Revisiting technological tools used in EFL-speaking classes during the COVID-19 pandemic: What are the implications for the post-pandemic?

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The COVID-19 pandemic forced a rapid shift from traditional teaching to online settings. This study explores the technological tools employed by university EFL-speaking teachers during this transition, investigating their continued relevance post-pandemic. With a focus on the experiences of seven university EFL-speaking teachers, this study probes the challenges they encountered, their attitudes toward the challenges, and the technological tools they favored to sustain effective instruction. The participants, chosen using purposive sampling and engaged in online interviews, provided rich insights that were thematically analyzed using the Technology Acceptance Model (TAM). The findings revealed that the teachers’ perceptions of Perceived Ease of Use (PEoU), Perceived Usefulness (PU), and the challenges they encountered were pivotal in shaping their attitudes...
towards the employed technological tools. Several challenges emerged, including students’ limited participation, assessing and providing feedback, accessing resources, and the teachers’ technology familiarity. Among these complexities, Google Meet and e-learning platforms became preferred tools. The teachers’ rationale for these choices encompassed bridging the gaps created by the virtual environment, fostering meaningful tasks, and promoting communication efficiency. Their strategic alignment reflected the teachers’ intent to address the challenges encountered during online teaching, and to continue these practices in the post-pandemic.

**Keywords:** COVID-19 pandemic, EFL-speaking class, teachers’ strategy, technological tools

**Introduction**

The COVID-19 pandemic has profoundly impacted education systems worldwide, and it has spurred a global shift to remote and online learning, enforcing the implementation of online teaching methods for speaking instruction based on Information and Communication Technology (ICT). The abrupt transition has posed substantial challenges for English as a Foreign Language (EFL)-speaking classes, which are traditionally reliant on face-to-face interaction and communication. As teachers adapted to this new reality, they have navigated a variety of strategies, tools, and approaches to facilitate effective EFL-speaking instruction in a virtual context and help students mitigate their speaking loss caused by limited in-person interaction in the online classroom (Yarrow et al., 2020).

Subsequently, as schools reopen in many countries, educational institutions have a vital task of adapting to this transition over a limited timeframe. Schools and universities need to swiftly adjust to the evolving educational landscape. Advocates such as Chtourou and Zouari (2020) emphasized the importance of proactive planning and resource utilization to enhance productivity and instructional effectiveness in the post-pandemic era. Concurrently, for the context of EFL-speaking classes after the COVID-19 pandemic, Harsch et al. (2021) envision a paradigm shift in EFL-speaking instruction, with digital contexts emerging as the new norm for language learning. They claimed learners had adequate time to prepare for the various digital settings without having to cope with the consequences of physical distancing during the outbreak. They believed that speaking in digital contexts will be the new adaptive mode of teaching and learning.

Moving on to the exploration of the future challenges and strategies, whether or not teaching and learning return to their pre-pandemic era, or will the implementation of online learning or distance learning continue? Amidst these transformative shifts, educators grappled with uncertainties about the future of teaching and learning. Gillard (2021) underscored the necessity of integrating technological tools into education systems, including EFL classrooms context, to ensure future resilience, as it was reciprocated with the proposals by
Mukminin et al., (2022); Thumvichit, (2021). Therefore, from such growing interest we intend to investigate into how speaking instructors have modified their teaching approaches to leverage technology during the epidemic because we do believe that incorporating ICT into EFL instruction. This investigation is the avenue for optimizing pedagogical approaches and addressing pandemic challenges by uncovering innovative practices, pedagogical approaches and technology tools utilized by instructors. Finally, this inquiry aims to provide valuable insights that can inform EFL-speaking instruction beyond the pandemic era, ultimately it is expected to optimize pedagogical approaches and address the challenges posed by future disruptions.

Literature review

By delving into two important aspects of contemporary educational discourse, we projected the literature review to offer insights into the theoretical underpinnings and practical implications of technology adoption and utilization in online EFL classrooms and, additionally, to set the groundwork for a comprehensive understanding of the subsequent discourse. The review uses TAM to examine how educators’ views of technology impact its adoption, highlighting the role of perceived accessibility in usage and practicality. On the other side, TML is being investigated as a framework for fostering relationships, relevant learning activities, and successful communication in online EFL classroom contexts. Finally, drawing on a range of studies it highlights the pivotal role perceived and executed by EFL-speaking teachers.

Technology Acceptance Model (TAM)

Integrating technology into online EFL classrooms has become vital due to the pandemic. Teachers’ perceptions influence its adoption and must embrace continuous learning and acknowledge technology’s benefits (Adedoyin & Soykan, 2020). If users find technology unproductive or challenging, its success may be hindered (Quansah & Essiam, 2021). To measure students or teachers’ acceptance to utilize technological tools utilized in online classrooms amidst the pandemic, some researchers used the Technology Acceptance Model (TAM) to elucidate users’ intentions to adopt information systems (see Al-Maroof et al., 2020; Han & Sa, 2022; Mangundu, 2022; Navarro et al., 2021; Quansah & Essiam, 2021; Szymkowiak & Jeganathan, 2022; Vladova et al., 2021).

