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Research Article:

Practices and Effectiveness of Online Teaching of English in Bangladeshi Universities: Implications for a Revised TPACK

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ABSTRACT

This paper reports an empirical study on the practice and effectiveness of online EFL teaching during COVID-19. Teachers had to shift to an online mode of teaching very suddenly with no previous experience and without much preparation. Their practices and effectiveness were investigated using the Technological Pedagogical and Content Knowledge (TPACK) theoretical model as the framework. A mixed method research design was planned and carried out in Bangladeshi universities using a web-based survey and indepth interviews. Data from 50 university English teachers highlight the need for a student-oriented perspective in teacher education and the creation of online teaching-based teacher development programmes (TDP) to enhance students' experiential learning in online platforms, in line with the 'learning technology by design' approach. More importantly, the element of "Context" (XK) and "Classroom Management Knowledge" (CMK) have emerged as important 'new' tenets of TPACK. Hence, a revised version of TPACK is suggested. Further research and discussions are advocated before it could be established and propagated as an acceptable version of TPACK.

Keywords: Online EFL teaching, COVID-19, digital technology and applications, social networking sites, TPACK

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INTRODUCTION

English language teachers, like teachers in other areas of education, were not prepared for online teaching and learning that the COVID-19 pandemic situation necessitated (Andriivna et al., 2020; Atmojo & Nugroho, 2020). They were not very knowledgeable and skilled in the use of technologies for teaching and learning purposes (Duraku & Hoxha, 2021; Fatima, 2020). These challenges were felt more acutely in developing nations (Rajeb et al., 2022; Willies, 2023). Teachers had to "cobble together lessons" from Google Classroom and other available open access resources and concurrently devise judicious plans to deliver them in digital platforms. Basically, they struggled to adapt and adopt these technology-driven methods and unfamiliar circumstances of online teaching.

In the context of higher educational institutions (HEI) in many developing nations, especially in contexts where English is taught as a second, third or foreign language, English language teachers lacked ICT literacies and the appropriate pedagogical knowledge and skills in planning and carrying out meaningful and effective online teaching and learning. For instance, in Thailand, Kanchai (2021) cited the lack of fundamental pedagogical and technological knowledge, while Gao and Zhang (2020) reported most Chinese teachers in HEI had little or no knowledge and skills to use advanced technologies for teaching online classes. In addition, teachers had to create opportunities for students to learn and practice different language skills, whilst sustaining a good standard of teaching, learning and testing, which is always a major concern for teachers in HEI (Atmojo & Nugroho, 2020).

Similarly, in the context of Bangladesh HEIs, most English language teachers struggled to acclimatise to the "new normal" mode of teaching that required them to adopt and adapt the new approaches in the online mode of learning and environment. They faced myriads of problems and challenges that include, "insufficient logistic support from the institutes, unavailable and slow internet supply, students' want of required technological devices, students' unaffordability…learners' disinterestedness in virtual classroom, lack of sufficient financial support to the teachers, insufficient technological support" (Hossain, 2021, p. 49–50). These barriers had always existed even before the pandemic, as face-to-face (F2F) teaching had always been the preferred approach. Nevertheless, e-learning, online learning and blended were practiced, but not extensively and intensively (Mou, 2016).

The critical question: Was the online teaching of English effective, and to what extent? It is necessary to examine closely how well the English language teachers taught, as well as managed the OTL. These refers to the teachers' practices, and such practices define and impact effectiveness (Author). Lasari (2021) too recognises that classroom management strategies have an impact on student accomplishment and learning. More importantly, the effectiveness and productivity of online English instruction are influenced partly by how well the learning environment is managed by the teachers (Nuñes, 2021). If these are not effective, measures must be taken for improvement since English is a crucial tool for communication (Ho, 2020), personal and professional development of students and workers (Islam et al., 2022), the overall national progress and development (Ali & Hamid, 2020), and economy of the country (Ho, 2020).

We designed and conducted a study with the following research questions to accomplish the aforementioned goal:

RQ1: What are the practices of online teaching of English at the university level in Bangladesh during the COVID-19 pandemic?

RQ2: What are the teachers' views of the effectiveness of online English teaching at the university level in Bangladesh during the COVID-19 pandemic?

This study focuses on online teaching of English because it diverges markedly from teaching of other subjects in terms of "the nature of the subject, the content of teaching, the teaching methodology, and teacher-learner relationships" (Borg, 2006, p. 3). Such uniqueness necessitates varied interactional patterns/dynamics between educators and students relative to other disciplines, given the paramount emphasis on communicative proficiency as an end in itself. English language instructors need to provide learners with a stimulating and rich language environment (Russell & Von Esch, 2018; Sobakar, 2022), as well as fulfill the needs of students rather than prescribing contents and rules of language in a predetermined manner (Kumaravadivelu, 2005). Such practices require teachers to engage learners in meaningful activities that would enhance their language skills. However, numerous studies (see Allo, 2020; Gao & Zhang, 2020; Lengkanawati, 2021) show that teachers face greater difficulties and challenges in organising student-centred and engaging English language classes on online platforms. While teachers are already navigating an intricate landscape of English language teaching (Bloome, 2022), the shift to online mode introduces further complexities (Fitria, 2023). This is particularly evident in technologically underdeveloped and inexperienced nations like Bangladesh, where English is considered as a "vehicle of change and development both by individuals and the government" as well as a "passport to access the wider world" (Amin & Greenwood, 2022, p. 1).

Therefore, by examining the practices of effective English teaching in the online mode in Bangladesh, we would be able to establish quality higher education in developing skilled human resources proficient in English. Such studies would allow countries like Bangladesh and other third world countries to:

- 1. Align and adjust to the current trends and shifts of online teaching of English.
- 2. Further engage in innovative English language teaching.
- 3. Improve overall learning (Mustapha & Kurt, 2021).
- 4. Accelerate globalisation by boosting trade and commerce (Adawiyah & Gumartifa, 2022).

Hence, based on the findings of the study (in answering RQ1 and RQ2), we will attempt to provide relevant and meaningful implications of effective teaching and learning of English using online platforms and environments.

LITERATURE REVIEW

English Language Education in Bangladesh

Since Bangladesh attained independence in 1971, successive governments until the 1980s de-emphasised and downplayed English education. This was profoundly influenced by linguistic nationalism and the Language Movement of 1952 which ignited the aspirations of the then East Pakistanis for the establishment of a self-governing and sovereign nation leading to the emergence of Bangladesh (Khan, 2024). During that period, English had been poorly taught at primary and secondary school levels, which failed to prepare students for the "kind of skills undergraduates require for advancing in English languages and literature courses at the university level" (Alam, 2021, p 1). This scenario began changing with the recognition of English as a foreign language by the Bangladesh Education Commission of 1974 (Chowdhury & Kabir, 2014). This decision, coupled with the growing importance of English language courses across all public universities in Bangladesh (Kirkgöz, 2009). This move was initiated and implemented by the University Grants Commission (UGC), a prominent statutory body entrusted with overseeing higher education in Bangladesh since the 1990s (Rahman, 2005).

