

From Crises to Opportunities in Higher Education in Bangladesh

Akhter Jahan¹, Rubina Khan², Mohammad Moninoor Roshid³
Md. Zulfeqar Haider⁴, Shaila Sultana⁵, Mian Md. Naushaad Kabir⁶

Abstract: Online teaching has become part and parcel of higher education as the pandemic caused by COVID-19 has made us go digital. Most of the higher education institutions in Bangladesh suddenly shifted from face-to-face teaching to online teaching in June 2020. Since all the educational institutions got back to face to face classes from March 2022, it is time to reflect on those virtual experiences to identify what teachers have achieved and how learners have benefited from the digital stop-gap practices. Therefore, this qualitative study aims to share the challenges and explore the opportunities which emergency remote teaching may have presented to the tertiary level teachers and learners of Bangladesh. Data were collected from 24 teachers from 11 private universities and 19 students from 7 private universities of Bangladesh through focus group discussions. Follow-up interviews were also conducted with 6 teachers and 6 students from 6 universities. The discussions and the interviews were recorded, transcribed, and analyzed thematically. Findings reveal that despite the technological and pedagogical challenges, the integration of technology in teaching and learning during the pandemic has created opportunities for developing learners' autonomy and self-regulation, and teachers' technological pedagogical content knowledge. However, online assessment and feedback strategies did not prove to be satisfactory for the teachers and the students. These findings may have further implications for higher education in the post-COVID climate in Bangladesh.

¹ Associate Professor in the Department of English, East West University, Bangladesh.

² Professor of English language at the Department of English, University of Dhaka.

³ Professor in the Institute of Education and Research (IER), University of Dhaka.

⁴ Professor, Department of English at Muminunnisa Government Women's College, Mymensingh, Bangladesh.

⁵ Professor, Department of English Language, Institute of Modern Languages, University of Dhaka, Bangladesh.

⁶ Associate Professor, Dept. of English Language at the Institute of Modern Languages, University of Dhaka, Bangladesh.

Keywords: Emergency remote teaching, opportunities, challenges, COVID-19

Introduction

The unanticipated turbulence caused by COVID-19 has posed many challenges to the Higher Education (HE) communities around the world (Almazova *et al.*, 2020; Ferri *et al.*, 2020). One of those challenges has been the emergency transition from face-to-face teaching and learning to virtual teaching and learning via different online platforms (United Nations [UN], n.d). As universities and other tertiary level educational institutions were closed in 175 countries across the world and all of the tertiary level students (100%) of the South-Asian countries were affected by this disruption, the Higher Education Institutions (HEIs) needed this makeshift arrangement (World Bank Group Education, 2020). Like other developing countries in South Asia, the Bangladeshi education system had to encounter this crisis and deal with it. Since the 17th of March 2020, all the educational institutions in Bangladesh were closed due to the spread of COVID-19 in the country (Haque, 2020). Considering all pros and cons, in May 2020, the University Grants Commission (UGC) of Bangladesh instructed all the universities to start the online mode of delivery during this period to ensure the continuity of teaching and learning (Abdullah, 2020). Due to the affordability of the students and the technological support, the private universities started teaching online earlier than the public universities in Bangladesh (Jasim, 2020). This sudden change of the teaching mode led the teachers, who probably had very limited or no experience teaching online courses, to adopt digital pedagogies to transform their onsite teaching procedures into online instruction with minimal technical support. This abrupt move to online teaching forced teachers with little or no training to adopt digital pedagogies to cope with the demands of the situation.

It may be noted that Bangladesh holds the 129th position out of 138 countries in terms of internet bandwidth on mobile phones and the 98th position out of 180 countries regarding broadband internet bandwidth (Speedtest Global Index, 2022) demonstrating one of the

poorest bandwidths in the world. Therefore, the decision of implementing online learning in Bangladesh was a crucial challenge at HE. In this regard, the remote teaching and learning experiences of the Bangladeshi teachers and learners during COVID-19 can shed light on the pertinent information required to identify whether or not integrating technology into the traditional face-to-face teaching situation will be able to facilitate teaching and learning at HE in the post-COVID context. Moreover, it is necessary to explore the challenges as well as the opportunities which Emergency Remote Teaching (ERT) (Hodges et al., 2020) practices at HE might have posed to us during this pandemic. These findings could provide information for developing future pedagogical policies, planning and technology infrastructure. Under this backdrop, it is important to explore different aspects of online teaching in the Bangladeshi context so that through a combination of the best practices from the face-to-face mode and ERT, a new, flexible, hybrid/blended and sustainable model of teaching can emerge to promote learning that will cater to the needs of the learners in marginalized contexts (Shin et al., 2021; UN, 2020). The current study was designed with this purpose focusing on the following research questions:

1. What are teachers' perceptions of the transition during the emergency mode of teaching amidst COVID -19?
2. How does the teachers' adoption of an emergency mode of teaching facilitate students' online learning?

Literature review

This section reviews the literature related to ERT and the development of teacher knowledge, teacher roles in an online teaching environment and benefits of introducing ERT in different settings during COVID-19.