Drawing from earlier investigations into the integration of novel technologies during the COVID-19 pandemic, it is apparent that TAM is more flexible to be adapted for various scenarios (Al-Maroof et al., 2020; Davis, 1986; Joia & Lorenzo, 2021), including the pandemic’s context. TAM’s applicability extends to diverse forms of information technology acceptance (Han & Sa, 2022). Thus, TAM offers a concise and valuable theoretical framework to examine how individuals’ perceptions of the usefulness and ease of use of a new technology impact its acceptance. It incorporates the concepts of Perceived Ease of Use (PEoU) and Perceived usefulness (PU) to elucidate users’ intentions to adopt
information systems (Davis, 1986). Davis (1986) defines PEoU as the extent to which teachers perceive that utilizing the technology is not difficult or too complicated, while PU is defined as the degree to which they presume that integrating a particular technology could be advantageous and aligns with their need and goals.

Teachers’ perceptions significantly affect their technology adoption behavior (Al-Maroo et al., 2020). When a technological tool is perceived as easy to navigate and functional, positive attitudes emerge (Mangundu, 2022), reflecting comfort and mastery. Similarly, recognizing technology’s alignment with needs and goals fosters positive attitudes (Quansah & Essiam, 2021), leading to greater adoption intention. The interplay of ease and usefulness shapes attitudes and intentions, highlighting these perceptions’ pivotal role in technology acceptance.

**Technology-Mediated Learning**

Technology-Mediated Learning (TML) refers to an educational setting where students engage with educational content, instructors, and peers through advanced ICT (Alavi & Leidner, 2001; Russell & Murphy-Judy, 2020). As students often faced disconnection due to psychological distance amid the COVID-19 pandemic which led to loneliness and isolation (Arslan, 2021), incorporating TML in online learning could foster connections among individuals (Alemany-Arrebola et al., 2020). Hence, educators should use appropriate virtual tools to foster social connections and intimacy (Lomicka, 2020). For instance, some researchers have adopted various applications to facilitate virtual meetings, including Google Hangouts, Google Meet, GoToMeeting, Microsoft Teams, Skype, and Zoom Meetings (Kristóf, 2020; Nadire & Daniel, 2021) to establish a sense of connection among participants.

Technology should also offer students meaningful tasks (Joia & Lorenzo, 2021), fostering active learning and self-directed learning with diverse materials (Laksana, 2021). Activities can be individual or group-based, such as discussions, projects, or video creation (Alzamil, 2021; Bitch & Lian, 2021; Kusuma et al., 2021), cooperative learning like think-pair-share and numbered heads together (Namaziandost et al., 2020), or debates on current topics (Al-Jarf, 2021). Researchers have embraced various platforms to enhance teaching, including Kahoot and Vicaroo (Al-Jarf, 2021) for engagement, Quizlet (Ipek, 2021) for digital flashcards, and FlipGrid (Budiarta & Santos, 2020; Ipek, 2021) for discussions and video tasks. These platforms exemplify the evolving landscape of technology-integrated learning, enriching student engagement and learning outcomes.

In addition to establishing connections and providing meaningful tasks, effective communication using technology is crucial during online learning. Saleem et al. (2022) recommend that educators offer concise and clear explanations to prevent diverse interpretations among students. Recording lessons and supplying supplementary materials can enhance learning experiences (Mishra et al., 2020). Furthermore, teachers should consistently offer feedback
on student progress and assignments (Frymier & Houser, 2000), provide opportunities for questions, and allow flexible assignment submission deadlines (Walker & Graham, 2021). For instance, Hapsari et al. (2022) and Pratiwi et al. (2021) employed WhatsApp to create concise and clear explanations for tasks, ensuring consistent understanding among students. Similarly, Budiarta and Santoso (2020) and Ipek (2021) utilized FlipGrid to provide detailed task descriptions and instructions, promoting task comprehension and execution. Additionally, Kusuma et al. (2021) utilized YouTube videos to enhance the explanation of teaching materials.

While the existing literature provides valuable insights into the adoption of technology in online learning, there is a notable research gap concerning the specific context of teachers’ perceptions of the ease of use (PEoU) and perceived usefulness (PU) of the technology they employed for teaching online speaking classrooms amidst the COVID-19 pandemic. While the literature acknowledges the significance of PEoU and PU in influencing technology acceptance (Al-Maroof et al., 2020; Quansah & Essiam, 2021), there is a lack of comprehensive exploration into how teachers’ perceptions of the PEoU and PU of the technology influence their ability to foster connections among individuals, offer meaningful tasks, and facilitate effective communication in the context of online learning during the COVID-19 pandemic. By comprehensively addressing the tools, strategies, and preferences related to technology-mediated EFL-speaking instruction, this study aims to empower educators and institutions to harness the full potential of technology, fostering effective communication skills even in the face of adversity. Therefore, this study seeks to shed light on the following research questions:

1. To what extent was the use of specific technological tools effective for EFL-speaking classes during the COVID-19 pandemic?
2. How did the implementation of technological tools in EFL-speaking classes during the COVID-19 pandemic affect student engagement and learning outcomes?
3. Based on the effectiveness of technological tools used for EFL speaking during the COVID-19 pandemic, which tools hold the most promise for continued use in a post-pandemic setting, considering factors like student preference and learning outcomes?