In partnership with the British Council, UGC has been working to revamp English language instruction within Bangladesh's HEIs by conducting a comprehensive needs analysis of students and devising impactful language teaching modules (British Council, 2012). Prior to that, English was only made a compulsory subject for both major and non-major courses in universities in 1994 (Rubel, 2019). In teaching these courses, most of the educators assumed teacher-centred dominant roles in the classroom, typically imparting knowledge through lectures, while students passively listened and absorbed information by taking notes sporadically (Begum, 2019; Islam, 2019; Rahmatuzzaman, 2018; Shahidullah, 1997). The instructional approach revolved around the transmission of knowledge, and with minimal emphasis placed on fostering students' independent discovery of knowledge and ideas, cultivating analytical capabilities, or encouraging multidimensional thinking (Amin, 2019; Shaila & Trudell, 2010). Also, students were not actively engaged in "any kind of practice activities may it be on literary issues or on linguistic elements" (Amin, 2019, p. 21), which seriously affected students' abilities to become proficient users of the language.

Online Teaching and Learning in Bangladesh (OTLB)

The above learning passivity of Bangladeshi students deepened (Afrin, 2020; Hossain, 2021; Murtaza, 2021) during the pandemic when educators were forced to transition to an entirely new mode of instruction. This problem is further compounded since online education was never practiced widely and institutionalised in Bangladesh prior to the COVID-19 outbreak (Rajeb et al., 2022). Only a few private universities have used digital equipment sparingly (Hossain et al., 2016; Huda et al., 2009), whereby technologies merely served as teaching aids within physical classrooms. Generally, the incorporation of multimedia in

Bangladeshi educational institutions was considered a luxury (Islam, 2020). There is no significant baseline research prior to COVID-19 era in Bangladeshi HEIs, stemming from the absence teachers' ICT-based pedagogical experiences (Khalid & Al Sire, 2021). These factors, in amalgamation, account for the inadequacy of technological competence among Bangladeshi EFL teachers and learners (Ashraful, 2018).

During the COVID-19, the traditional EFL pedagogy in Bangladeshi universities and schools underwent "dramatic changes and improvisations to the existing technological devices, programs and applications to respond to the new mode of teaching" (Hossain & Rahman, 2023, p. 67). Naturally, a collective lack of preparedness was palpable among all stakeholders as they strive to navigate the crisis-induced "new normal" mode of instruction (Khan et al., 2021). The situation demanded institutional and governmental support, particularly financial provisions and training. Unfortunately, the lack of these severely contributed to the dearth of commitment and motivation among teachers and learners. These resulted in unconducive, inefficient and chaotic classroom environments which impeded the attainment of educational objectives (Rouf & Rashid, 2021).

As for the post-COVID era, the UGC has issued a directive outlining a strategy for HyFlex/blended learning (Karim et al., 2023) and provided free ZOOM accounts to public universities' teachers to facilitate large-scale classes (Karim, 2023). Parallelly, leading private universities have procured domains from Google and employed Google Classroom for educators to disseminate materials and conduct asynchronous sessions (Karim, 2023). Endeavours have also been made to digitise textbook contents (Hossain, 2023), organise tests through Google form as a substitute for conventional evaluation methods, and integrate artificial intelligence tools in the EFL context (Das, 2023). While the momentum of digital resource adoption persists in different areas of education even in the aftermath of the pandemic, the advanced form of technology casts an ominous shadow of usurping the educational spaces by replacing human educators (Das, 2023).

The above scenario of shift to online teaching proved more challenging in Bangladesh compared to their developed counterparts (Saeed, 2020), due to the fact that Bangladesh is one of the most "under-resourced education systems in South Asia" (Palak & Islam, 2016, para. 1). With limited accessibility, availability and utilisation of educational technology (Khan et al., 2012), Bangladesh HEIs are lagging behind HEIs from developed nations in implementing online teaching and learning activities (Dawadi et al., 2020; Uddin, 2020). Bangladesh's experience with online education remains incipient, characterised by deficient internet infrastructure (Rahman et al., 2023), costly internet packages, inadequate technical support and a shortage of devices (Tabassum et al., 2021), resulting in students' difficulties in adapting to this mode of instruction (Dutta & Smita, 2020).

Online education has thrived among educators and learners in the first world nations, gaining wider acceptance owing to its high instructional quality and extensive accessibility (Palvia et al., 2018). Notably, initiatives like formulation of the "National Education Technology Plan" for facilitating the development of online teaching equipment in the U.S. (Thomas,

2016), substantial investments to enhance its expansion and quality in the U.K. (Rahman et al., 2023), and the establishment of "Online Learning Support Fund" in Australia can be observed even before the COVID era (Hall et al., 2020). Conversely, Bangladesh, who has seriously struggled to manage the transition due to resource scarcities of various sorts, therefore, contends that adopting online pedagogy remains impractical, particularly given the grossly insufficient fiscal allocations for education. Consequently, the mental well-being of students and educators is of heightened concern in low-resourced contexts as they encounter greater negative impacts of the pandemic (Christakis & Christakis, 2020).

Theoretical Framework

This research is guided and driven by Technological Pedagogical and Content Knowledge' (TPACK) theoretical model (Mishra & Koehler, 2006), in which technology, pedagogy and content are intricately linked. We believe that TPACK aligns well with the vision of this study and helps formulate its overall design to show how its core concepts are reflected in English teaching practices and how effective those practices and what challenges were involved with the teaching of English. It explains or guides integration of technology (Kurt, 2019) comprehensively and holistically with two other crucial components of teaching-learning.

TPACK has three main components: technological knowledge (TK), pedagogical knowledge (PK) and content knowledge (CK), which teachers can integrate into a learning instruction. As the three components overlap, a complex relationship among these components emerges, and as a result, four additional sub-components reify. They are pedagogical content knowledge (PCK), technological content knowledge (TCK), and pedagogical technological knowledge (TPK) and TPACK (See Figure 1). The seven components together "form an integrated whole, a 'Total PACKage" (Thompson & Mishra, 2007, p. 38).

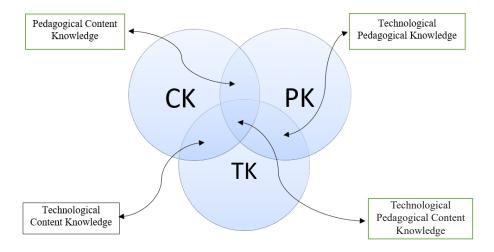


Figure 1. TPACK Framework by Mishra and Koehler (2006, p. 1025). Three primary circles are used to symbolise technological knowledge (TC), pedagogical knowledge (PK), and content knowledge (CK), while the four overlapping sections depict a distinct but integrated form of teacher knowledge.

TPACK is structured for the current empirical study as an all-encompassing lens to recognise and comprehend educators' use of different knowledge domains as it can "transform the conceptualisation and the practice of teacher education, teacher training and teachers' professional development" (Mirsha & Koehler, 2006, p. 1020). By using scholarship and research, it will also offer an understanding that enhances teachers' knowledge and practice (Mirsha & Koehler, 2006) of technology. Hence, a detailed and subtle understanding of it serves as the foundation for the items developed for the research tools. This would result in the authentic delineation of English language teaching practices and their effectiveness.

