is somewhat a blessing in disguise. There is a surge of online platforms and applications freely available online, giving a broader choice to educators to choose based on context-specific circumstances.

Using digital platforms for pedagogical purposes requires knowledge and experience. Swabey and Warwick [25] recommend that English language teachers use four types of digital platforms for effective English language teaching online. This includes (1) web-based meeting platforms like MS Teams or Google Meet; (2) communicative platforms such as WhatsApp or Telegram, (3) interactive platforms like Quizizz, Kahoot, or Wonderwall; and (4) collaborative platforms like Padlet, Flipgrid or Google Docs. By integrating different online-mediated platforms and applications, learners can benefit from an array of learning experiences. Teachers can also try new teaching approaches and learn to use online platforms to make learning more meaningful, engaging, and effective. However, using too many digital platforms may be overwhelming for teachers. Teachers have to juggle several online-mediated platforms to accommodate students' needs and convenience, and they are also expected to quickly learn how to use different digital platforms for other purposes such as synchronous lessons, grading, feedback, and assessment.

Looking forward, teaching and learning at Malaysian universities will unlikely return to the normalcy of the pre-pandemic era of face-to-face classrooms. Elements of online teaching and learning will still be present in flipped, blended or hybrid forms. Henceforth, teachers need extensive pedagogical support in online teaching and learning. Anderson [1] argues that researchers need to identify the pedagogical value in online teaching and learning context for effective and *subject-oriented* successful examples of experienced teachers. Anderson [1] further asserts that higher education teachers should interact regularly and build relationships that enable them to learn from each other. Thus, future studies should focus on understanding how language teachers conduct online teaching and learning in specific contexts and how some teachers manage to overcome challenges commonly experienced by others. This could provide valuable insights into improving the quality of online teaching and learning at universities.

6 Conclusion

This paper presented how teachers use digital platforms to quickly adapt to online teaching and learning, given the current circumstances of some students' problematic internet access. Online web meeting platforms, cross-platform instant messaging apps, and virtual learning management systems (LMS) are the top three digital platforms university English language teachers use. These platforms were sufficient for teaching online to students with problematic internet accessibility and can be optimised for online teaching and learning. Online web meeting language lessons were recorded, and students with problematic internet accessibility could access the lessons when they could access the internet. Learning Management Systems were primarily used for task-based language instruction, and cross-platform messaging apps were used for classroom-based language discussions. University language teachers in nations with internet accessibility issues could similarly use these digital platforms in their teaching and learning.

The Covid-19 pandemic has changed teaching from traditional face-to-face classrooms to fully online delivery. Although it poses many challenging learning curves and technological complexities, university teachers seem to have broadened their teaching

repertoire and gained new knowledge and mastery in using digital platforms in their online instruction.

7　Acknowledgment

8　References

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9 Authors

Maryam Mohamed Amin, The National University of Malaysia (UKM), Bangi, Malaysia.

Norazha Paiman, The National University of Malaysia (UKM), Bangi, Malaysia.