Emergency mode of online teaching and teacher knowledge

In response to the unexpected closure of schools, colleges and universities due to the pandemic, different educational institutions around the world decided to adopt ERT which "...provide temporary access to instruction and instructional support in a manner that is quick to set up and is reliably available during an emergency or

crisis" (Hodges et al., 2020, para. 13). The worldwide survey conducted by the National Geographic Learning research team revealed that the majority of the teachers (75%), who opted for ERT, were hardly familiar with online teaching (Shin et al., 2021). Therefore, while integrating technology into education, these teachers would need to develop certain types of knowledge which would help them to use their content and pedagogy based knowledge in collaboration with technology in online classes.

According to Mishra and Koehler's (2006) Technological Pedagogical Content Knowledge (TPACK) framework, when teachers integrate technology in education, their Content Knowledge (CK) that is the knowledge about the subject matter to be taught to the students, Pedagogical Knowledge (PK) referring to the knowledge about different instructional procedures and techniques which will help to nurture students' learning, and Technology Knowledge (TK) referring to the knowledge about technological tools and resources which could be used for teaching and learning, interact with each other. Because of this interaction, TPACK evolves out of Pedagogical Content Knowledge (PCK) which refers to teachers' knowledge of how course contents can be presented to the students using different teaching methods, approaches, techniques; Technological Content Knowledge (TCK) which indicates teachers' knowledge of how the content could be delivered to the students using the most suitable technological tools and resources; and Technological Pedagogical Knowledge (TPK) which relates to teachers' knowledge of how different technological tools and resources could be used for various pedagogical purposes. Thus, TPACK "enables teachers to develop appropriate and context-specific teaching strategies" (Koehler et al., 2014, p. 102). In this regard, Yeh et al. (2013) mentioned that different knowledge dimensions of TPACK can affect five pedagogic areas, such as learners, content to be taught, curriculum, classroom teaching and assessment. Since the teachers could not take the required preparation before starting ERT (Shin et al., 2021), we may need to investigate how far these teachers were able to develop TPACK for their virtual teaching.

In addition to developing TPACK, teachers may also need to play different roles. Rapanta et al. (2020) suggested that teachers need to ensure three types of “presence” in the ERT environment, such as “cognitive presence” where they will have to check students’ preparedness; “a social presence” where they will frequently communicate with students through various channels and a “facilitatory presence” where teachers will become a facilitator and mentor, and give direct instruction embodying tools/resources (Rapanta et al., 2020, pp. 938-939). Finally, teachers need to follow the continuous or formative assessment process so that students can maintain and develop self-regulation and learner autonomy, and the teachers can monitor the learners’ progress. It would be useful to explore whether or not the teachers who embarked on online teaching without or with little preparation were able to discharge these roles.

Considering the uncertainties of an emergency, Whittle et al. (2020) suggested that teachers should constantly enquire about students’ access to online classes, and health and safety-related issues so that they can regularly update their pedagogical applications according to the learners’ needs and agency, “critical learning goals”, synchronous or asynchronous mode of communication, assessment, instructor’s and learners’ roles, and feedback procedure (p. 314). Finally, teachers will need to adopt these strategies and evaluate the whole procedure from time to time to ensure the successful implementation of ERT.

Almazova et al. (2020, p. 9) also investigated the HE context of Russia during the pandemic and mentioned that fostering students’ “critical and creative thinking skills”; “actualization of students’ self-education needs and skills” and “development of students’ sustainable motivation” for studies must be ensured while organizing online teaching and learning. These objectives reiterate the implementation of the frameworks provided on ERTE by Whittle et al. (2020) and place learners’ needs and context at the center. Therefore, the teachers will need to consider the above factors for the fruitful integration of technology at any level of education.

The UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) report (2020) revealed the impact of COVID-19 on HE in that region and generalized that in the post-COVID era, hybrid methodologies would be used in different HEIs around the world “to support pedagogical renewal and improvement” (UNESCO IESALC, 2020, p. 44). Therefore, the practical experiences that teachers and students have gathered from the ERT practices could prove to be a valuable source of context-based information in providing future directions to HE in terms of making different choices in teaching methodologies.

Teacher roles in online teaching

Teachers play one of the most vital roles in ensuring the quality of teaching and learning online (Hodges et al., 2020). Huang, Liu et al. (2020) pointed out that a teacher should be a monitor, feedback provider, and resource of learning materials in an ERT context to facilitate online learning. They emphasized teachers’ use of effective methodology and friendly learning tools and the promotion of self-regulation via independent study and collaborative learning to increase learning opportunities in an online environment. Mahmood (2021) also suggested teachers design interactive and participatory classroom tasks and case studies so that students can engage in real-life related activities to nurture their innovative and creative abilities during this pandemic. Therefore, teachers will need to be very flexible in their teaching approaches so that they can accommodate any kind of challenging context online. This flexibility has added a new dimension to the traditional teacher roles, and satisfactory performance of this role may help the teachers ensure a rewarding online learning experience.