METHODS

This study adopted a concurrent embedded/nested mixed method study (Creswell, 2007) as the data of this study were collected and processed simultaneously. The quantitative data (questionnaire) was combined with qualitative data (focus group discussion) in the analysis phase to substantiate and lend critical insights into the statistical findings. This allowed a thorough grasp of the issues because it began with the analysis of quantitative data and then followed by the presentation of qualitative research results (Punch, 1998). Furthermore, various phenomena and circumstances were described "to identify characteristics, frequencies, trends and categories" (McCombes, 2022, para. 3) pertaining to online EFL teaching.

Population, Sampling Techniques and Samples

As this study was planned and carried out during the COVID-19 lockdown in Bangladesh, normal research procedures were not feasible. This prompted the researchers to reach out to teachers who were teaching in other universities via email. Since not all universities provided complete details of their English teachers (such as academic background, emails and specialisation) in their official websites, only 18 universities (7 public and 11 private) were identified as suitable for the purpose of this study. A personal email was sent individually to all the 63 teachers teaching in the 18 universities, inviting them to participate in this research. The email included the questionnaire (link to Google Form) and a statement giving the option to withdraw from the research at any time. Fifty (50) teachers who agreed to participate in this study (response rate 79.37%) were unidentifiable, as their university's names, status (public or private) and locations were not included in the questionnaire. The teachers were largely homogeneous in terms of their academic background and included both experienced and early-career teachers.

Out of the 50 teachers, only four teachers volunteered for the online focus group discussion. This allowed the participants more time to express their opinions and experiences. According to Morgan (1996), this small group would enable the researchers to have better control of the dialogues and conversation, as well as ensuring all participants were involved, interested, and contributing meaningfully and equally. This also resonates with Oppenheim's (1992) opinion that "quality, rather than quantity" should be the determining factor in deciding the number of samples (p. 68).

The researchers planned and made the efforts to ensure a larger sample size that would undoubtedly have enhanced the validity and generalisability of the study (Sathian et al., 2010; Burmeister & Aitken, 2012). However, the online classes conducted from 2020 to 2022 in Bangladesh (Netz Bangladesh, 2023) placed significant strain on educators who had been tasked with navigating the complexities of remote teaching, adapting to a completely unfamiliar mode of instruction through sophisticated technologies. Milman (2020, para. 5) aptly observed that these were "not normal teaching and learning conditions" prompting educators to reassess priorities (Milman, 2020; Morin, 2022) to attain the optimal educational objectives. Teachers understandably prioritised core academic responsibilities and declined additional commitments like research participation as they were burdened by "significantly intensified workloads" (Allen et al., 2020, p. 233) and time constraints (Francom et al., 2021; Putri, 2021). Given these challenges, we found agreement with the emphasis on the paramount importance of respecting the voluntary nature of research participation. As Siegle's (2023, para. 3) aptly pointed out, ethical research principles demand the absence of "force, fraud, deceit, duress, overreaching, or other ulterior forms of constraints or coercion" on respondents. Nevertheless, in an effort to increase the sample size, we sent several follow-up emails as reminders to teachers. Unfortunately, no replies were received, leading to the necessity of proceeding with the available participants.

Research Instruments

Two research instruments were used in this study:

- 1. Questionnaire (quantitative data) that also included four open-ended items (OEI) (qualitative data).
- 2. Focused group discussion (FGD) (qualitative data) to answer the research questions.

Questionnaire and OEI

The questionnaire contained three sections (Sections A, B and C) and had 34 items in total, as well as four OEIs. Items and constructs for the questionnaire and OEI were developed meticulously from the core concepts and governing principles of TPACK theoretical framework (Mishra & Kolehler, 2006) as it proposed "to represent teachers' unique expertise for technology integration" (Koh et al., 2012, p. 794) and emphasised how this led to "intelligent pedagogical uses of technology" (Koehler et al., 2007, p. 741). With a view to understanding the scope of teachers' technological knowhow, therefore, the abstract theoretical assumptions of TPACK are reified into small but tangible constituents that support these assumptions. For example, student-centred interactions in pairs and small groups to develop language proficiency were derived from McDonough (2004). While most of the questionnaire items were derived from TPACK, literature was also used in the development of a few items (Table 1). Incorporating items informed by empirical evidence on related topics offers participants the context. This also helps them understand the relevance of the questionnaire (Ehler et al., 2021), thereby eliciting more meaningful responses. Familiar concepts and terminology also promote participants' engagement and facilitate comprehension (Keselman et al., 2006; Qiu & Lo, 2017).

The finalised items were validated by a Bangladeshi and a Malaysian expert in educational technology. They agreed that all the items were relevant to the overall research objectives of the study and were also satisfied with the face, content, and construct validities of the instruments. However, both the experts pointed out some stylistic problems in the questionnaire. Changes were made to item number 5 of the practice construct and the title of the management construct. "Digital/virtual groups" was modified as Social Media "group/s" and the term "manageability" was substituted with "managing" to align with the suggested refinements.

Table 1. Items for the construct "Managing Online Classes and Classroom Activities"

Items number	Source/Basis
1	Northrup-Snyder et al. (2020)
2	Lazarus (2019)
3 and 4	Chocholatá and Babičová (2021)

(Continued on next page)

Table 1. (Continued)

Items number	Source/Basis
5	Johnson (2015)
Items number	Source/Basis
6	Braun (2017)
7 and 8	Brinton et al. (2022)
9	Hartshorn & McMurry (2020)
10	Gao & Zhang (2020)

Table 2. Items for the construct "Practices that Reflect Teachers' Technological Knowledge"

Item numbers	Source/Basis
1, 2, 3, 5, 6, 9, 10, 11, 12, 13	TPACK Ribeiro (2021)
7	Ying et al. (2021)
14	Kawinkoonlasate (2020)
15	Alamgir (2020)

Table 3. Items for the construct "Effective Use of Teachers' Technological Knowledge"

Item Numbers	Basis/Source
1, 2, 3, 4, 6, 7, 8, 9	TPACK
5	Manfredo (2023)
10	Read et al. (2022)

The first construct comprised 10 items (Cronbach alpha score of 0.854) that measured teachers' manageability of different TPACK components/classroom activities using a 5-level Likert scale from "Not manageable at all" to "Easily manageable". The second construct, which measured teachers technological knowledge (TK) and comprised 14 items (Cronbach alpha score of 7.11), required the teachers to rate based on a five-point Likert scale from "Never" to "Most often". The last construct (Cronbach alpha score of 0.896) had 10 items that examined the effectiveness of teachers' practices using a five-level Likert scale from "Not effectively at all" to "Most effectively".

