

FACTORS HINDERING THE INTEGRATION AND POTENTIAL OF TECHNOLOGY IN EFL CLASSROOMS

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Abstract

Teachers play essential roles in ensuring the success of technology integration and maximizing the potential of technology in the teaching and learning practices. Therefore, it is crucial to know some factors that might hinder teachers from successfully integrating and fully maximizing technology's potential in various educational levels, such as those in English as a Foreign Language (henceforth called EFL) contexts. To achieve the objective of the study, the researcher examined twenty empirical research articles from sixteen peer-reviewed journals from 2009-2020 using Google Scholar, JSTOR, and ScienceDirect databases. The analysis results could be categorized into five main themes: (1) dealing with too many school administrative tasks, (2) lacking skills to use technology, (3) lacking relevant technology training, (4) dealing with constraints to join technology training, and (5) lacking access to technology. The discussions of each theme in light of the relevant literature, practical solutions to deal with the situations, and directions for further research are presented.

Keywords: foreign language classroom, reflection, technology integration

Introduction

EFL teachers' inability to successfully integrate and fully maximize technology's potential for supporting students' language learning becomes a crucial issue to address for the following reasons. First, there have been top-down approaches initiated by the Ministry of Education or related entities in some countries to encourage technology integration in schools (Mali & Timotius, 2018). The government in India, for instance, has an explicit mission statement to "devise, catalyze, support and sustain Information and Communication Technology (ICT) and ICT enabled activities to improve access, quality, and efficiency in the school system" (Department of School Education and Literacy Ministry of Human Resource Development Government of India, 2012). Moreover, although not necessarily at each grade, many developed and developing countries in Asia have set recommendations for integrating ICT in education in all subjects and levels (UNESCO Institute for Statistics, 2014).



Second, regardless of its technical problems, technology can support language learning activities. For instance, technology makes classroom more appealing to students (Park & Son, 2009). A teacher in Indonesia said that “compared to printed books, ICT tools are more interesting. The students will not feel bored when learning English as they can directly watch conversation videos and find many pictures related to the lesson” (Muslem, Yusuf, & Juliana, 2018). Technology can also help students learn independently (Alsied & Pathan, 2013). In line with this finding, a survey of 130 EFL students at a university setting in Iraq reported that “the students agree (53.1%) and strongly agree (26.9%) that using technology gives them more control over their English language learning” (Mohammed, 2015). A survey of 783 educators in five educational institutions in Vietnam informed that “computers would motivate students, help students work with one another, stimulate creativity, and improve the quality of students’ education” (Peeraer & Petegem, 2011). In a recent survey of 101 teachers in 10 public secondary schools in Kuala Lumpur, Malaysia, “the participants agree (57.4%) and strongly agree (33.7%) that ICT enables their students to be more active and engaging in the lesson” (Ghavifekr & Rosdy, 2015). With technology, students can send instant messages, connect to the real world, create an authentic learning environment (Dina & Ciornei, 2013), and engage in an audio or video-based conversation that might enhance their speaking and listening skills (Wang, 2005).

Third, technology has been a part of students’ learning processes. Cambridge Assessment International Education (2018) conducted a recent survey of nearly 20.000 students and teachers worldwide. The survey reported that “the technology trends seen in the classroom are reflected in how students do homework; “two-thirds of students (65%) do homework on a laptop” (p. 4). In the survey, “almost half (42%) of students globally said they use a smartphone.” (p. 13). In a recent survey of 149 English-major students at a university in Vietnam, “most of the respondents (87.2%)” expect that ICT is used more frequently to help them improve their English language skills (Tri & Nguyen, 2014).

Last, teachers are the main components for learning using technology in schools (Yusri & Goodwin, 2013) and play an essential role in educating the future generation about technology (Li & Ni, 2011). When teachers fail to integrate technology and fully maximize its potential for teaching and learning, they might not satisfy the national related policies and initiatives, guide the students to navigate their electronic devices for learning purposes better, allow learning opportunities that might happen with the use of technology, and achieve their role as the critical component for learning with technology. Therefore, it is essential to locate, analyze, and synthesize empirical research studies across countries and educational levels on some factors that might hinder teachers from successfully integrating and fully maximizing the potentials of technology, such as those in EFL contexts, where English is learned in a formal classroom with very few opportunities to use the language outside the classroom (Richards & Schmidt, 2010). The following research question guided this study: *What are some factors that might hinder teachers from successfully integrating and fully maximizing technology’s potential in EFL contexts?*

Answers to the research question above should complete similar discussions of the previous studies that were mostly limited to a single setting and educational

level (e.g., Aydin, 2013; Celik, 2013; Diamini & Mbatha, 2018; Li & Walsh, 2010; Muslem et al. 2018; Singh & Chan, 2014). The results should also interest fellow teachers, educators, and policymakers looking for empirical and research-based evidence on why teachers might not successfully integrate and fully maximize technology's potential in their teaching practices and for practical solutions to solve the situations. Besides, this study should benefit fellow researchers looking for empirical gaps to explore in their future studies.