Benefits of introducing ERT in different settings during COVID-19

Researchers identified different benefits of implementing ERT around the world. Oyedotun (2020, p. 2) revealed several merits of introducing ERT in Guyana during this pandemic, such as: “general

benefits” regarding deriving different resources of teaching materials and class recordings using online tools; “personal growth and development benefit” concerning teachers’ professional development and HEI’s infrastructural and technological development; and “pedagogical benefits” in terms of teacher-student connectedness outside the classroom, use of different online tools for teaching and learning and the opportunities of introducing blended learning. Similarly studies conducted in the world wide context by Shackleton et al. (2021) and Shin et al. (2021) as well as the research conducted by Mishra et al. (2020) and Talidong and Toquero (2020) in Indian and Filipino contexts respectively revealed the beneficial impact of ERT on teaching and learning. Zhang’s (2020) study further revealed that ERT had positive impact on those Chinese students’ online performances who had good self-regulation and learner autonomy.

The above studies, which were mostly conducted in the context of developed countries, highlighted a gamut of merits in favour of ERT starting from personal growth to pedagogical and technological development benefits. In those contexts, ERT seemed to offer an alternative to face-to-face teaching, which proved to be convenient for both teachers and students involved. However, very few studies (Bashir et al., 2021; Khan et al., 2020, 2021a) have been conducted in developing countries contexts to explore the opportunities which teachers and learners could get during the ERT with their limited technological support and poor internet access. Moreover, a few studies (Khan et al., 2021b) have been conducted in Bangladeshi private universities contexts to investigate these issues. Therefore, this study aimed to identify the opportunities that the tertiary level teachers and students of Bangladesh might have gained from their remote teaching and learning experiences encountering the challenges during COVID-19.

Methodology

This study was conducted following a qualitative research approach. The data were collected through Focus Group Discussions (FGDs)

followed by in-depth semi-structured Interviews (IVs). The population of this study is English language teachers and learners from different private universities in Bangladesh. Following a convenient sampling technique for teachers in terms of access and time. For accessing the participants, an open invitation was circulated on social media, and teachers who were interested to participate in the FGD were contacted for sharing their convenient time. A total of 24 teachers from 11 private universities participated in 5 FGDs. On the other hand, students were accessed through the teachers who participated in the FGDs. Hence, students for FGDs were selected adopting a snowball sampling technique. A total of 19 students from 7 private universities participated in 5 more FGDs. From the teachers and the students who took part in the FGDs, 6 teachers and 6 students were later purposively selected for in-depth IVs. Table 1 and Table 2 present the demographic information regarding the teachers and the students respectively.

Table 1. Teachers' Demographic Information

Identifiers		FGD Details	Interview Details
Total number		24	6
Gender	Male	8	2
	Female	16	4
Experience	0- 5 years	8	2
	6- 10 years	6	2
	11- 15 years	5	1
	16- 20 years	4	1
	Over 20 years	1	0
Levels taught	Undergraduate	18	4
	Both graduate and undergraduate	6	2
Taught courses	Skill-based courses	12	3
	Skill-based and English literature courses	2	1
	Skill-based, applied linguistics and English Language	12	2
	Teaching(ELT) courses		

Table 2. Students' Demographic Information

Identifiers		FGD Details	Interview Details
Total	Number	19	6
Gender	Male	9	3
	Female	10	3
Level of Education	B. A (Hons.) 1 st year	7	2
	B. A (Hons.) 2 nd year	3	1
	B. A (Hons.) 3 rd year	2	1
	B. A (Hons.) 4 th year	7	2
Faculties	Social Science and Humanities	15	4
	Business	3	1
	Science	1	1
Enrolled in	Skill-based courses	10	2
	English Literature, applied linguistics & English Language	6	2
	Teaching (ELT) courses		
	All the above courses	3	2

The data collection tools, the FGD questions and the semi structured interview questions, were piloted and revised. Since this study was conducted during a lockdown period caused by the pandemic, the FGD and the IV data were collected using Zoom and Google Meet platforms. The duration of the FGDs was 50-90 minutes whereas the IVs lasted for 25-50 minutes. The FGDs and the IVs were conducted in both Bangla and English keeping in mind the convenience of the participants. All data were digitally recorded with the consent of the participants.

The digitally recorded data were transcribed following a verbatim approach and translated into English by professional translators. The researchers of the study checked the quality of the transcription and translation randomly with digitally recorded data. Then, the data were analyzed thematically. This thematic analysis was question-driven that followed a deductive approach rather than an inductive approach (Braun & Clarke, 2006). The anonymity of the participants was maintained by coding the teacher

participants as Teacher 1 (T1) to T 24 and the student participants as Student 1 (S1) to S 19. Several consensus meetings were held among the authors for conducting this research, and analyzing and reviewing the findings of the study. To maintain the trustworthiness (Golafshani, 2003) of the study, the data were triangulated from several sources (e.g. teachers and students) and methods (e.g. FGDs and IVs).

Findings and discussion

The qualitative data indicated seven emerging themes regarding the teachers' and students' perceptions about the challenges and the opportunities that occurred during the ERT amidst COVID-19. The themes were related to teachers' professional development, teacher and student connectivity, use of materials, multiple ways of learning, learner autonomy, assessment techniques, and the prospect of online teaching and learning in Bangladesh.