To enrich the qualitative data with personal views and experiences, four OEIs were appended at the end of the questionnaire survey:

- 1. Briefly describe the classroom activities you conducted in your online teaching using your knowledge of the technology and your pedagogical knowledge.
- 2. Were you able to deliver the content knowledge (knowledge of English language, literature, linguistics and ELT) of your subject in the online teaching

- environment? How did you deliver the content knowledge of your subject in the online teaching environment?
- 3. Briefly describe how effective were the classroom activities you conducted in your online teaching using your knowledge of the technology and your pedagogical knowledge.
- 4. Were you able to deliver the content knowledge (knowledge of English language, literature, linguistics and ELT) of your subject effectively in the online teaching environment? How effectively did you deliver the content knowledge of your subject in the online teaching environment?

The core of all these inquiries is rooted in and centres around the intricate dimensions of TK, PK and CK that constitute the foundations of the TPACK framework. These questions investigate the complex interplay of these knowledge components concerning the use of technology in online teaching in Bangladeshi universities and its influence on pedagogical approaches across different EFL content areas.

Focus Group Discussion (FGD)

A video conferencing (in the form of Zoom Cloud Meeting) was arranged with all the four participants, which lasted approximately two hours. Previous studies have shown that video conferencing facilitates the efficient process of data collection of FGD (Almujlli et al., 2022; Sedgwick & Spiers, 2009). At the onset of the FGD, permission was obtained from all participants before recording the session to adhere to legal and ethical requirements regarding personal data processing (Caride, 2021). Prior to the data collection stage, participants were informed about the aims of the research, the procedures to be followed and their voluntary participation rights, with assurance of anonymity. All data that could reveal their identities were completely removed to protect the participants' confidentiality which, McKibbin et al. (2021) assert, increases the validity of data. Participants were given the freedom to withdraw at any time, and no undue pressure was exerted on them in case they refused to answer any question.

Participants in qualitative data collection methods may experience anxiety if they are not comfortable with others or the researchers (Gay et al., 2012), potentially leading to filtered information and thus jeopardising the trustworthiness of all efforts. To mitigate this risk, the researchers arranged an online get-to-know session in Zoom Cloud Meeting prior to the actual FGD with the participants to encourage open expression. Building mutual trust and rapport through regular communication is essential for effective communication (Molden, 2011), as it helps "get as close as possible to participants' understanding of a phenomenon" (Merriam & Tisdell, 2016, p. 246) and establish credibility of qualitative findings. The following two key questions were posed during the session. Additional and follow-up questions were asked when the researchers needed clarification, further explanations and examples:

- 1. What were your practices of online teaching of English during the COVID -19 pandemic? In this respect, did you face any problems? How did you overcome those problems?
- 2. Based on your experiences, were the OTL you planned and implemented effective? If yes, how effective was it? If no, why were they not effective? Explain with examples from your practices.

The FGD were transcribed verbatim, which came to about 4,800 words. These were then analysed according to activity and situation codes (Bogdan & Biklen, 2007), explained in the following section.

Data Analysis

Quantitative data analysis

For quantitative data, descriptive statistics were used in analysing the data, i.e., frequencies, percentages, mean scores and standard deviations. Here, the mean scores serve as indicators of the central tendencies of participants' practices regarding the management of classroom activities and the practices and effectiveness of Bangladeshi EFL teachers' use of technology. As for frequencies, they provide insights into the occurrence patterns and trends of those variables, revealing how often their behaviors regarding the utilization of technology occur (Research Optimus, 2024). For the purpose of presenting data in a more meaningful manner, responses categorised as "often" and "most often" have been merged "often", while responses reflecting "never" and "hardly/rarely" have been combined to represent the lower end of the spectrum (Kabilan et al., 2023).

Qualitative data analysis

As for qualitative data, the responses to the OEIs were compiled, while the recorded FGD was transcribed verbatim manually. The qualitative data were identified using a coding system. For example, 'OET1' refers to data obtained from Teacher 1's responses to open-ended items and, 'FGDT2' refers to data obtained from Teacher 2 in the focused group discussion. The collected data were analysed using 'Coding Strategies' (Bogdan & Biklen, 2007), which allowed the descriptive data to be arranged in a way that allowed the information pertaining to a certain topic to be physically segregated from other information. Two types of codes: *situation codes* and *activity codes* served as the foundation for the categorisation of data in this study.

Activity codes were units of data that represent teachers' routine behaviour or professional practices of OTL in classrooms using their technological and pedagogical knowledge. The situation codes explained how the teachers defined and viewed the effectiveness of OTL in the classroom using their technological and pedagogical knowledge. These were framed to identify teachers' views (e.g., positive vs. negative, and to what extent) of the new mode of teaching. These codes were extracted from OEIs and FGD. The items in OEIs and FGD

assisted the researchers in comprehending and grouping the data into distinct ideas that resulted in the activity and situation codes. All qualitative data were processed in this way using schema as in Table 2. It is necessary to state that the major purpose of the qualitative data was to supplement and interpret the quantitative data.

Table 4. Sample schema to code, arrange and organise data (FGD) according to the themes

No.	Example excerpts	Analyses (note/comment)	Themes
1	FGDT3: And about presentation, I have this live presentation, I mean on online like this in Zoom cloud meeting. I asked them questions. That served for their speaking. [activity code]	Routine behaviour or professional practices: The teacher frequently organizes live presentations in Zoom. During these sessions, s/he asks the students questions that encourage/facilitate their competence in speaking skill.	Facilitating Speaking Skills (RQ1)
2	OET6: The classroom activities were quite effective by using Zoom Cloud Meeting and Google Classroom mainly. The implementation of various teaching and learning activities like online lectures, demonstrations, sharing PowerPoint presentation,giving assignments and feedbacks were quite successful. But monitoring too many students during class tests and various tasks were a bit difficult through online class. [situation code]	The teacher acknowledges the effectiveness of online teaching platforms in facilitating a range of teaching and learning activities. However, overseeing online learning sessions and administering online tests proved challenging.	Efficacy and of Online Challenges Teaching (RQ2)

FINDINGS

Given the descriptive analysis approach employed in this research, it is essential to utilise, among others, statistical measures like frequency and percentage. These metrics offer valuable insights into the trends and proportions of various variables, providing a comprehensive understanding of the data (Priya et al., 2022).

Practices of OTL of English

The practices encompassed these elements: a) Management of online classes and classroom activities, b) Practices that reflect teachers' technological knowledge, and c) Effectiveness of practices that reflect teachers' technological knowledge.

Table 5 shows that the teachers struggle in managing these four online teaching activities:

- 1. Arrangement of free practices (M = 2.94).
- 2. Arrangement of controlled practices (M = 2.84).

- 3. Organisation of group work (M = 2.76).
- 4. Organisation of pair work (M = 2.62).
- 5. Monitoring students' learning activities (M = 2.56).