In this article, the word technology deals with interconnected concepts. Technology is often associated with ICT use as it provides access to information using telecommunications, such as cell phones, networks, wireless, the Internet, and other communication mediums (Floris, 2014). Next, technology might be categorized into the Internet, software, and hardware (see Stanley, 2013). The word technology can also be related to Computer Assisted Language Learning (CALL), themes asserted by Egbert and Shahrokni (2018). Therefore, technology (e.g., electronic devices, internet, hardware, and software) should only be used to facilitate the language learning process and not be put ahead of learning in classrooms. In other words, "teachers should not try to be technocentric in their thinking" (Egbert & Shahrokni, 2018, p. 11). Based on the above notions, this study defined technology into various types of tools, such as electronic devices, the Internet, hardware, and software, which can be used to access information, facilitate communications, and facilitate language learning. This working definition should fit in the context of teaching and learning practices, such as in Indonesia because previous Indonesian researchers (e.g., Mali, 2023, 2024; Mali & Santosa, 2021; Mali & Timotius, 2018; Muslem et al., 2018; Mudra, 2018; Silviyanti & Yusuf, 2015; Wahyudi, 2015) have similarly contextualized technology as electronic tools, software, or hardware intertwined with Internet use for teaching and learning purposes.

Method

Research design

Following Akçayır and Akçayır's (2017) and Li's (2012, 2018) literature review analysis, the methods employed in this paper included searching databases and journals, identifying relevant studies, locating articles, creating annotated summaries, sorting evidence, and finding into different categories.

Articles to review

To locate the research articles about some factors that might hinder teachers from successfully integrating and fully maximizing technology's potential, I strategically searched databases that index educational research, such as Google Scholar, JSTOR, and ScienceDirect. When searching the articles in these databases, I played with the following keywords: (1) perceptions of ICT use in English language classrooms, (2) barriers on technology in language classes, (3) perceptions of technology in language classrooms, (4) teachers' perceptions of using technology in language classes. I also selected the advanced search options in the databases to have fully accessible content and narrow the exploration subjects (e.g., education) and publication date in the last ten years.

Data review procedures

After downloading and scanning the full text of the articles, I wrote annotated summaries for twenty research articles (see Table 1) conducted in EFL settings, where students learn English in a formal classroom with few chances to use the language outside the class (Richards & Schmidt, 2010). Besides the setting, the articles are selected because they have many citations (e.g., in Google Scholar), seem to be quality research articles, and are the most connected to this study. Of course, the articles' selection might be biased based on my professional judgment and positionality as a researcher and lecturer at a private university in Indonesia. Other researchers might have different criteria for selecting articles to review.

Table 1. The distribution of empirical articles reviewed in this paper

Authors	Title of the Article	Journal Title	Contexts and Participants	Research Instruments
Ashrafzadeh and Sayadian (2015)	University instructors' concerns and perceptions of technology integration	Computers in Human Behavior	90 university instructors across different geographical areas in Iran	A questionnaire followed by a semi-structured interview and focus group discussions
Boersma and Getu (2016)	Ethiopian EFL teachers' perceptions and utilization of mediational potentials of the internet in ELT	Teaching English with Technology	21 EFL teachers at a university in Ethiopia	A questionnaire
Boucheфра and Baghoussi (2017)	Algerian EFL university teachers' attitudes towards computer assisted language learning: The case of Djilali Liabes University	International Journal of Education & Literacy Studies	36 language teachers in an English language department in a university in Algeria	A questionnaire
Cahyani and Cahyono (2012)	Teachers' attitudes and technology use in Indonesian EFL Classrooms	TEFLIN Journal	37 teachers teaching EFL at different levels of education based in Malang, East Java, Indonesia	A questionnaire
Celik (2013)	Internet-assisted technologies for English language teaching in Turkish universities	Computer Assisted Language Learning	486 EFL instructors at 11 Turkish universities	A questionnaire
Deerajviset and Harbon (2014)	E-learning in EFL education in Thailand's higher education: The role	University of Sydney Papers in TESOL	51 EFL lecturers in two universities in Thailand	Questionnaires and interviews