**Methods**

This study employed a descriptive qualitative approach to examine the use of technological tools in EFL-speaking classes amidst the COVID-19 pandemic. It assessed the efficacy of tools chosen by teachers to adapt to online EFL-speaking learning milieu. Furthermore, it delved into the teachers’ perspectives, particularly on student engagement and performance while using the tools. Additionally, it explored teachers’ experiences, reflecting on their student engagement and outcomes during the class. Lastly, it aimed to identify sustainable tools for future EFL-speaking instruction, considering factors like student preference, to offer integration recommendations beyond the pandemic.
**Participants**

This study involved seven participants: three EFL teachers who teach in the senior high school and four EFL teachers who teach at the university level. All of the teachers teach in city areas (Malang, Sidoarjo, and Sumenep) in East Java, a province that is considered one of the provinces with good quality of education in Indonesia. Prior to the interview, we described the research objectives and potential risks that the participants would encounter after testifying their voices. Besides, we kept the participants’ names confidential to protect their real identities. In short, they were willing to participate in a series of interviews without being forced by any parties. The demographic information about the participants is shown in Table 1.

**Table 1. Demographic information of the participants**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Educational qualification</th>
<th>Teaching experience (Years)</th>
<th>Educational institutions</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Male</td>
<td>42</td>
<td>S2</td>
<td>14</td>
<td>Vocational school</td>
<td>Malang</td>
</tr>
<tr>
<td>P2</td>
<td>Male</td>
<td>39</td>
<td>S2</td>
<td>7</td>
<td>University</td>
<td>Sidoarjo</td>
</tr>
<tr>
<td>P3</td>
<td>Female</td>
<td>36</td>
<td>S2</td>
<td>7</td>
<td>University</td>
<td>Sidoarjo</td>
</tr>
<tr>
<td>P4</td>
<td>Female</td>
<td>41</td>
<td>S1</td>
<td>14</td>
<td>Senior high school</td>
<td>Sumenep</td>
</tr>
<tr>
<td>P5</td>
<td>Male</td>
<td>32</td>
<td>S2</td>
<td>7</td>
<td>Senior high school</td>
<td>Sumenep</td>
</tr>
<tr>
<td>P6</td>
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<td>40</td>
<td>S2</td>
<td>10</td>
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<td>Malang</td>
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<td>Female</td>
<td>43</td>
<td>S2</td>
<td>15</td>
<td>University</td>
<td>Malang</td>
</tr>
</tbody>
</table>

**Data collection**

To answer the aforementioned research questions, we conducted semi-informal conversational interviews, which Turner (2010) identified as a natural interaction between the researcher(s) and the participants. During the interview, we used a question guideline to elicit a range of insights and perspectives, allowing for the exploration of various aspects related to the research questions. The interviews sessions were conducted towards the end of the COVID-19 pandemic in April 2022 and were carried out separately through an in-person interview, video calls using WhatsApp, and video conferencing using the Zoom Meeting application due to distance constraint. Each interview session lasted in 15-30 minutes for one participant and was recorded using a smart device namely a mobile phone or laptop. Then, the recorded answers were transcribed accordingly to identify themes and select the most appropriate excerpts for each research question.

We adapted Creswell and Poth’s (2016) procedures in conducting interviews which have eight steps: 1) selecting the targeted participants, 2) deciding the type of interview and relevant information to answer the research questions,
3) preparing the devices to be used in the interview (e.g., smartphone, laptop, video conferencing tools), 4) making sure that the devices worked well, 5) developing the interview guideline including the questions that we intended to address, 6) choosing the best place to interview with no or little destruction, 7) preparing the letter of consent for participants indicating that their participation was not under any coercion, and 8) conducting interview session by asking questions elaborated based on participants’ responses. The research participants were carefully identified and selected through a purposive sampling strategy. This approach involved deliberately seeking out individuals who possessed relevant experience and expertise in the field of interest, ensuring that they were willing and available to take part in the study. This targeted selection process aimed to assemble a group of participants who could offer valuable insights aligned with the research objectives.

Data analysis

The data obtained from the interviews were analyzed using thematic analysis, which has been expected to identify, analyze, and report themes and complex data collection (Braun & Clarke, 2006). The themes describe something crucial about the data in respect to the research questions and showcase the patterned response to what is being told, not the structure of the story. Having been inspired by Weston et al. (2001), we analyzed the data in five steps: 1) listening to the recorded interview data repeatedly, 2) transcribing the data into written form, 3) listing the themes and selecting the potential data or excerpts for each of the questions addressed in the interview, 4) interpreting the excerpts in the form of complete sentence conveying the participants’ opinion on the questions, and 5) confirming the final data to the participants to ensure that data were interpreted correctly based on the participants’ true voice. In this step, the participants were able to provide feedback or justify any information being transcribed incorrectly.