Table 5. Managing online classes and classroom activities

Items	Not manageable (1)		Hardly manageable (2)		Moderately manageable (3)		Manageable (4)		Easily manageable (5)		Mean (M)	SD
	f	%	f	%	f	%	f	%	f	%		
Number of online classes	-	-	2	4	17	34	21	42	10	20	3.78	0.82
Duration of online classes	-	-	3	6	19	38	21	42	7	14	3.64	0.80
Providing feedback	1	2	8	16	13	26	25	50	3	6	3.42	0.91
Organisation of students' presentation	2	4	8	16	17	34	18	36	5	10	3.32	0.99
Organisation whole class discussion	3	6	16	32	11	22	17	34	3	6	3.02	1.08
Arrangement of free practice	1	2	15	30	21	42	12	24	1	2	2.94	0.84
Arrangement of controlled practice	3	6	13	26	24	48	9	18	1	2	2.84	0.87
Organisation of group work	6	12	16	32	13	26	14	28	1	2	2.76	1.06
Organisation of pair work	6	12	19	38	13	26	12	24	-	-	2.62	0.99
Monitoring students' learning activities	6	12	20	40	17	34	4	8	3	6	2.56	1.01

The difficulties with free practices are due to students' lack of motivation (FGDP2) and their lack of knowledge and experience in using information technology, as well as access to technology (FGDP4). As for controlled practice, the same issues were highlighted by all the respondents in the FGDs. For example,

The main challenge in the arrangement of controlled practice in the online classes seem [sic] to be the difficulty in maintaining time. Sometimes the tasks may take much more time to be resolved than thought because of a number of

issues including incompetence in using technology, distractions, lack of focus, procrastination and so on. As a result the tasks are not completed properly and are likely to be less effective.

(FGDP2)

Due to a weaker internet network, many would not turn the video mode on. When the learners muted themselves or remained unvideoed [sic], the teachers had no options to conduct a controlled practice session.

(FGDP3)

Teachers' lack of knowledge and skills in managing breakout rooms prevented many of them from utilising group work activities (mean score = 2.76; f = 22; 44%). This prevented FGDP3 from implementing group learning activities that engage learners in meaningful collaborative tasks. FDG4 claims "background noise and hassle of monitoring", "students' casual attitude towards online class" and "lagging internet" have affected the use of group work activities.

The arrangement of pair work (mean = 2.62; SD = 0.99; f = 25; 50%) was even more challenging for teachers. These teachers explicate,

The problems I encountered in organizing pair works in online classes are: Selecting compatible pairs. Students often vary in their learning approaches, in their capability to receive and deliver. So, selecting a compatible pair is always very challenging.

(FGDP2)

I divided classes with breakout room facilities but...when I entered one room I missed to oversee other rooms. It couldn't be as good as onsite classes where I can keep them under my observation, comment on their interactions or help when they struggled.

(FGDP1)

Meanwhile, the problem of monitoring students' learning activities (mean = 2.56) was attributed to many reasons. They are: (i) paucity of proper rubrics (FGDT2); (ii) students' casual attitudes towards OTL (FGDT4, FGDP3); (iii) inability to observe students' facial expressions (OER46); (iv) students attending classes from different places; (v) use of dissimilar gadgets (FDGT3); (vi) poor internet coverage (FGDT3); (vii) use of devices with small screens; and (viii) switching cameras off out of religious sentiments (FGDT4). These left teachers with no choice but to communicate with "dark screens and immobile foreheads" (FGDT4) and "ghost students" (FGDT3).

Table 6 presents a picture of the use of different types, features and modes of the technological devices and software by EFL teachers. Most teachers use the Zoom application often (mean = 4.22; f = 40; 80%) for teaching and learning purposes (Table 4) because it is "effective, easy to use and student friendly" (FGDT4) and "helpful" (FGDT4). Nevertheless, FGDT4 needed some time to "learn its multifaceted functions" through "emerged necessities and

errors". However, qualitative data indicates that there are teachers who utilised more than one application. They have used "various kinds of platforms" (OER31) such as Zoom and Google Classroom (FGDT2) and participated in "group discussions with students informally" (OER18) which helped "create a real vibe of classroom online" (OER31).

Table 6. Practices that reflect teachers' technological knowledge

Items	Never (1)		Never (1) Rarely/ Hardly (2)			Sometimes (3)		Often (4)		ost n (5)	Mean	SD
	f	%	f	%	f	%	F	%	f	%	_	
Laptop/ Desktop	-	-	-	-	3	6	5	10	42	84	4.78	0.55
Zoom	6	12	3	6	1	2	4	8	36	72	4.22	1.43
File/ Document sharing options	3	6	3	6	10	20	12	24	22	44	3.94	1.20
PowerPoint slides	2	4	4	8	11	22	12	24	21	42	3.92	1.16
Social media "group/s"	6	12	4	8	19	38	5	10	16	32	3.42	1.34
Synchronous mode	11	22	9	18	2	4	7	14	21	42	3.36	1.68
Social networking sites	4	8	7	14	20	40	10	20	9	18	3.26	1.16
Smartphone	6	12	7	14	13	26	14	28	10	20	3.3	1.28
Google Classroom	14	28	3	6	9	18	8	16	16	32	3.18	1.63
Annotation option for correction	13	26	12	24	12	24	13	26	-	-	2.50	1.15
Asynchronous mode	17	34	13	26	8	16	6	12	6	12	2.42	1.39
Breakout rooms	20	40	10	20	9	18	9	18	2	4	2.26	1.28
Microsoft Teams	31	62	2	4	2	4	5	10	10	20	2.22	1.69
Tablet	39	78	2	4	4	8	4	8	1	2	1.52	1.07

Social media groups (mean = 3.42; SD = 1.34; f = 19; 38%) were used "for circulating important academic notices", to share study materials (FGDT1, FGDT4), "to circulate

updates regarding classes" (FGDT2) to "important documents with the students" (FGDT2, OER50) and to submit assignments (FGDT1). OER50, who created a separate group for each course, asserted, "Students recorded their video presentation and uploaded to the respective course group on Facebook." FGDT2 considers reaching out to students through these groups conveniently since most of the students spend considerable amounts of time on social media.

Asynchronous mode had a low mean score of 2.42 (SD = 1.39) indicating that most teachers (f = 30; 60%) (rarely to sometimes) use this mode. Nevertheless, the teachers who utilised asynchronous mode (f = 12; 40%) used it meaningfully so that their learners were able "to view it again and understand it at their own pace" (OER15) Although FGDT1 supplied students with "some pre-recorded materials related to particular lectures", those who hailed from peripheral areas found it hard to follow the "asynchronous mode of pedagogical activities" (FGDT1). FGDT3 details the challenges of getting the students involved,

My students lacked self-discipline and were not motivated; they were most likely to shirk duties in this format; they usually procrastinate and do not turn in their assignments until the last minute. It is only possible to educate them with their peers in my presence.

(FGDT3)

With a low mean score of 2.26 (SD = 1.28; f = 30; 60%), not many teachers used breakout rooms as it was not suitable for writing activities (FDGT1). Also, splitting classes into groups for worthwhile tasks takes time (FGDT3). It was also an "impersonal chat room" that was "counterproductive" (FDGT2), resulting in students seeking ways to avoid participation in these forums due to the awkwardness they experienced (FDGT3).