Authors	Title of the Article	Journal Title	Contexts and Participants	Research Instruments
	for lecturers making it work			
Diamini and Mbatha (2018)	The discourse on ICT teacher professional development needs: The case of a South African teachers' union	International Journal of Education and Development using Information and Communication Technology	986 teachers from nine South African provinces	A questionnaire
Hafifah and Sulisty (2020)	Teachers' ICT literacy and ICT integration in ELT in the Indonesian higher education setting	Turkish Online Journal of Distance Education	280 EFL lecturers from more than 130 different universities in Indonesia	An online (<i>Google-Form</i>) questionnaire
Hedayati and Marandi (2014)	Iranian EFL teachers' perceptions of the difficulties of implementing CALL	ReCALL	100 Iranian EFL teachers; 48 teaching at language institutes, while the others teaching at universities	A questionnaire and group interview
Kreijns, Acker, Vermeluen, Buuren . (2013)	What stimulates teachers to integrate ICT in their pedagogical practices? The use of digital learning materials in education	Computers in Human Behavior	710 primary school teachers and 499 secondary school teachers in the Netherlands	A questionnaire
Li and Ni (2011)	Primary EFL teachers' technology use in China: Patterns and perceptions	RELC Journal	141 EFL teachers in 20 primary schools in six districts in Shanghai, China	A paper-pencil based survey
Li and Walsh (2010)	Technology uptake in Chinese EFL classes	Language Teaching Research	400 EFL teachers from different types of school in Beijing, China	Questionnaires and follow-up focus group interviews
Muslem et al. (2018)	Perceptions and barriers to ICT use among English teachers in Indonesia	Teaching English with Technology	26 English teachers from 16 public senior high schools in Banda Aceh, Indonesia	A questionnaire and a focus-group interview

Authors	Title of the Article	Journal Title	Contexts and Participants	Research Instruments
Nguyen, Philipsen, Muls, Wang & Lombaerts (2018)	Motivation and barriers for university teachers to apply blended learning in language classes	Journal of English as an International Language	15 teachers from the Department of English at a university in Vietnam	A semi-structured interview
Park and Son (2009)	Implementing computer-assisted language learning in the EFL classroom: Teachers' perceptions and perspectives	International Journal of Pedagogies and Learning	12 EFL teachers in a secondary school in Korea	A questionnaire sent via email and an interview
Salem and Mohammadzadeh (2018)	A Study on the integration of ICT by EFL teachers in Libya	EURASIA Journal of Mathematics, Science and Technology Education	32 EFL teachers at a state university in Libya	A questionnaire and semi-structured interview
Silviyanti and Yusuf (2015)	EFL teachers' perceptions on using ICT in their teaching: To use or to reject?	Teaching English with Technology	42 EFL teachers at two state universities in Indonesia	A questionnaire and semi-structured interview
Solano, Cabrera, Ulehlova, & Espinoza (2017)	Exploring the use of educational technology in EFL teaching: A case study of primary education in the south region of Ecuador	Teaching English with Technology	15 EFL teachers from 10 state schools in Ecuador	A questionnaire and class observation sheets
Son, Robb, & Charismiadji (2011)	Computer literacy and competency: A survey of Indonesian teachers of English as a foreign language	CALL-EJ	73 in-service teaching EFL at some schools and universities in Indonesia	A questionnaire
Zyad (2016)	Integrating computers in the classroom: Barriers and teachers' attitudes	International Journal of Instruction	56 EFL secondary education teachers at a province in Morocco	A questionnaire and a semi-structured interview

Next, I stored all articles in Table 1 above in my reference management software, *Mendeley*. I put the articles' information in the software to generate the

APA citation format for the references section. Also, I highlighted important aspects of the articles (e.g., the methods, findings, and conclusions of the study) and took notes. When I drafted the annotated summaries, I tried to distinguish between the researchers' claims and evidence. Five themes emerged during this process, which indicated the factors that might hinder teachers from integrating and maximizing the technology's potential. Supporting evidence (i.e., thick description, excerpts of interview data, numbers, or percentages) were presented under each theme.