Teachers' professional development

The teachers did not have any experience teaching online before starting ERT during COVID-19. However, as they had 3-20 years of teaching experience, they were able to identify that only PCK would not be able to help them teach online. They pointed out in the FGDs that they realized that they needed to update their pedagogical techniques and activities, instructional resources, assessment techniques and feedback procedures to accommodate the online teaching and learning contexts (Yeh *et al.*, 2013). As a result, all of them tried to obtain TCK and TPK by attending different virtual training sessions arranged by their respective institutions, and through collaborating with their friends who were familiar with various technological tools.

The teachers further explained in the IVs what they learned from those formal and informal training. For instance a teacher reported in this regard that:

we colleagues together had some meetings and we helped each other earnestly. For example, one of our colleagues suggested making adobe spark. So, he knew how to do it and he taught us how to prepare video classes over there. (T 3)

Regarding TCK, the teachers developed their understanding of presenting teaching content through pdf copies, slides or multimedia, disbursing materials through Google Classroom, Whatsapp, email, Google Drive and/or Facebook. Concerning TPK, teachers learned how to integrate technology while delivering instruction via different modes of teaching and digital platforms, and managing classes through Google Meet, Zoom, Facebook and/or WhatsApp. They also received training on how to use Turnitin for detecting plagiarism and cheating in students' writing. They obtained knowledge regarding how to use Google Form, Google Docs, Google Jam board, Mind Maps, Padlet, Kahoot, Edpuzzle and Flipgrid for designing engaging activities, and taking quizzes, presentations and examinations. Though teachers became familiar with those tools, all of them mentioned in the IVs that they could not use most of these mechanisms due to the poor speed of the internet and students' lack of having digital literacy and devices with larger screens other than mobile phones. As most of the students used mobile phones for attending classes, they could not respond appropriately through these gadgets. Because of these factors, the majority of the teachers could use only Google Form, Google Docs and Google Jamboard in the classes even after gaining knowledge about other tools.

The FGD and the IV data further revealed that the development of PCK, TCK and TPK helped the teachers design lesson plans for teaching English language skills, English literature, applied linguistics and English Language Teaching (ELT) based course contents online (Tseng et al., 2020). They focused on planning lessons during ERT because "if classes are not good, students might not feel interested to attend the classes" (T 9) and "... unless they find it effective they will not take the trouble of buying data, using the devices, sitting before the monitor for such a long time" (T 21). The interaction of these three types of knowledge, the teachers seemed to have developed TPACK focusing on how to choose and select different

teaching methods and relevant technologies to present and teach the contents according to various technological challenges and students' needs; how to plan and manage online activities using different teaching techniques and technologies for developing students' content knowledge and English language proficiency; how to evaluate students in online courses using different assessment tools; and how to give feedback on students' writing (Koehler et al., 2014; Mishra & Koehler, 2006).

Bao (2020) also identified that teachers' professional skills developed during the pandemic in the Chinese ERT context. However, all the teachers reported in the IVs that they needed more intensive training to increase their confidence and efficiency in operating different technological tools in the online teaching environment. Hodges et al. (2020), Koehler et al. (2014), Rapanta et al. (2020), and Whittle et al. (2020) also suggested that teachers should develop PCK along with pedagogical digital competence to function smoothly in different online teaching contexts. Thus, the ERT experience during COVID-19 has highlighted the importance of training teachers and developing various dimensions of their knowledge.

Teacher and student connectivity

As the teachers and the students could not meet face to face during ERT, both of the groups became more active online (Ferri et al., 2020). The teachers' newly developed knowledge of technology might have helped them to understand the students' needs and supported them to take necessary initiatives during the pandemic. Therefore, one teacher (T 12) commented in the FGD that *"we all know that it is a very crucial time and students are asking for our help. Now we have to become their therapist, psychologist, teacher all in one"* online. All the students seemed to agree with S 9 who reported in the FGD about the teachers' presence. S 9 mentioned that *"the teachers ...have always assured us that we would get help from them ... whenever we face problems. We have found them available all the time."* Rapanta et al. (2020) and the UN's (2020) policy briefing also suggested teachers increase their presence in

different roles on online platforms to maintain connectivity with the students. The students also reported in the FGDs that they became digitally literate and confident in using online tools by utilizing the frequent opportunities to interact with their peers and teachers via different online platforms (Huang, Shi et al., 2020). However, the teachers mentioned in the IVs that they had to invest a significant amount of time every day for ensuring their presence online. They did not need to do it during the offline mode of teaching. Therefore, time management has probably become a new challenge during the pandemic.

Materials used during remote teaching

Though the teachers initially struggled in providing students with necessary materials for their online classes, their development of TPACK probably helped them to identify ways to overcome these obstacles to a certain extent. They highlighted in the IVs that they were aware of the fact that the students had difficulties in buying books online or offline, taking prints and downloading large files. Moreover, the students revealed in the IVs that they had limited access to the library and paid high costs for downloading materials. Due to these issues, the teachers struggled in selecting the appropriate course contents and suitable materials for teaching online. Mishra et al. (2020) also found in the Indian ERT context that teachers sought feedback constantly from their students to upgrade their teaching materials.