Effectiveness of OTL of English

Table 7 depicts teachers' technological knowledge in using different types, features and modes of the technological devices and software by EFL teachers. It shows teachers' viewpoints of the efficacy of various technological features and, where necessary, explains what prevented them from achieving the anticipated outcomes. For example, the effective use of online applications (mean = 4.02; SD = 0.95; f = 35; 70%) such as Zoom Cloud Meeting and Google Classroom (OER6) and Microsoft Teams (OER22). These tools "turned out to be quite helpful" and "students felt comfortable in it" (FGDT3). Also, it is "easy to use and student friendly" (FGDT4).

Table 7. Effective use of teachers' technological knowledge

Items	Not effectively at all (1)		Slightly effectively (2)		Moderately effectively (3)		Effectively (4)		Most Effectively (5)		Missing Data (6)		Mean	SD
	\overline{f}	%	f	%	f	%	f	%	f	%	f	%	-	
Electronic device	-	-	1	2	11	22	13	26	25	50	-	-	4.24	0.87
PowerPoint slides	-	-	8	4	7	14	14	28	25	50	-	-	4.2	0.97
File/ Document sharing options	1	2	3	6	9	18	16	32	21	42	-	-	4.06	1.09
Online application	1	2	1	2	12	24	17	34	18	36	1	2	4.02	0.95
Social networking sites	2	4	2	4	10	20	20	40	16	32	-	-	3.92	1.03
Social media "group/s"	3	6	3	6	14	28	17	34	13	26	-	-	3.68	1.12
Synchronous (live/real- time) mode	4	8	10	20	8	16	13	26	15	30	-	-	3.50	1.33
Annotation option for correction	8	16	9	18	14	28	10	20	8	16	1	2	3.08	1.37
Asynchronous mode	12	24	9	18	6	12	14	28	9	18	-	-	2.98	1.48
Breakout rooms	10	20	12	24	17	34	6	12	4	8	1	2	2.70	1.27

Using social media "group/s" (mean = 3.68; SD = 1.12; f = 50; 60%) gave students "convenient access" to educational resources (FGDT4) "instantly" and improved "teacherstudent dynamics" (FGDT1). Teachers were able to use these "effectively and satisfactorily" and found these to be "very much useful" (FGDT4). These factors led FGDT4 to conclude that "Their utility and effectiveness can never be underestimated." However, teachers were "often pestered" (FGDT3) through these forums which made students "overly dependent", "caused eye fatigue" (FGDT1) and significantly increased responsibilities of attending every student's correspondence (FGDT3). This led FGDT1 to "restrict[ed] group messaging to group admins only".

With a low mean score of 3.08 (SD = 1.37; f = 14; 28%), not many teachers used the annotation option as it was not "fulfilling to annotate tasks and explain to them different aspects" (FGDT3). This teacher had "to rectify and clarify" too many aspects which made the process "tedious and sluggish" and even "herculean". This web-based technique required

"continuous internet support" which was a "costly" affair (FGDT4). Therefore, it was only "worthwhile to attempt it occasionally" (FGDT3).

Using asynchronous mode (mean = 2.98; SD = 1.48; *f* = 21; 42%) for OTL was "inappropriate for peer-centered learning", did not prompt "stimulating discussion" and affected "class attendance for which marks are allocated" (FGDT1). Furthermore, the use of this mode "backfired" as some students "stopped attending classes" (FGDR2). Such "learning in solitude may only be effective for a small percentage of students" as it "eliminates the real human atmosphere in classroom" (FGDT4). Therefore, the teachers deemed it "ineffectual" (FGDT1). Still, it could help shy students "absorb and reflect on class contents better" (FGDT1). In fact, OER15 found it "to be very useful and effective technique" but such affirmation is rare.

Meanwhile, several problems hampered many of the teachers from efficiently using breakout rooms (mean = 2.70; SD = 1.27; f = 22; 44%). FGDT4 expressed it was difficult to maintain students' concentration and were not able to be present in every breakout room to monitor students. FDGT2 found that the students were "unprepared" and "bewildered about the assigned task" to be done in these rooms. FGDT1 affirmed that it was not "useful" and was only marginally helpful in "speaking class" and "discussion", while FGDT2 emphasised that utilising it was a fine idea, but it did not help improve student's skills and knowledge in any way. Basically, data reveals that the teachers could not reap the benefits afforded by breakout rooms as they did not have the required knowledge and skills and no training were given in this respect (FGDT4).

DISCUSSION

Practices of Online Teaching of English during COVID-19

Teachers display a certain level of understanding and practices of different pedagogical strategies in OTL of English. For example, they create their own way of providing feedback, monitor students' tasks and assignments, organise student-centered and collaborate and work in teams. They manage to align technological functionalities for certain teaching strategies such as breakout rooms for interactivity, annotation feature for giving feedback and asynchronous mode for rewatching lectures. These aspects of technology based on distinct aspects of EFL pedagogy (TPK) are chosen not only because they were readily accessible but also for their suitability and efficacy in relation to the educational goals (Benson & Ward, 2013). However, findings show that, despite some degree of knowledge and planned approach, their meaningful learning outcomes have not been achieved. Hence, teachers should develop their pedagogies and practice them not only to "adjust themselves for the technology-oriented society and classrooms" (Poonpon, 2021, p. 201), but also facilitate students to "learn in contexts that honor the rich connections between technology, the subject matter (content), and the means of teaching it (the pedagogy)" (Mishra & Koehler, 2006, p. 1047).

University teachers in this study tend to deliver lectures during which the students are contended to remain silent and as passive listeners during the teacher-fronted classroom. This is an undesirable practice since language learning using technologies requires students to "adopt an active role in the language acquisition process" (Cabrera-Solano et al., 2020, p. 253). This active role refers to intensity and quality of students' involvement in initiating and participating in learning activities—behaviourally, emotionally and cognitively (Fredricks et al., 2004). These, in conglomeration, allow students to take full responsibilities of their learning process and outcomes, which are facilitated by 'students learning by doing' and not so much by "overt lecturing and traditional teaching" as the teachers in this study display (Mishra & Koehler, 2006, p. 1035).

Effectiveness of Online English Teaching

Teachers' knowledge in this study related to technology (TK, TPK and TCK) was insufficient compared to other knowledge domains (CK and PK). It has been highlighted, however, that teachers neither have training nor any exposure (before the pandemic) to the unconventional instructional paradigm. According to Mishra and Koehler (2006), in ICT-driven teaching all teachers need is training on how to use technology so that they acquire "deep understanding" (Brand, 1997 as cited in Mishra & Koehler, 2006, p. 1031) that can help educators use technology effectively for pedagogical purposes. But there are hardly any opportunities for teachers to change themselves. They are plainly struggling and harmonising content knowledge (CK) and/or pedagogical principles (PK) with TK hardly seems a seamless process. The efficiency of the teacher's endeavour, therefore, is diminished by the discomfort teachers encountered with the tech-based educational procedures. However, one aspect (social media group) is an exception in this case.

