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Teaching English amidst coronavirus pandemic in Bangladesh: Technological adaptations and pedagogical modifications

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ARTICLE INFO	ABSTRACT
	This research intended to explore the improvisations and novel adaptations to the existing technological devices and applications, and the changes to the already-practiced pedagogical approaches, which the English language teachers of Bangladesh made and implemented to continue teaching English amidst the COVID-19 pandemic. The study utilized the mixed methodology applying an open-ended questionnaire on 12 English Language Teaching (ELT) teachers from across the country, who taught English language to various levels of students through online mode during the impasse. The findings of the research demonstrated that ELT teachers effectuated dramatic changes and improvisations to the existing technological devices, programs and applications to respond to the new mode of teaching, and exert the best of it. Simultaneously, the results presented that most of the ELT teachers had to inculcate dramatic modifications to the habituated pedagogical practices, a major portion of which was psychological shift and support.

1. Introduction

COVID-19 pandemic has had a deep impact on the mode of teaching and learning in higher education, which propelled, almost across the world, an abrupt shift of pedagogical approaches (Silvia et al., 2021; Moorhouse and Wong, 2022). Educators all over the world, albeit with varied respective details, faced fresh academic challenges, and had to transition courses from basically in-class teaching and learning to an alternative online teaching (Silvia et al., 2021; Moorhouse and

Wong, 2022). The abrupt shift to virtual pedagogy resulting from the Coronavirus pandemic in many countries, mostly the developing ones, has brought to light a number of challenges and abnormalities, and some blessings as well (Oyedotun, 2020). The education sector, like scores of other fields, has not been spared by the dire effects of COVID-19 since it has had debilitating impact on all levels of universal education systems from pre-primary to tertiary levels and had also forced all sorts of onsite academic sessions and conferences to absolute halt (Oyedotun, 2020). Bangladesh reposts its first confirmed COVID-19 case on March 8, 2020 (WHO). The government of the People's Republic of Bangladesh declared nationwide lockdown for all sorts of public and private offices and institutions including schools, colleges and universities on March 16, 2020, and with the rising number of Coronavirus affectedness and, as a result, growing public concern for people's health and life, the shutdown period kept getting extended from time to time (Barua, 2020; Emon et al. 2020).

COVID-19 crisis has not only put an absolute stop to students' schooling but also severely curtailed their scopes for social protection, entertainment, health-promoting atmospheres, financial doorways and psychological support (Uddin, 2020). On top of the loss of onsite learning as well as socializing, the closure of academic institutes has led to a number pressing issues, like dropouts, digital divide and economic inequality (Uddin, 2020). With the ongoing distant education facilitated by internet and television, students need smooth availability of all the necessary devices which, as Das (2020) explores, are lacked by majority of the receivers of education since only 37.6% of the house-holds of Bangladesh possess internet access and this percentage gets decreased considerably in the rural areas of the country. A study by Sundarasen et al. (2020) on the impact of the COVID-19 pandemic on the anxiety level of the tertiary level students of Malaysia explores that 20.4%, 6.6% and 2.8% of the 983 respondents of the research went through least to moderate, marked to acute and most extreme levels of anxiety which stemmed from economic scarcity, virtual distance learning and uncertainty regarding future academic performance and career.

The implications of this research might benefit not just the technological and pedagogical improvisations and adaptations in terms of teaching English during the near-past global shutdown and worldwide online education both propelled by the COVID-19 Pandemic, rather they are likely to act aptly for any remote teaching-learning circumstances forced by any known or unknown calamity at present and in the days to come.

Technological Adaptations and Innovations

According to Moorhouse and Wong (2022), the COVID-19 pandemic has emerged as a cata-lyst for teacher novelty and progress in terms of improvisation of existing digital resources and inno-vating new technological atmosphere. Higher levels of technical incorporation and greater perceived learning efficacy of virtual teaching are affirmatively connected with the use of the new technological devices, software and applications (Dincher and Wagner, 2021). In Germany, Dincher and Wagner (2021) considered the implementation of eight technological options for education during COVID-19, namely: sending paper-based assignments, phone calls with students, sending assignments via email, providing students with links to digital learning material of third parties, recording learning videos, uploading learning material via a digital platform, live teaching via a video conference (e.g. Zoom, Microsoft Teams), and recording audio messages. However, Christopoulos and Sprangers

(2021) suggest for, in terms of implementing technological adaptations into education, careful examination of the features of potential platforms or tools, a trial of such features prior to integration within an educational system, paying special attention to the degree of gamification, especially beyond the primary school level, as it may negatively impact incentives for student interaction and engagement, and ensuring pedagogical goals, not technological burdens.