The FGD data further unfolded that the teachers struggled to find relevant audio-visual materials according to the learners' interest areas and the course contents. Therefore, they started developing new materials using different technological tools. The FGD data revealed that five of them mentioned in the FGDs that they prepared short videos as authentic materials for teaching English language skills, applied linguistics and ELT courses. For instance, one teacher reported that:

...usually the students do not feel like going through other study materials than the lecture slides online... So, as I teach psycholinguistics, I brought in videos of Bangladeshi kids... and asked them to analyze these... suddenly they became very interested. (T 4)

Thus, the teacher tried to engage the learners by creating authentic video content. They also prepared audio records accompanied by grammar practice-based activities. In one university, all the teachers of the English department were involved in creating audio clips for their students. They also frequently used live class recordings, PowerPoint slides, soft copies of the textbooks and YouTube videos as teaching materials. While preparing video-based materials for the students, a teacher (T 18) identified that *“shorter videos are more effective than longer videos”* because those videos took less time to prepare, and those materials were easy to download at a lower cost with minimal technical support. All the other teachers agreed with T 18 regarding this fact in the FGD.

The students also found these varieties of materials useful to some extent since one student in the FGD (S 7) stated that teachers *“...provided us many things to make us comfortable and easy for studying. They share slides, video recordings, and pdf files also.”* However, the students pointed out in the FGDs that they faced numerous problems in reading the soft copies of the books or articles on the mobile screen as no other devices were available to them. On the other hand, the data also revealed that the majority of the teachers (5 out of 6 teachers in the IVs) reported that they could not provide the students with any interactive multimedia-based materials which could have made the online language learning experience more interesting and engaging for the learners (Ferri et al., 2020). Therefore, the data suggested that the pandemic provided the Bangladeshi teachers with an opportunity to explore the types of materials which would be effective in teaching online and the difficulties which might arise during the use of those materials. This opportunity will help them develop materials for the post-COVID situation as teachers may need to integrate technology into face-to-face teaching (UNESCO IESALC, 2020).

Use of multiple engagement techniques

The teachers faced several challenges regarding classroom interaction and management during ERT. In the FGDs, the teachers

mentioned that they used to get an idea about students' prior knowledge and current level of understanding by observing their facial expressions, eye contacts, and body movements in face-to-face classes. In contrast, when the camera was off in an online situation (due to lack of high-speed internet connectivity), it became challenging for them to customize and adjust their instructions and materials according to students' current level of understanding. They also could not assign any in-class group or pair works because of a lack of required technological support.

On the other hand, most of the classes irrespective of the contents became mainly teacher-centric where students only listened to the teacher talk but fruitful learning results from both cognitive processing and social interaction (Hodges et al., 2020). Therefore, the teachers mentioned in both FGDs and IVs that they started focusing on creating meaningful learning opportunities online so that students could develop their language skills along with critical thinking abilities related to different course contents (Tseng et al., 2020). As a result, the teachers focused more on clarifying students' understandings rather than on finishing syllabus. For example, T 3 reported in the FGD that as it was difficult to conduct pair and group works in online classes, they welcomed "*students' opinions and comments, and elicited responses for each of the items*" more than the offline classes. The students also confirmed in their IVs that their teachers changed the interaction pattern in the online classes as they started asking a good number of probing questions. Thus teachers tried to increase the learners' involvement by applying different instructional strategies (Zhao et al., 2016).

The FGD and the IV data further unfolded that the teachers used other engagement strategies in their online classes, such as reflecting on the content of the previous class by answering multiple-choice questions in Google Forms. This type of learner engagement strategies have also been suggested for online classes by Chong et al. (2021). For applied linguistics and ELT courses, the students would have to present in groups or pairs on case studies and problem-solving tasks based on their personal experiences. Thus, the teachers tried to make the lessons interesting to the learners by engaging them in different interactive activities.

The students also reported in the IVs that these types of tasks were not given to them to such a great extent by almost all the teachers before the pandemic. The use of these strategies suggested that ERT has probably provided the teachers with the opportunities to engage the learners in multiple ways. These strategies might have opened the path for nurturing students' critical thinking and problem-solving abilities in online classes, and raised the teachers' critical awareness of their instructional strategies. The teachers' TPACK might have played an important role in this regard. Thus, gradually online teaching might have become more student-centric during the pandemic. These findings corroborate with the suggestions made by Almazova et al. (2020) for teaching online.

Opportunities for developing learner autonomy

ERT provided the teachers with the scope to promote learner autonomy to some extent. The student IV data revealed that the students who had poor fluency in spoken English, and who are afraid of public speaking found the online learning quite facilitative to them as they could respond both inside and outside the classes using multiple channels. The teachers also mentioned in the FGDs that they noticed that some of the quietest and shy students started responding during their online classes as they implemented different ways of communication through the chat box, hand raise option, emojis, verbal communication, and Whatsapp. Huang, Liu et al.'s (2020) study revealed similar findings in the Chinese context. Therefore, one teacher (T 6) commented that *"...even the most negligent boy, who used to miss classes, now asks questions...As now he doesn't have the option to collect notes from someone else..."*. This experience indicated that the students were probably becoming autonomous using online platforms for learning.