Teachers show a working knowledge that SNS can be strategised academically, an idea at the heart of TPK. Teachers discern technologies' strong points such as their extensive and convenient use and they took advantage of them in academic space. Studies indicate that CK can be effectively transmitted only if they carefully select the best technology to support their instruction (Kafyulilo, 2014). This is reflected particularly in the case of disseminating information, sharing materials course contents (TCK) through its "group" affordance which allows teachers and students to access real English learning resources (Huang et al., 2021). Teachers must have selected these resources investing their subject-matter expertise (CK) before distributing them to groups (TK) and thus they (TCK) overlap. They attempt to trigger students' interest and motivate them to explore the relevant English learning materials more thoroughly (Zhang, 2022). Providing students access to relevant resources is something that can keep students focused and make teaching-learning effective.

This study shows that problems from students, whether deliberate or inadvertent, have a direct bearing on OTL's failure to yield optimal results. Some of the most prevalent stumbling blocks in OTL include learners' lack of ICT navigational knowhow, lack of motivation, seriousness, etc. Other factors include distractedness, procrastination and disinclination towards engagement. Individual attributes (e.g., preference for passive learning) and

situational factors (unfamiliar educational setting, background noise, network disruption, inexperience, etc.) have impacts on learning motivation (Hartnett et al., 2011) and cause them to disoblige. All these interfered with student engagement whether it is behavioural, emotional and cognitive (Fredricks et al., 2004) which are crucial for an effective and meaningful teaching-learning process. Students' motivation and their involvement with the course material is strongly correlated (Dörnyei, 2020). Lack of these phenomena, according to Sener et al. (2020), are the major factors that adversely influence teachers' instructional experiences. Students' lack of motivation and its consequences significantly affects teachers' performance (Mese & Sevilen, 2021) and impairs educational objectives they aim to attain. The OTL classroom ambience is crucial in that it can benefit the students and thus make teachers' efforts successful. However, certain grievous drawbacks undermine this desirable mood and spirit of OTL in many ways. Due to constraints like high cost and unstable internet, electricity supply, students' invisibility, difficulty of finding compatible pairs for teamwork etc. teachers can barely maintain a "conducive classroom climate" (Singh & Kasim, 2019, p. 26) which reduces the efficacy of all endeavours. Also responsible for the same is teachers' struggles in using recorded mode of class, which also leads students to evade attending classes and monitoring all students simultaneously in different rooms. Gupta (2021), in this regard, stresses that in its core, the online teaching-learning lacks a genuine learning atmosphere which is "limited to comments and emails and usually involves one interaction at a time" (para. 3) and therefore, can never replace face-to-face classes.

Relevance of Classroom Management Knowledge (CMK) to TPACK

Taş and Minaz (2021, p. 10) conceptualise and argue classroom management as a basic concept that covers "behavioural and instructional management" and therefore, is an important knowledge that teachers should possess to support students' learning. This knowledge, which is termed as Classroom Management Knowledge (CMK), encompasses a range of skills and strategies that teachers use to create a conducive learning environment (Diniatulhaq et al., 2020; Haydon et al, 2021). CMK entails various factors, including teachers' own understanding and mindfulness of the multicultural classroom, physical and social contexts (Postholm, 2013) and ways of setting rules, routines and maintaining a positive classroom climate (Haydon et al., 2021).

A comprehensive understanding of managing a classroom entails a profound understanding of teachers' knowledge bases (Schemp, 2003) as it can help them transform their CK into effective pedagogical strategies, thereby developing advanced professional expertise (Brant, 2006). However, the most valued CMK is derived from personal practice, knowledge and hands-on experiences gained from their teacher education programs (Ayebo & Assuah, 2017; Schemp, 2003). These help teachers understand the changes in student behaviour and the intricacies of teacher-student dynamics, leading to the development of effective classroom management skills (Ersözlü & Çayci, 2016) through a blend of theoretical knowledge and practical/classroom experience.

In an effort to provide insights about teachers' CMK and competence, Ayebo and Assuah (2017) conducted a study based on Johnson's (2004) framework of knowledge bases for classroom management, revealing that rule-based classroom management predominates among teachers. Even teachers who favour other management ideologies like 'nurturance' or 'dominance' indicating the practice of friendly relationships between teachers and students and authority of teachers respectively, evince strong support for rule-based methodologies. Nonetheless, this support does not negate the significance of teachers' CMK base, as noted by Garrahy et al. (2005), which highlights the pivotal role of establishing class routines, cultivating class expectations, ensuring teacher consistency and fostering student engagement.

However, it is argued that contextualising teachers' CMK within the broader framework of their PK is essential (Ayebo & Assuah, 2017). Studies show that PK, encompassing classroom management alongside other elements, exerts a more substantial influence on student achievement compared to content knowledge (Guerriero, n.d.; Ulferts, 2019; Wong & Rosemary, 2001). This is corroborated by König et al. (2011) who suggest that PK involves managing classrooms by motivating students and effectively addressing the needs of heterogeneous learning groups, a concept referred to as "adaptivity" (p. 190). However, based on the findings of this study, we argue and postulate that CMK should be recognised as an independent tenet or component that functions in tandem with the other components of TPACK. This is crucial given CMK's impact on the aforementioned key factors influencing students' learning accomplishments, necessitating its inclusion in the TPACK framework alongside the existing constituents. Particularly in light of the changing classroom dynamics driven by advanced technology, teachers must possess robust CMK and continuously refine their problem-solving skills. They must also design pedagogical strategies to cater to individual student's needs, thereby orchestrating productive learning experiences through the judicious use of available resources within the classroom environment (Jelep, 2008, as cited in Çar et al., 2022).

Hew and Brush (2007) postulate that one of the biggest obstacles to technology integration are that teachers do not have technology-related CMK and skills. Thus, it is clear as to why Tosuntaş et al. (2019) assert that the use of technology in teaching "requires teachers to change their pedagogy and classroom management knowledge" (p. 446). This also reflects Yurdakul et al.'s, (2012) earlier attempt to build a TPACK scale that identified the implementation of effective classroom management in the teaching and learning process in which technology is used. These are compelling indications that TK and CMK need each other, and that, in tandem, these two elements would complement a teacher to plan, manage and carry out an effective OTL.

Beyond the mere transmission of CK, the application of effective CMK significantly influences s tudents' a ttainment of s ubject m atter p roficiency (S hulman, 19 86). He nce, it is recommended that teacher education initiatives prioritise the cultivation of CMK during both pre-service and initial teaching phases (See, 2014). We concur with scholarly investigations that regard CMK as a distinct form of CK (Rickman & Hollowell, 1981;

Stough, 2015; Wesley & Vocke, 1992). According to Sueb (2013), teachers' development of CMK is instrumental in fostering improved classroom discipline, a factor identified by Ningsih and Sari (2022) as crucial for enhancing students' acquisition of subject matter knowledge and promoting better student learning outcomes in OTL. Additionally, Buzu and Beschieru (2021) suggest that the effective dissemination of course content via online platforms can mitigate disruptions, particularly when instructors exhibit proficiency in classroom management. Therefore, in OTL, teachers need both content knowledge (including pedagogical knowledge) and effective classroom management to facilitate meaningful learning opportunities and faster their learning (König et al., 2021).