In establishing agreement on the final themes amidst varying interpretations of the data, we discussed and meticulously examined the collected information. Through iterative analysis, we delved into the diverse viewpoints presented. Through collaborative and systematic evaluation of the evidence in light of research goals, we achieved consensus. This collaborative and systematic approach ensured that the ultimate set of main themes accurately reflected the collective insights derived from the data. Moreover, in addressing potential disagreements among participants, we prioritized open communication. When discrepancies arose or participants held differing opinions, we engaged in constructive dialogue to understand and resolve concerns. Any dissenting viewpoints were respectfully acknowledged, and collaborative discussions were initiated to reconcile discrepancies between recorded text and intended meanings.
Findings

The findings from the study suggest that teachers’ perspectives regarding the technological tools were influenced by their perceptions of Perceived Ease of Use (PEoU), Perceived Usefulness (PU) of technological tools and their efficacy in fostering connections, enabling meaningful tasks, and facilitating communication within the online EFL-speaking classroom, and the challenges they confronted during their teaching endeavors (see Appendix A). Among the challenges identified, three primary themes emerged from the participants’ experiences: the extent of students’ active involvement and engagement in the virtual classroom, the effective implementation of assessments and the provision of constructive feedback, and the teachers’ own level of familiarity and comfort with the technological tools employed.

For instance, P1 identified the difficulty of sustaining students’ enthusiasm for speaking activities in the absence of peers and the traditional classroom environment. To address this, P1 adopted a strategy where students engaged in dialogues and practiced them with peers through video calls on platforms like WhatsApp and Telegram. The outcomes of these exercises are shared on a Telegram Group. Therefore, P1 favored Telegram, highlighting its advantageous features such as boundless cloud storage and space-saving capabilities for smartphones. The teacher’s favorable Perceived Ease of Use (PEoU) becomes apparent as he recognizes the user-friendly nature of Telegram for communication purposes.

P2’s challenges in assessing online speaking skills prompted a teaching shift, seen in their preference for Google Meet and e-learning. Google Meet was favored for its direct video transmission, aiding remote assessment. This choice emphasized Google Meet’s ease of use and usefulness, reflecting P2’s positive experience. P2’s post-pandemic plan to use e-learning aimed to address guidance challenges, with voice recordings fitting meaningful tasks, strengthening the role of technology. This alignment showed P2’s commitment to effective online teaching despite remote assessment constraints. P3 responded to the challenge of limited in-person interactions by favoring Google Meet and e-learning, recognizing the significance of informal conversations for rapport building. This choice was influenced by P3’s emphasis on independent learning, as evidenced by the provision of e-learning resources. Google Meet’s affordability and real-time video interactions were chosen to mirror face-to-face dialogues. P3 also expanded the pedagogical approach by urging students to utilize social media platforms such as YouTube, Instagram, and TikTok to enhance their English-speaking abilities.

Another major challenge encountered in online speaking classes was internet connectivity issues. P4’s preference for WhatsApp illustrates PEoU and PU, chosen for its feasibility and accessibility amidst varying internet connections. The use of voice notes aligns with its ease of use, promoting efficient communication. For the post-pandemic, the intent to continue with WhatsApp suggests its perceived usefulness in maintaining effective communication. Additionally, P5’s response to challenges led to innovative solutions. In the absence of institutional support for online platforms like learning management system (LMS),
P5 devised a personalized LMS for their class. This proactive approach exemplifies creativity driven by challenges and a commitment to effective online teaching regardless of the obstacles.

In addition, amid the rapid transition to online teaching, P6 swiftly adapted to unfamiliar software through institution-provided training. P6’s use of FlipGrid and Zoom Meeting underscores PEoU’s significance in teacher-student interactions, employing user-friendly tools for meaningful tasks. The planned integration of Google Classroom post-pandemic and P7’s adoption of Zoom Meeting and FlipGrid echo the role of PEoU. FlipGrid’s preference, for assignments and feedback, highlights its utility in enhancing task relevance and communication. These instances collectively highlight PEoU and perceived usefulness in shaping tech preferences to address online teaching challenges.

Discussion

Technological tools used to teach EFL speaking during the COVID-19 pandemic

The findings of the study shed light on the technological tools utilized for teaching EFL speaking during the COVID-19 pandemic. The interview results reveal that a predominant approach adopted by most participants involved leveraging various video conferencing platforms, including, Google Meet, Telegram, and Zoom Meeting. These choices were guided by individual preferences. The rationale behind this choice was to emulate an offline classroom experience in an online setting and to foster direct interaction between teachers and students. This approach was believed to enhance a sense of connectedness and facilitate effective communication. This resonates with the notion that technology can play a pivotal role in creating meaningful connections through real-time, interactive communication between educators and learners.

Among the teachers, Google Meet and Zoom Meeting emerged as the most widely favored video conferencing tools. As Nadire and Daniel (2021) highlighted in their research, these particular video conferencing tools gained substantial popularity among users. This was attributed to their ability to effectively accommodate larger class sizes and offer extended free usage. In a similar vein, Telegram presented itself as another viable option. Teachers employed Telegram to facilitate video conferences with students, encourage dialog practice through video calls among peers, and facilitate work submissions via Telegram groups.