More evidence regarding the development of learner autonomy were gathered from the IVs. One of the students (S 10) pointed out this fact in the IV *"now since we either have to mail or call to contact our teachers so, we feel lazy and sometimes uncomfortable. We now try to solve our problems by searching the solution on Google at first"*. Thus, the student became less dependent on the

teachers during online learning. Almazova et al. (2020) and Zhang's (2020) studies corroborated these findings. The students might have also gained the opportunity to practice self-regulation during the pandemic. In this regard, two students pointed out that "*in online classes, study depends on me*" (S 7, S 12). Therefore, they realized that they would have to be self-motivated to do well in any course. As a result, both the teachers and the students acknowledged in the IVs that the students started using more materials outside the referred texts and articles for writing their assignments in different courses than the pre-pandemic period. Thus, ERT helped the students develop learner autonomy and self-regulation which were not properly nurtured in the face-to-face teaching context in Bangladesh (Begum, 2018).

Use of assessment techniques

Controlling plagiarism and cheating in students' writing became a major concern in online teaching during the pandemic (Hill et al., 2021). The teachers mentioned in both FGDs and IVs that they observed that a good number of students resorted to plagiarism and contract cheating during examinations or while doing assignments. These students, though submitted well-written assignments, could not explain how they wrote it during their viva or oral presentations.

To solve these problems, the teachers informed in the FGDs that they started assessing the learners based on their higher-order thinking skills. Therefore, the teachers included project-based, problem-solving and decision-making tasks to assess their students (Almazova et al., 2020; Stobaugh, 2013). The teachers set these tasks either for doing assignments and/or presentations in groups or pairs or for answering individually in the examination. Accordingly, the students mentioned in the IVs that during the pandemic their teachers asked them to prepare assignments comparing the characters that they read in novels or short stories with any famous public figures of the country in the literature courses, whereas in the ELT courses they had to suggest teaching strategies or methods for various groups of learners considering

different educational levels, classroom contexts and mediums of instructions of Bangladesh. Additionally, they had to prepare 1 to 2-minute videos on different topics for their spoken English courses and post those on Facebook groups, and analyze and present audio-visual materials for applied linguistics courses. They hardly did these types of tasks during their offline classes.

The teachers also changed instructions for preparing assignments to control students' cheating and plagiarism. For example, T 19 informed in the FGD that:

...instead of leaving the options open for them, I limited the options. I asked them to collect 4/5 sources and stick to only those sources for writing their assignments. They have to submit those sources, web pages, book chapters, or whatever. And I have the materials they use. (T 19)

Hence, students informed in both FGDs and IVs that most of their "assignments are now accompanied by either viva or presentations to check whether or not we have done the task. We have never give viva earlier" (S 12). Therefore, the inclusion of viva voce was quite new to them as they did not face it in the offline classes.

The changed pattern of the questions probably made the students think more critically during their online assessment and helped them realize the responsibility of their learning. One of the students (S 5) clarified the impact of these changes further in the IV and mentioned that "now our memorization skill does not help us much to answer the exam questions. Now, we have to read texts and think more analytically and practically, and add our views and experience to write answers or assignments." The teachers probably made these types of modifications in online assessment techniques using their TPACK (Yeh et al., 2020) which were rarely in use in pre-COVID Bangladesh (Islam et al., 2021). Huang, Shi et al. (2020) also revealed similar findings regarding assessment in the Chinese contexts.

In spite of facing the challenges in controlling plagiarism, the teachers from only three out of 11 universities informed in the FGDs that they started using Turnitin for checking the plagiarism in

students' writing. Accordingly, the quality of education could vary from institution to institution in Bangladesh. These variations could affect the standard of online education to a large extent (Hodges et al., 2020). Therefore, all the university authorities may consider these issues while planning policies for online education in future.

Future of online teaching and learning in Bangladesh

Though students faced different challenges online, their attitudes seemed to be positive about online classes in general. The students started liking the flexibility of online teaching and learning as all the participants agreed with S 12 in the FGD on the fact that *"online study allows us to study anytime and anywhere with relaxation..."* (S 12). Another FGD participant (S 8) added that *"online classes are saving time and money"* as they did not have to go to the university facing several hours traffic jam or pay house rents for staying in the metropolitan cities to attend the classes. All the other students supported these points in the IVs. Thus, students showed a positive attitude towards online teaching and learning even after facing different challenges. These findings echo the results of the survey conducted by Shackleton et al. (2021) in diverse contexts around the world.

Conclusion

This paper identified the challenges and explored the opportunities that COVID 19 posed for the teachers and the learners at HEIs in Bangladesh. The findings revealed that the teachers were continually involved in the process of evolution by modifying their usual practices and incorporated new ways to facilitate their students' online learning experiences. Connecting with students and increased awareness about the community have made the teachers reorganize their teaching techniques and assessment tools. Thus, both parties, students and teachers, worked collaboratively and supported each other to handle the crisis at hand. Therefore, the overall experience of teaching was a combination of formal, informal, and virtual elements.