IMPLICATIONS AND CONCLUSION

As far as this study is concerned, we can arrive at three distinct conclusions. First, this study depicts a strong teacher-dominated, lecture-based OTL, when a student-oriented approach could have been far more effective. In facilitating this, TDPs should be afforded for teachers with an emphasis on using technology to improve students' learning through engagement is also essential. The TPD could be based on the "learning technology by design" that can assist them in creating, organising and managing instructions in ways that will afford "students the opportunity to transcend the passive learner role and take control of their learning" (Mishra & Koehler, 2006, p. 1035). However, on the bright side, the COVID-19 ordeal has led to the emergence of unique opportunities to understand the potential of OTL (Moorhouse & Kohnke, 2021). Some academics have demonstrated their practical understanding of non-academic and informal technology and their 'creative repurposing' for pedagogical purposes for the benefits of students' learning.

Second, it has been claimed that the "context" factor in TPACK has led to the fuzziness around the framework due to the lack of systematic explanation of it (Kimmons, 2015). Kelly (2010) highlights the "virtual absence of the fourth element of the TPACK model – context – in conceptual analyses and applications of TPACK as well as in research studies" (p. 3887). None of the publications that use the TPACK framework has described, clarified, or operationalised context (Kelly, 2010). Researchers have been found to approach context in several ways and there are significant variations in its meaning when it is included in the discussions regarding TPACK (Porras-Hernandez & Salinas-Amescua, 2013). However, experts believe that it is crucial to be specific about the meaning of context since educational researchers "have developed a folk definition of context" which they (educational researchers) think they "understand but truly do not use coherently or cohesively" (Turner & Meyer, 2000, p. 83). This current study helps pinpoint or reify exactly what is indeed meant by context, which has so far been rather vague in literature.

However, subjecting the empirical evidence of this study to the analytical lens of the TPACK and scrutinising them with this framework help unveil the components that contribute to the construction of XK. According to Kelly (2008a; 2008b), the concept of context encompasses tenets like size and suitability of classrooms for learning, furniture style

and placement, the availability of other physical resources in the classroom and parity of access to technology. Alongside their diverse origins/backgrounds (linguistic, ethnic, socioeconomic, etc.) and any potential consequences of differential treatment arising therefrom, it also considers students' physical, cognitive, social, psychological, and experiential attributes. XK extends to denote the traits of teachers, like their knowledge, aptitudes and temperaments, as well as the traits of institutions, such as their guiding ideologies and the overt and covert expectations held by administrators, parents, teachers and students. To add to this, Mishra (2019, p. 76) articulates that XK is "everything from a teacher's awareness of available technologies, to the teacher's knowledge of the school, district, state, or national policies they operate within". The cumulative impact of these components in a specific classroom, comprising both the students and teachers, collectively constitutes the intricate concept of context (Kelly, 2008a). But what exactly does this XK entail comprehensively? More studies, in different contexts and settings, and geography are needed to classify the kind of XK that practitioners and researchers should contend with in terms of planning, implementing, and researching OTL.

Third, although Mishra and Koehler have published a series of articles on TPACK since their seminal work in 2006, including Mishra's (2019) contribution that integrates the context (XK) domain into the overall framework, all aspects of technology-enhanced teaching are not adequately covered and addressed, nonetheless. While this study's empirical evidence reaffirms the existence of other bodies of knowledge, it &early beckons an ew field of inquiry—a dimension that can be termed as Classroom Management Knowledge (CMK). Although CMK is predominantly nestled within Pedagogical Knowledge (PK), parts of this knowledge base cover other two dimensions of the framework (TK and CK) and aims to address how teachers organise/manage EFL classroom activities and exercises are in OTL environment while also ensuring that they are properly coordinated and synchronised with the appropriate technological features for optimal learning outcomes.

CMK encompasses instructors' competence in devising plans for time management, formulating and enforcing guidelines to deal with the complexities of students' resistance, distraction and procrastination for teamwork and forging compatible student pairs; it comprises their aptitude for crafting tactics for promoting student engagement in EFL activities collaborative tasks, free and controlled practice, providing feedback and organising students' presentations in the best possible way. Additionally, resolving technical issues (to effectively navigate breakout rooms, power outage, internet issues, background noise, misuse of recorded class) and fostering a conducive learning environment also falls within the purview of this domain. The significance of effective CMK in OTL is acknowledged by this proposed inclusion, which goes beyond a mere decorative and gratuitous addition. Recognising CMK as an integral component of enhanced/upgraded TPACK framework, can help form a more comprehensive perspective on the intricate and multifaceted nature of effective OTL, in which different knowledge domains are expected to coherently integrate with the artistry of classroom management to create a harmonious and fruitful educational experience. Hence, we suggest an improvised version of TPACK, i.e., TPACK + CMK with the inclusion of CMK especially for developing countries like Bangladesh (see Figure 2).

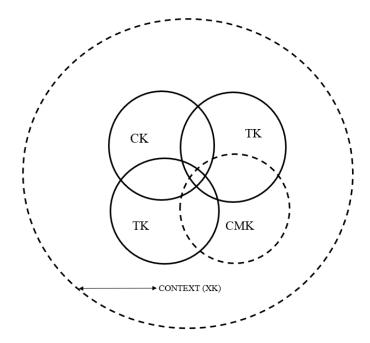


Figure 2: Revised TPACK + CMK

However, we suspect certain elements of XK and CMK obtained in this study may not appear or exist in other countries, especially the ones that are well established in terms of OTL. More studies are needed to explore this, including our claims for the need of a revised TPACK + CMK framework, which may or may not be applicable in different contexts and settings. Further research, debates, and discussions on this revised TPACK + CMK should give us clearer pictures and confirm (or not) the need for this revised version of TPACK. Also, a study that involves a larger sample size should be carried out, considering the current study had a small sample size. However, for the time being, it seems to adequately explain the OTL situation in Bangladesh, and perhaps in some other developing countries. If indeed the framework is relevant for developing countries, for instance, then, it would have huge implications on how OTL should be planned, implemented and assessed.

LIMITATIONS OF THE STUDY

The current study has its own limitations, which were beyond the control of the researchers. A larger number of samples for the survey and FGD would have provided more meaningful data and more and deeper insights into and better understanding of the issues under investigation. Unfortunately, the small sample sizes are due to teachers' reluctance to participate in this study as in FGDs as they had to talk about the challenges of teaching

EFL online, which are negative aspects of teaching. Teachers were apprehensive of the confidentiality of responses, potential impact on their professional reputation coupled with lack of incentive for career advancement and heavy academic and administrative workload during the crisis period deterred them from participation in the FGDs.

However, future research endeavours need to employ a larger sample size to enhance generalisability of findings, the significance of the conclusions drawn, as well as to extend the practical implications of the research findings.

DATA AVAILABILITY

The datasets generated during the current study are not publicly available as the authors do not wish to share the data as this may breach participant confidentiality but are available from the corresponding author on reasonable request.

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