Findings and Discussion

This section presents five themes as answers to the research question: *What are factual factors that might hinder teachers from successfully integrating and fully maximizing technology's potential in EFL contexts?* Each theme is discussed in light of the relevant literature.

Theme 1: Dealing with too many school administrative tasks

The potentials of technology were less explored and maximized in classrooms as teachers (e.g., in secondary or senior high school contexts) had too many school administrative tasks. For instance, an EFL secondary school teacher in Korea conveyed that administrative responsibility hindered the use of CALL: "Korean teachers must do many administrative jobs such as filling in an application form for entrance to a high school. After school, heaps of files and documents I have to take care of are waiting for me" (Park & Son, 2009). An English teacher in Indonesia also has a similar voice, "I don't have time; there is a lot of administrative work. I know a teacher who can use ICT but rarely uses it for teaching because, like I said, we have a lot of paperwork to do for school" (Muslem et al., 2018). If these conditions happen continuously, teachers might fail to respond to the national policies (UNESCO Institute for Statistics, 2014) that encourage them to integrate technology into their teaching and learning practices (Mali & Timotius, 2018).

Theme 2: Lacking skills in using technology

Some studies reported that teachers lacked the skills to use technology for teaching and learning purposes. In a survey of 73 in-service EFL teachers at some schools and universities in Indonesia, Son et al. (2011) reported that "37% of the respondents lacked computer skills in the class" (p. 32). A university lecturer in Vietnam said, "I'm not good at using technology (...)" (Nguyen et al., 2018). An EFL lecturer in Thailand mentioned that "I think everyone is aware of the potential of ICT, but we are also a bit worrying about it or nervous about using it" (Deerajviset & Harbon, 2014). An English teacher in Indonesia admitted that "the tools are accessible in my school. The Internet is also connected. But the problem is that I cannot use it. I do not know how to use any of the tools. So I decided not to use it for my teaching (...)" (Muslem et al., 2018, p. 14). Teachers' lack of skills in using the Internet for English language teaching purposes was also reported by Boersma and Getu (2016), who conducted their study at a university in Ethiopia. An Iranian EFL teacher mentioned that "the teachers are afraid of technology; one big reason is that they are not familiar with the technology. They are afraid of it. They are not comfortable with it" (Hedayati & Marandi, 2014, p. 309). Similarly, Solano et al. (2017) reported that most EFL Ecuadorian teachers in their study

“avoid applying technological tools because they consider them difficult to use; (...) teachers were struggling with the basic devices that the institution provided” (p. 83). With the findings from the previous studies, I agree with Hockly and Dudeney's (2018) view that (pre-and in-service) teachers should have adequate training in the use of technologies in teaching and learning; otherwise, they might experience challenging situations using technology.

Theme 3: Lacking a relevant technology training

Accorded with Hockly and Dudeney's (2018) argumentation, some researchers (e.g., Boersma & Getu, 2016; Bouchefra & Baghoussi, 2017; Cahyani & Cahyono, 2012; Hafifah & Sulisty, 2020) also believed that joining a technological training might be a straightforward solution to enhance teachers' technology skills and educate them on integrating technology into their teaching practices. An EFL teacher in China said, “I think I would be more willing and comfortable to use computers in my teaching if I could go to a CALL training course first” (Li & Walsh, 2010, p. 113). Similarly, an EFL teacher from Iran mentioned that “There is a need for more training sessions” on technology (Ashrafzadeh & Sayadian, 2015, p. 66).

However, some of the technology-related training programs were mainly related to technical skills (e.g., using *PowerPoint*) rather than enhancing pedagogy with technology associated with the school curriculum. For example, a large-scale study surveyed 450 EFL secondary school teachers in Beijing, China; the study reported that computer training courses mainly focused on technology skills, such as the use of *PowerPoint* (65%), *Word* (65%), and *Excel* (61%) rather than on enhancing related teaching skills on how to integrate ICT into lessons (Li & Walsh, 2010). In the following year, a study involving 72 EFL teachers in 20 primary schools from six districts in Shanghai found that “most of the professional development in technology was not connected with EFL teachers' curriculum or content or did not help them better engage students' learning through technology” (Li & Ni, 2011, p. 80). Li and Ni (2011) reported that only 8.7% of the participants felt their technology PD was directly connected to their curriculum. These research findings might explain why teachers sometimes use technology only “to keep their students busy during class” (Trinder, 2017, p. 409) and only as a tool to deliver instructions without engaging students in meaningful learning activities (Li & Ni, 2011). However, it is unfair to depend entirely on a technology training program, which usually lasts only a short period. I believe that teachers need time to practice and integrate technology in their classrooms successfully