Unfortunately, the functionality of video conferencing tools is hindered by the necessity for users to maintain a reliable internet connection. Consequently, students who encounter challenges with their internet connectivity may find it impractical to effectively engage with these tools. In cases where the internet connection is unstable or weak, the experience of using video conferencing platforms like Zoom can be disrupted, leading to difficulties in participating fully in online sessions, accessing shared content, and maintaining clear audio and video communication. This connectivity constraint ultimately inhibits
these students from experiencing the intended benefits and interactions provided by such tools. This led almost all participants to explore an alternative approach by using WhatsApp to give particular tasks to their students. In this context, teachers utilized WhatsApp to ask the students to do certain tasks by recording verbal explanations of teaching materials, distributing assignments, or engaging in immediate interactions with students. This corresponds with the discovery by Tragant et al. (2021) that educators were attracted to WhatsApp because of its flexible and asynchronous nature. In contrast to the rigidly scheduled video conferencing sessions, the utilization of WhatsApp introduced a unique advantage, providing teachers and students the freedom to interact and exchange information at their convenience. This adaptable quality of WhatsApp facilitated a mode of communication termed asynchronous, where participants were not bound by fixed time constraints. This aspect resonates with the findings from Hapsari et al.’s (2021) study, which underscored the significance of accommodating diverse schedules and individual preferences. Their research demonstrated that learners have distinct periods of heightened attention and availability during the day.

How the technological tools were used to teach EFL speaking during the COVID-19 pandemic

Teaching EFL speaking during COVID-19 pandemic has brought new modes of teaching in the way teachers conducted the classrooms remotely. The modes of teaching were synchronous teaching in which the teachers met their students in a real-time online speaking classroom and synchronous teaching in which the teachers prepared the subject matters for the students to access at a time of their choice. To carry out a synchronous teaching strategy, the teachers and the students were supposed to use some technological tools for video conferencing. Conversely, the teachers undertook an asynchronous strategy when they did not meet the students in a real-time session. The teachers used some messenger tools such as WhatsApp or Telegram to share the instructional materials or to give assignments to the students to do independently. The most common asynchronous speaking tasks for the students to do were completing some exercises from textbook and recording their performance (individually, in pair, or in a group). Once the students finished the tasks, they were supposed to submit their work through WhatsApp, Telegram, FlipGrid, YouTube, Instagram, Google Drive, or LMS.

One interesting tool that teachers used for both synchronous and asynchronous teaching was FlipGrid. FlipGrid is a video-based platform that allowed the students to do their tasks and submit their work in FlipGrid. FlipGrid is not only a multi-function tool, but it can also be used by the teachers in synchronous and asynchronous teaching. In FlipGrid, the teachers assigned their students to practice their speaking skills by making videos. Prior to that, the teachers posted a video(s) with some accompanying text and shared it with their students as the topic for their speaking task. Then the students were prompted to post another video as their response to the topic, in which the
other students could view and comment on their friends’ videos. As noted by Budiarta and Santoso (2020), this task has the potential to effectively engage students in online speaking classes and contribute to improving their speaking skills. Besides, they shared a similar voice with Ipek (2021) perceiving that this platform could foster interaction and communication in distance learning.

The data confirm that teachers utilized student assignments to create individual e-portfolios. At least one participant explicitly mentioned using technology to establish e-portfolios. Others indicated using technological tools to gather assignments, indirectly relating to the concept of student portfolios. This technique was facilitated by Learning Management Systems (LMS), allowing students to complete tasks, discuss, and submit assignments, aligning with Budiarta and Santoso’s (2020) idea that this contributes to e-portfolio creation. This resonates with Kusuma’s (2021) research, emphasizing e-portfolios’ suitability for teaching speaking, particularly in online institutions minimizing offline participation. Rahayu et al.’s (2022) work further supports these findings by highlighting situations where asynchronous teaching was necessary due to internet issues, paralleling this study’s application of such approaches amidst internet disruptions. Additionally, the research by Cahyani & Cahyono (2012) reinforces the relevance of asynchronous strategies to address technological challenges, similar to instances in this study where teachers adapted methods due to connectivity problems. Collectively, these studies affirm the significance of asynchronous teaching and e-portfolio integration, reinforcing the implications of this study.

We summarized the tools that the participants used during the online speaking classrooms due to the COVID-19 pandemic in Figure 1.

![Figure 1. Technological tools used in the online EFL-speaking classrooms](image)

*Figure 1. Technological tools used in the online EFL-speaking classrooms*

**Technological tools preferred for teaching EFL speaking in the post-pandemic**

The infusion of technological tools into online EFL-speaking classrooms during the COVID-19 pandemic has prompted the majority of participants to express their intention to continue employing these tools in their speaking classrooms...
after the pandemic. This finding supports Chtourou and Zouari’s (2020) recommendation that teachers should focus on every possibility to increase optimal teaching progression to meet the adjustable educational setting for the near future in the post-pandemic context. The rationale behind the choice to sustain the use of the participants’ preferred tools in EFL-speaking classes in the post-pandemic has been determined through specific interview questions that focused on exploring the reasons for maintaining these tools. One of the reasons is the adaptability of numerous tools which may be used in both online and offline classrooms. In this context, there is a prevailing belief among the participants that some types of multi-mode messaging tools are highly valuable for a wide range of purposes. For example, Telegram has a rich audio-video feature to record learning tasks and submissions. WhatsApp is famous for its easy accessibility for learners and suitable for an unstable internet connection. A hybrid of LMS and Google Classroom, as well as video communication tools like Flipgrid, were also favored by EFL-speaking teachers for further incorporation in their offline classrooms because those tools were useful for strengthening the learning and assessment. These teachers have implemented a combined teaching strategy, also known as a digitalization strategy (Boström et al., 2021).