Moreover, the ERT led the teachers to engage in professional development and provided them with the opportunities to develop their TPACK which they could integrate with their online classes. This shift of teaching context from offline to online mode during the pandemic has worked as a catalyst to bring changes in designing learning activities and assessment tools, expanding teacher roles, and adopting flexible teaching procedures for accommodating the uncertainties involved in the context of the pandemic-affected teaching-learning community. Learning seems to have become more personalized as it is related to learners' interests and gives them opportunities to share their voices. The students, who were involved with the ERT processes during the pandemic, also demonstrated several mentionable attributes, such as increased critical thinking ability, resilience, learner autonomy, and self-regulation.

The benefits of TPACK that teachers have generated from this emergency mode of teaching might not be limited only to this pandemic but can be extended to facilitate face-to-face contexts. The concerned authorities at HEIs should consider these pedagogical impacts to redesign the teaching and learning in the post-pandemic era. It is recommended that strong internet connectivity, affordable devices, systematic training of teachers, appropriate teaching materials and learning resources, and suitable e-learning platforms with necessary software need to be ensured for smooth online operation.

As this is a qualitative study with a limited number of participants, the findings cannot be generalized. Further extensive research with a larger sample size can be conducted to draw generalizations. The findings of this study may work as a resource and guideline for relevant stakeholders towards developing a sustainable system of teaching and learning in Bangladesh.

References

- Abdullah, M. (2020, June 24). UGC seeks special allocation for online classes in public universities. *Dhaka Tribune*. <https://www.dhakatribune.com/bangladesh/education/2020/06/24/ugc-seeks-special-allocation-for-online-classes-in-public-universities>
- Almazova, N., Krylova, E., Rubtsova, A., & Odinkaya, M. (2020). Challenges and opportunities for Russian higher education amid COVID-19: Teachers' perspective. *Education Sciences*, 10(12), 368. <https://doi.org/10.3390/educsci10120368>
- Bao, W. (2020). COVID –19 and online teaching in higher education: A case study of Peking University. *Human Behaviour and Emerging Technologies*, 2(2), 113–115. <https://doi.org/10.1002/hbe2.191>
- Bashir, A., Uddin, M. E., Basu, B. L. & Khan, R. (2021). Transitioning to online education in English Departments in Bangladesh: Learner perspectives. *Indonesian Journal of Applied Linguistics*, 11(1), 11-20. <https://doi.org/10.17509/ijal.v11i1.34614>
- Begum, J. (2018). Learner autonomy in EFL/ESL classrooms in Bangladesh: Teachers' perceptions and practices. *International Journal of Language Education*, 2(2), 96-104. <https://doi.org/10.26858/ijole.v2i2.6411>
- Black, D., Bissessar, C. & Boolaky, M. (2019). Online education as an opportunity equalizer: The changing canvas of online education. *Interchange*, 50, 423–443. <https://doi.org/10.1007/s10780-019-09358-0>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Chong, C. S., Bermingham, S., & Thomas, C. (2021). *Connect, manage and engage best practices for the online classroom: What have we learned about teaching during the pandemic?* [Recorded presentation with Q & A]. TESOL 2021 International Convention and English Language Expo Virtual, Pittsburgh, Pennsylvania, USA. <https://www.tesol.org/attend-and-learn/international-convention>
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86. <https://doi.org/10.3390/soc10040086>
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), 597-606. <https://doi.org/10.46743/2160-3715/2003.1870>
- Haque, A. (2020). The COVID-19 pandemic and the public health challenges in Bangladesh: A commentary. *Journal of Health Research*, 34(6), 563-567. <https://doi.org/10.1108/JHR-07-2020-0279>

- Hill, G., Mason, J. & Dunn, A. (2021). Contract cheating: an increasing challenge for global academic community arising from COVID-19. *Research and Practice in Technology Enhanced Learning*, 16, 24. <https://doi.org/10.1186/s41039-021-00166-8>
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27). The difference between emergency remote teaching and online learning. *Educause*. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
- Huang, M., Shi, Y., & Yang, X. (2020). Emergency remote teaching of English as a foreign language during COVID-19: Perspectives from a university in China. *IJERI: International Journal of Educational Research and Innovation*, 8(15), 400-418. <https://doi.org/10.46661/ijeri.5351>
- Huang, R. H., Liu, D. J., Tlili, A., Yang, J. F., & Wang, H. H. (2020, March 15). *Handbook on facilitating flexible learning during educational disruption: The Chinese experience in maintaining undisrupted learning in COVID-19 Outbreak*. Smart Learning Institute of Beijing Normal University
- Islam, M.S., Hasan, M.K., Sultana, Karim, A., & Rahman, M. M. (2021). English language assessment in Bangladesh today: Principles, practices, and problems. *Language Testing in Asia*, 11(1). <https://doi.org/10.1186/s40468-020-00116-z>
- Jasim, M. M. (2020, April 30). Govt allows private universities to take online classes, exams. *The Business Standard*. <https://tbsnews.net/bangladesh/education/govt-allows-private-universities-take-online-classes-exams-75760>
- Khan, R., Bashir, A., Basu, B. L., & Uddin, M. E. (2020). Emergency Online Instruction at Higher Education in Bangladesh during COVID-19: Challenges and Suggestions. *The Journal of Asia TEFL*, 17(4), 1158-1546. <http://dx.doi.org/10.18823/asiatefl.2020.17.4.26.1497>
- Khan, R., Basu, B. L., Bashir, A. & Uddin, M. E. (2021a). Online Instruction during COVID-19 at Public Universities in Bangladesh: Teacher and Student Voices, *Teaching English as a Second Language Electronic Journal (TESL-EJ)*, 25(1). <https://tesl-ej.org/pdf/ej97/a19.pdf>
- Khan, R., Jahan, A., Sultana, S., Kabir, M. M. N., Haider, M. Z. & Roshid, M. M. (2021b). Accessing Online Instruction amidst COVID-19 in Bangladesh: Barriers and Coping Strategies, *Language Teaching Research Quarterly*, 22, 33-48. <https://doi.org/10.32038/ltrq.2021.22.03>
- Koehler, M.J., Mishra, P., Kereluik, K., Shin, T.S., & Graham, C.R. (2014). The technological pedagogical content knowledge framework. In J. M. Spector, M. D. Merrill, J. Elen, & M. J. Bishop (Eds.), *Handbook of Research on Educational Communications and Technology*. Springer. https://doi.org/10.1007/978-1-4614-3185-5_9