Theme 4: Dealing with constraints to join a technology training

Some studies reported a technology-related training program was not accessible for some teachers due to time and monetary constraints. In Thailand, lectures ($n=8$) in two universities were unwilling to join the training. Two of them said that “I don't have enough time for professional development in ICT” (teacher 1) and “(...) sometimes I feel I don't have enough time to attend workshops held at the same time of my teaching hours” (teacher 2) (Deerajviset & Harbon, 2014, p. 56). Limited budgets usually prevent schools from letting all teachers participate in the training program (Kreijns et al., 2013). This view might be in harmony with a large-scale study involving 986 teachers from nine South African provinces; 28%

of the respondents said that the programs were too expensive for them (Diamini & Mbatha, 2018). I agree that some technology training programs are costly as the committees need to invite and pay for national or world-class technological experts. Although teachers can now join free training programs, such as online webinars or technological conferences, which are usually accessible from *YouTube*, empirical studies need to determine if such programs can give teachers insights into using technology for language learning purposes. Some teachers join online webinars only to get a certificate for their teacher certification or annual review. Also, talking about the conferences, we need to take Hubbard and Ioannou-Georgiou's (2017) critique seriously that local, regional, or even international conference speakers often share their technological practices "all without reference to available underlying literature and focus solely on the technical and positive aspects of it uncritically, seeing their students' interactions with and through technology through digital rose-colored glasses" (p. 11).

Theme 5: Lacking access to technology

Some studies also reported the lack of technology access as a factor that hindered the teachers from integrating and maximizing technology's potential. An EFL teacher from Indonesia said that "(...) The number of computers is limited on our campus because they cost a lot of money. So, we do not have easy access. It is still limited to campus. I hope there are more facilities in the future" (Silviyanti & Yusuf, 2015, p. 39). Similarly, 304 EFL teachers from 11 Turkish universities considered limited computer facilities a barrier to Internet use in language teaching (see Celik, 2013). Some researchers (e.g., Boersma & Getu, 2016; Ziad, 2016) also reported insufficient technological tools as the main problem that hindered some English teachers from using ICT for their teaching purposes. Similarly, an English teacher from Indonesia said, "We also have a problem of low Internet connection, and have to wait for the chance to use the projector" (Muslem et al., 2018, p. 14). In a survey of 32 Libyan EFL teachers, Salem and Mohammadzadeh (2018) summarized their participants' voices that "Little attempt has been made to build ICT infrastructure so the educational centers can be equipped with ICT facilities" (p. 2794). Recently, Hafifah and Sulisty (2020) surveyed 280 EFL lecturers from more than 130 different universities in Indonesia. They found out that "41.66% of the respondents "don't cater with enough facility an infrastructure that can support them to apply ICT in English language teaching; Internet access is quite problematic in rural areas of Indonesia" (p. 194). The government, policymakers, or related stakeholders should thoughtfully respond to the teachers' voices regarding their access to technology. Will they take the initiative to allocate funding to equip schools with both hardware (e.g., a head projector in every class and broadband internet connection) and language learning software (as concerned by Ziad, 2016) to support language teaching and learning activities?

Conclusion

The study has examined empirical research studies related to factors that might hinder teachers from successfully integrating and fully maximizing technology's potential, particularly in EFL contexts. Those factors are the teachers: 1) deal with too many administrative tasks; 2) lack of skills in using technology; 3) experience time and monetary constraints to join a technology-related training

program; 4) join a technology training program that is not relevant to the school curriculum and focuses more on discussing technical skills than enhancing pedagogy with technology; 5) lack of access to technology.

In response, I posit that a more active initiative should be made to enhance teachers' technology skills and integrations in their classes without waiting for the technology training, which might be costly and less accessible for teachers in some places. For example, the initiative might be started from a classroom level and be an integral part of daily teaching practices so that all teachers can participate without experiencing time and monetary constraints.