It is also worthwhile to discuss teachers’ attitudes toward the use of technological tools. The pandemic has compelled teachers to adapt by incorporating technological tools into their classrooms. From the results of the interviews with our respondents, we can summarize their attitudes toward the use of technological tools based on the challenges they encountered during the online EFL-speaking classrooms. All of the technological tools employed are the result of adaptations to the requirements of online classes and ease of access for their use in class. An attempt was made to keep the learning process going despite the pandemic. The first impression instructors have is that they are being challenged to master how to operate these teaching tools, and they are frustrated when they encounter technical difficulties in using the teaching tools. Fortunately, several academic institutions where these instructors work provided tutorial support or training in the use of various teaching tools, so that teachers can utilize teaching tools effectively in class. There was a feeling of relief and positivity when teachers employed a teaching tool effectively in the classroom, allowing the class to continue running smoothly even in online form. Teachers reconstructed their attitudes as problem solvers, enthusiastic individuals, and confident professionals through practice. In response to the problems of the pandemic, they established new teaching approaches and modified their views of teaching.

This is a relatively common attitude experienced among teachers in general when dealing with new technological tools or digital platforms. This is consistent with the findings of investigations conducted in a similar situation. For instance, Jogezai et al. (2021) pointed out that physical distancing amid the pandemic has altered instructors’ attitudes toward using social media in online learning. They emphasize social media as an appropriate educational strategy during the COVID-19 pandemic because it promotes social connection and allows teachers to set curriculum objectives and student demands.
In addition, this present study has implications for instructors globally, particularly in underdeveloped nations, to shift to online learning through digital platforms such as social media, especially in difficult situations such as the COVID-19 pandemic. Zhang and Hwang (2023) have revealed changes in teacher attitudes in the classroom context as a result of the pandemic. The present study emphasizes the significance of pedagogical flexibility in online teaching, implying that just transferring face-to-face teaching approaches to an online format is insufficient. Teachers must be able to understand the teaching context and rely on its qualities in order to develop effective teaching pedagogies. This viewpoint was corresponded by our teachers’ responses to the selection of technological tools or digital platforms for teaching.

Another empirical study on teacher attitudes that matched our finding was conducted by Georgiou et al. (2023) who investigated teachers who taught in virtual contexts throughout the pandemic. The results of structural equation modeling revealed that self-efficacy beliefs, perceived ease of use, and perceived usefulness were strong predictors of instructors’ attitudes relating to computer use. The present study added to the scarce literature on the crucial role of teachers’ attitudes as drivers of their intention to use technology during emergency remote teaching. Furthermore, it emphasized the importance of taking into account the unique situations in which technology is used and gave insights that can lead to effective strategies and decisions.

Interestingly, our teacher-participants demonstrated a thoughtful consideration of the technological tools they chose not to integrate into their post-pandemic EFL-speaking lessons. Their consensus centered around the idea that video conferencing tools like Google Meet and Zoom Meeting might not find a place in their teaching strategy, as they anticipated a return to in-person instruction within the school or university setting. This outlook suggested a preference for physical classroom interactions over virtual ones. Nevertheless, two participants acknowledged the potential utility of Google Classroom or Zoom Meeting as contingency measures, especially in situations where regular offline classes might be disrupted due to unforeseen circumstances like illness or concurrent events. This indicates a strategic approach to harnessing these tools as backup platforms when necessary.

In brief, while our study offers insights into the online EFL-speaking classroom during the pandemic’s conclusion, we have uncovered multifaceted insights into the adaptation and utilization of these tools into the immediate aftermath of the pandemic by analyzing the perspectives and experiences of the participants. The integration of technological tools in online EFL-speaking classrooms during the COVID-19 pandemic created a distinct opportunity to explore diverse teaching methodologies, including offline learning, blended learning, hybrid learning, and online learning. These models encompass a wide range of instructional approaches, reflecting a diverse spectrum of pedagogical strategies that necessitates continuous scrutiny, adaptation, and refinement as the educational landscape continues to evolve.
Conclusions

The COVID-19 pandemic forced the education sector to rapidly adopt and integrate information and communication technology (ICT) tools into English as a Foreign Language (EFL) speaking classes. This research explored the implications of ICT-based learning in EFL-speaking classes during the pandemic and discussed the potential impact on post-pandemic teaching practices. The research findings indicate that during the COVID-19 pandemic, video conferencing tools, such as Google Meet and Zoom Meeting, were widely used by teachers to create an offline-like online classroom that allowed for direct interaction between teachers and students. However, issues with internet connectivity led to the utilization of messaging apps like WhatsApp, which provided a more informal setting for audio recording and assignment submissions. WhatsApp emerged as a popular tool, especially in areas with limited internet access, offering a means to reduce speaking anxiety and encourage confident speaking through voice notes. Our findings suggest that further exploration is required to fully validate the extent of the enhanced connectedness and effective communication that these tools may have brought about.