- Mahmood, S. (2021). Instructional strategies for online teaching in COVID-19 pandemic. *Human Behavior and Emerging Technologies*, 3, 199-203. <https://doi.org/10.1002/hbe2.218>
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 1. <https://doi.org/10.1016/j.ijedro.2020.100012>
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for integrating technology in teachers' knowledge. *Teachers College Record*, 108 (6), 1017–1054
- Oyedotun, T. D. (2020). Sudden change of pedagogy in education driven by COVID-19: Perspectives and evaluation from a developing country. *Research in Globalization*, 2, 1-5. <https://doi.org/10.1016/j.resglo.2020.100029>
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Science and Education*, 2(3), 923-945. <https://doi.org/10.1007/s42438-020-00155-y>
- Shackleton, J., Bellhouse, G., & Muir, J. (2021, March 24-27). *Pandemic challenges: Accessibility, inclusion and engagement* [Recorded presentation with Q & A]. TESOL 2021 International Convention and English Language Expo Virtual, Pittsburgh, Pennsylvania, USA. <https://www.tesol.org/attend-and-learn/international-convention>
- Shin, J. K., Borup, J., & Casey, E. (2021, March 24-27). *What have we learned about teaching during the pandemic?* [Recorded presentation with Q & A]. TESOL 2021 International Convention and English Language Expo Virtual, Pittsburgh, Pennsylvania, USA. <https://www.tesol.org/attend-and-learn/international-convention>
- Speedtest Global Index. (2022). Speedtest. <https://www.speedtest.net/global-index>
- Stobaugh, R. (2013). *Assessing critical thinking in middle and high schools: Meeting the common core*. Routledge
- Talidong, K. J. B., & Toquero, C. M. D. (2021). Facing COVID-19 through emergency online education anchored in Khan's framework: Case of Philippine teachers in Xi'an, China. *European Journal of Interactive Multimedia and Education*, 2(1), 1-6. <https://doi.org/10.30935/ejimed/9683>
- Tseng, J.-J., Chai, C. S., Tan, L., & Park, M. (2020). A critical review of research on technological pedagogical and content knowledge (TPACK) in language teaching. *Computer Assisted Language Learning*. <https://doi.org/10.1080/09588221.2020.1868531>
- UNESCO IESALC. (2020, April). *COVID-19 and higher education: Today and tomorrow. Impact analysis, policy responses and recommendations*. <http://hdl.handle.net/10919/98441>

- United Nations. (2020, August). *Policy brief: Education during COVID-19 and beyond*. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf
- United Nations. (n.d.). *COVID-19 and higher education: Education and science as a vaccine for the pandemic*. <https://www.un.org/en/academic-impact/covid-19-and-higher-education-education-and-science-vaccine-pandemic>
- Whittle, C., Tiwari, S., Yan, S. & Williams, J. (2020). Emergency remote teaching environment: A conceptual framework for responsive online teaching in crises. *Information and Learning Sciences*, 121(5/6), 311-319. <https://doi.org/10.1108/ILS-04-2020-0099>
- World Bank Group Education. (2020). *The COVID-19 crisis response: Supporting tertiary education for continuity, adaptation, and innovation*. <http://hdl.handle.net/10986/34571>
- Yeh, Y., Hsu, Y., Wu, H., Hwang, F., & Lin, T. (2013). Developing and validating technological pedagogical content knowledge practical (TPACK practical) through the Delphi survey technique. *British Journal of Educational Technology*, 44(6), 1-16. <https://doi.org/10.1111/bjet.12078>
- Zhang, T. (2020). Learning from the emergency remote teaching-learning in China when primary and secondary schools were disrupted by COVID-19 pandemic. *Research Square*. <https://doi.org/10.21203/rs.3.rs-40889/v1>
- Zhao, C., Pandian, A., Singh, M. K. M. (2016). Instructional strategies for developing critical thinking in EFL classrooms. *English Language Teaching*, 9(10), 14-21. <http://dx.doi.org/10.5539/elt.v9n10p14>