In this case, having a monthly regular technology meeting to practice using technology for language learning might be a good start. Practically, a school director or department head can assign an ICT literate teacher of the school to share his/her experiences teaching English language skills, such as writing, reading, listening, or speaking with technology. The teacher can start with a simple technology tool that teachers are familiar with, such as PowerPoint, (Mohammed, 2015), online dictionaries (Muslem et al., 2018; Tri & Nguyen, 2014), or word processing (Son et al., 2011). In support, the school director can also invite tech-savvy students to accompany and provide one-on-one assistance to every teacher during the technology meeting. All teachers in the school should come to this meeting where they can "analyze how to use technology, give one another feedback, brainstorm ideas, and play together" (Muhtaris & Ziemke, 2015, p. 23) with technology. None is allowed to give judgmental feedback on each other's ICT skills. During the meeting, the main principle is that "it is okay not to know, to struggle and make mistakes when dealing with technology, and that we all learned from the experience" (Lewis, 2018, p. 1760). Hopefully, this meeting can equip teachers with knowledge on using technology for language teaching and learning purposes beyond administrative tasks, such as preparing lesson plans and report cards or administering tests.

Doing teachers' reflections can be the next point of departure to enhance teachers' technology skills. Practically, teachers can put a video camera on the corner of the class and record their classroom teaching practices with technology to see which parts worked and did not work well, "think about their teaching after the class, and give reasons for their actions and behaviors in class" (Farrell, 2004, p. 28). Does their decision to use technology in their class only make their students busy without meaningful learning activities? Then, they can invite one or two supportive colleagues to view the videos and discuss the teaching practices together. The colleagues should be the ones who can encourage specificity of teaching practices, provide constructive feedback, and advocate for their teaching success (Costa & Kallick, 1993) with technology. When the video is discussed with a supportive colleague, it can be a powerful means to improve teaching practices (Gün, 2011; Walsh & Mann, 2015).

If teachers are not yet ready to record and discuss their teaching practices with their colleagues, they can observe other teachers who are more ICT literate and discuss what they observe. A teacher said that "observation gives us new insights about our performance because we are exposed to various teaching styles. We can easily compare ourselves with the observed teacher and find the areas [in our teaching] that need improvement" (Moradkhani, 2019, p. 66). This claim is consistent with another teacher's voice: "I started a friendly communication with

my colleagues [i.e., the observed teachers] talking about the teaching sessions. The outcome was wonderful as either I learned something new, or I could suggest better teaching alternatives to my colleagues” (Moradkhani, 2019 , p. 67).

Dealing with access to technology, policymakers or related stakeholders should take a more active role in providing technology facilities in schools (Ashrafzadeh & Sayadian, 2015). Besides, the government should also be committed to securing easy access to the facilities and providing technology devices in all schools in its country; only then, more teachers can use technology and maximize its potentials in their language classrooms (Mali, 2017). However, there might be some questions to reflect on: What technological tools should be provided in schools? How many computers/laptops should be available in each class? How high should a school's Internet bandwidth be for teaching and learning purposes? What kind of language learning software do teachers need? Can building a language lab in a school directly solve the problem of limited access to technology? In answering these reflective questions, I affirm Li and Ni's (2011) argumentation that “schools cannot just purchase popular hardware or software; instead, they must actively involve teachers in decision making and in instructional design to achieve alignment among technology, curriculum, and pedagogy (p. 82).

In my reading of the literature, I find some research gaps that might be fruitful for future research explorations. First, little is known about “the actual use of technology in teaching and learning process in classrooms” (Singh & Chan, 2014, p. 883) beyond statistical data on teachers’ attitudes toward technology, types of technology applications they use, and perceptions towards advantages and disadvantages of using technology in classrooms. This kind of research will respond to a voice that “E-learning should build on bottom-up approaches, what lecturers are coping with and what they really need” (Deerajviset & Harbon, 2014, p. 53). Second, documenting classroom-based problems or challenges of integrating technology into productive-language classes, such as speaking and writing, remains scarce. Third, specific classroom-best practices information on what teachers should do to maximize the potential of technology, particularly in EFL settings in higher education, such as in Indonesia, a setting which has received less attention from qualitative researchers in second language acquisition studies, need to be explored further. Last, a closer exploration of how teachers use the applications, such as PowerPoint, online dictionaries, email, and word processing, might need to be done. The exploration can document the strengths and weaknesses of using the apps to achieve some language learning objectives and suggest practical ideas for maximizing the applications’ potential. In closing, future researchers can confirm/refute if the five hindrance factors to using technology discussed in this paper are still applicable, specifically during the recent pervasive development of artificial intelligence in education.

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