Teachers employed both synchronous and asynchronous modes of teaching to accommodate different learning scenarios. Synchronous teaching involved real-time online sessions using video conferencing tools, while asynchronous teaching utilized messenger apps to share instructional materials and assign tasks. Students engaged in asynchronous speaking tasks, such as completing exercises, recording performances individually or in groups, and submitting their work through various platforms like FlipGrid, Google Drive, Instagram, Telegram, WhatsApp, YouTube, or Learning Management Systems (LMS). Among the technological tools used, FlipGrid stood out as a versatile platform for both synchronous and asynchronous teaching. It allowed students to practice their speaking skills through video responses, fostering active involvement and enhancing speaking achievement. Similarly, LMS served as a comprehensive platform for task completion, quizzes, discussions, and assignment submissions. E-portfolios became a viable option for collecting students’ assignments, particularly in institutions relying on online learning.

The research indicated a continued preference for these technological tools in the post-pandemic context. The adaptability of multi-mode messaging tools such as Telegram and WhatsApp, along with the value offered by platforms like FlipGrid and LMS, has emerged from our research findings as a pivotal consideration for teachers exploring integration into offline classrooms. Our data reflects instances where participants explicitly expressed their intention to utilize these tools beyond the online environment. This tangible link between participants’ perceptions and their willingness to embrace these tools suggests that their decision is underpinned by the observed contributions of these tools to learning, assessment, and the broader pursuit of a blended teaching approach and digitalization efforts. Our research findings have shown that teachers considering integration into offline classrooms should take into account the importance of platforms like FlipGrid and LMS, as well as the flexibility of multi-mode messaging tools like Telegram and WhatsApp. Our data includes cases in which
participants have stated clearly that they plan to use these tools outside of the online setting. There is a clear correlation between participants’ impressions and their readiness to adopt these tools, indicating that their choice is supported by the ways in which these tools have been observed to enhance learning, evaluation, and efforts to pursue blended learning and digitalization more broadly. While video conferencing tools like Google Meet and Zoom Meeting may not be extensively utilized in the post-pandemic period due to the resumption of offline classes, yet they could serve as backup platforms in case of unforeseen circumstances or illness. Future speaking classes were predicted to adopt different models, including offline learning, blended learning, hybrid learning, and online learning. Each model represents a unique combination of face-to-face and virtual instruction, with blended learning incorporating traditional classroom settings supported by an online component.

The results of this study hold substantial insights which are adaptable not only for EFL teachers, but also for any future scholars whose interest is integrating ICT in Education context. It is important for teachers to explore different teaching modes, including offline learning, blended learning, hybrid learning, and online learning, based on the availability of internet access and the context of their students. Flexibility in adapting to different teaching modes can help meet the needs of diverse learners. For example, multi-mode messaging tools like Telegram and WhatsApp can be valuable for both synchronous and asynchronous teaching, catering to students’ diverse needs and accommodating areas with limited internet access. Teachers should consider incorporating FlipGrid into their speaking classes, as it encourages active student involvement, fosters interaction, and enhances speaking achievement through video-based tasks and peer feedback. Learning Management Systems (LMS) can serve as a comprehensive platform for organizing speaking tasks, discussions, assessments, and portfolio collection, supporting blended learning approaches. In addition, future research could explore the effectiveness of specific features within technological tools, such as voice notes in WhatsApp or video-based tasks in FlipGrid, in reducing speaking anxiety and promoting students’ confidence in speaking. Future researchers could examine the pedagogical strategies and best practices for integrating technological tools into EFL-speaking instruction, considering factors such as learner autonomy, individualized feedback, and collaborative learning.

We acknowledge the limitations of our research, such as the relatively small number of respondents, which are tailored to the characteristics unique to our context, such as the availability of teaching resources, technological infrastructure, and authentic teaching experiences, which may particularly influence results. Nonetheless, our study’s findings present noteworthy insights on the use of ICT-based learning in EFL-speaking courses during the COVID-19 pandemic, making a substantial contribution to the existing literature. They serve as a basis for future research endeavors. This study emphasizes the need of establishing pedagogical techniques that effectively incorporate technology into language acquisition and are relevant across a variety of educational settings. Moving forward, we propose that future study explore multiple
pedagogical tactics used in various teaching modalities, investigate student perspectives on ICT-based learning experiences, and analyze the problems experienced when adopting these strategies.

Nevertheless, the findings of our study offer a valuable addition to our understanding of how ICT-based learning was employed in EFL-speaking classes during the COVID-19 pandemic. They provide valuable insights and serve as a foundation for future research. However, this study also shows the need to develop pedagogical approaches that integrate technology into language learning, and which can be applied in similar contexts more broadly. Moving forward, there are several avenues for future research, such as exploring pedagogical strategies used in different teaching modes, investigating student perspectives on ICT-based learning experiences or studying the challenges in the implementation of strategies. By doing so, we can continue to refine and improve teaching practices in the post-pandemic era, ensuring meaningful and engaging language learning experiences for all learners in the EFL-speaking classes.

References


Appendix A

Selected interview excerpts

<table>
<thead>
<tr>
<th>Sample</th>
<th>Technological tools used during the pandemic</th>
<th>Teaching strategies/ Tasks</th>
<th>Technological tools for post-pandemic</th>
<th>Teachers’ challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Telegram: I used Telegram because it is unlimited, and it keep the data in Cloud. So, it does not take a lot of space for smartphone storage.</td>
<td>In virtual meeting, I usually ask the students to make a dialog and practice the dialog with their peers.</td>
<td>After the pandemic I will keep using Telegram because it provides audio and video features to record the students’ activities or assignments.</td>
<td>Maintaining students’ enthusiasm for speaking activities was a challenge. The absence of peers and the classroom atmosphere made it harder to ignite their motivation to practice.</td>
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<td>P2</td>
<td>Google Meet: I always use Google Meet because the video recording is directly sent to my affiliation email.</td>
<td>In the virtual meeting using Google Meet, I usually present the teaching materials and ask my students to have a group discussion.</td>
<td>In post pandemic, I want to use e-learning to submit the students’ assignments. Besides, e-learning can serve as the students’ portfolio compiling their works.</td>
<td>Assessing speaking skills online was challenging. Providing detailed feedback on pronunciation and fluency was limited, and students often missed out on personalized guidance.</td>
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<td>P3</td>
<td>Google Meet: I like using Google Meet because it is free and easy to use.</td>
<td>I usually use the platform in e-learning to put the teaching materials in the form of PowerPoint, videos, and files. The students have to record their voice to answer questions/tasks I posted in the e-learning. Then, I give feedback by recording my voice too.</td>
<td>I will ask the students to use social media such as YouTube, Instagram, and TikTok to practice their English-speaking ability.</td>
<td>I had to swiftly learn how to create engaging multimedia content for their lessons. The process of recording and editing videos, and integrating them into the curriculum, posed a learning curve for many.</td>
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<tr>
<td>Sample</td>
<td>Technological tools used during the pandemic</td>
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<td>P4</td>
<td>WhatsApp: I used WhatsApp because it is the most feasible app for us to use, especially students who have internet connection issue.</td>
<td>I explain the materials using voice note in WA. Students should do an individual work because they could not meet their friends due to COVID-19. Besides voice note, I also write or typed some tasks to answer some questions and the students wrote their answers or send their work in our class private WA group.</td>
<td>I still want to use WA after the pandemic.</td>
<td>One major challenge I found during online speaking class was internet connection issues.</td>
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<td>P5</td>
<td>Learning Management System (LMS): I made an LMS called “live class”. It included several features such as forum and attendance list that automatically detected students’ presence when they login to the LMS. It is also integrated to Zoom.</td>
<td>The strategy is a lecturing model. Since the students hardly use Zoom due to unstable internet connection, I asked them to do the tasks I explain in the WA and use our private WG group to submit their work. I made my own video then I uploaded in YouTube. So, the students learn independently by visiting the video in the YouTube. For the assessment, I asked the students to do the exercise in the textbook and then they write their answer.</td>
<td>I will use WA after the pandemic, but I plan to make an android-based application containing books, digital library, forum, and examination to help the students learn offline.</td>
<td>The students hardly use Zoom due to unstable internet connection.</td>
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<td>P6</td>
<td>FlipGrid: I use Flipgrid because students can send video recordings of speaking tasks and I can comment on their own or their friends’ video either with verbal responses or video responses. Zoom Meeting: I like to use Zoom it gives a face-to-face atmosphere like in an offline class. I can directly see my students’ speaking performance and give direct feedback to them.</td>
<td>In virtual meetings, I usually ask the students to present and have a group discussion through the breakout rooms. In asynchronous mode, I frequently assign students to have recorded group or pairs discussions and submit the assignments in FlipGrid. Otherwise, they could access a license book from Cambridge Prism 1-3 through LMS Cambridge.</td>
<td>After the pandemic, I will use Google Classroom that is integrated with the campus LMS and serve as a repository for submitted assignments.</td>
<td>The shift to online teaching necessitated a rapid acquisition of unfamiliar software, demanding a significant learning effort. Fortunately, my institution offered training sessions that facilitated this process.</td>
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<td>P7</td>
<td>Zoom Meeting: I use Zoom because it is easy to use, and I can interact with my students directly. FlipGrid: I like the features Flipgrid has.</td>
<td>In virtual meetings, I usually require the students to have a group discussion, pair works, and small group talks. In asynchronous classroom, I usually ask the students to submit or do a group task (group discussion, pair works, and small group talks) and submit it to FlipGrid. Then, I give them feedback using video in FlipGrid. The students could also respond to their friends’ video as well.</td>
<td>After pandemic, I will continue to utilize FlipGrid for giving assignments or giving supplementary or reinforcing learning resources. I like the features Flipgrid has.</td>
<td>I had to quickly educate myself on new tools and platforms, which led to varying levels of confidence in using technology effectively.</td>
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