Pedagogical Impact

A study by Baird et al. (2020) reveals that, due to the lingering existence of the pandemic, a large number of adolescents are affected by economic constraints along with malnutrition, anxiety and mental health issues. The abrupt move from the in-class teaching activities to the virtual ones gave birth to various dilemmas and hesitations among both the teachers and learners (Lee et al., 2022). The teachers who were already experienced in online teaching faced one sort of reality while those having no experience in online mode of teaching face some different sort of pedagogical challenges (Lee et al., 2022). New teachers along with the students suffered fear and insecurity at the approach of using newer technological devices and arrangements in teaching and learning in a critical situation like COVID-19 (Varea et al., 2022). Many academic institutions moved to activate digital pedagogy as a contingency plan to achieve teaching and learning during the COVID-19 pandemic (Zhang and Yu, 2021). In response to the changed teaching-learning mode in the pandemic, teachers extended their pedagogical dimensions, improvised existing technological apparatus and applications, innovated fresh and more efficacious technologies and software, reshaped pedagogy in an easier and more effective version, bettered learning atmosphere, improved learner treatment, and provided required support to the learners (Zhang and Yu, 2021). However, in the unique period of the COVID-19 eruption, learners across the globe went through unexpected anxiety, which may have had dire impact on their involvement and achievement in learning atmosphere and eventually their academic outcomes (Dubovi and Adler, 2022). This crisis, as it stands, accentuates the universal need to inspect the learning processes and devise the ways to support and retain students' engagement under stressful circumstances, and accordingly, Dubovi and Adler (2022) suggest that teaching approaches need to be restructured and implemented so as to minimize learners' psychological strain and maximize their participation as well as enjoyment in virtual learning.

Corbera et al. (2020) argue that academia, especially in dire circumstances like COVID-19, must nourish a culture of care, help, sharing, and fellow-feeling, to be able to refocus on what is most important, and redefine brilliance in teaching and research. Humanistic re-orientation of pedagogy respecting psychological, political, social and environmental strains can make academic practice more reverential and sustainable, both amidst critical situations and when normal ones prevail (Corbera et al., 2020).

Modifications

Xhelili et al. (2021), in Albenian Context, find that students are not well-familiar with internet-based education. So, the suggestion that follows afterword is that online teaching has to be integrated gradually, taking students' status of technological exposure into consideration, and the learning process is to be pragmatically designed by the teachers, taking into account learners' incapability, dissatis-

factions and the overall limitations as a whole. One of the remarkable transitions caused by COVID-19 pandemic in the education sector is the online assessment policy which many institutes find difficult to perform accurately as well as satisfactorily, for the existing assessment options are mostly debatable ones, like students' previous test scores, assignment scores, overall performance etc. (Wal, 2020). Prospective reconciliatory approaches can be incorporating the positive mindsets and interactions in the direct or live online classes and creating a virtual, active blended learning. A mixture of both interactive virtual classes and pre-recorded classes can result in the lively engagement of both the students and teachers, and the effective replication of onsite class experience in the digital world (Wal, 2020). Goddard (2020) suggests that co-teaching helps English Learners to feel involved in the classroom environment and lets them enhance their English efficiency in line with their peers. As such, the researcher presents, during the enervating circumstances of COVID-19 pandemic, like co-teaching in normal situation, making use of a shared virtual space, arranging consultation sessions on a regular basis, sharing assignments well prior to assessment and exam schedule etc. have helped the online co-teachers in the USA to ensure an educating setting as strong as in the usual schooling atmosphere.

Mccarthy and Wolfe (2020) have suggested engaging parents through institute-wide strategies for online instruction. Broadly speaking, they received feedback from parents regarding the already delivered online lessons, and accordingly assisted the institute in revising their teaching procedure and virtual learning plans to incorporate parents-centered and school-wise approaches that helped the learners learn at home better. Williams et al. (2020) propose that creating a support network can ensure a student-oriented response to the shift in academic environments of teacher training initiatives which COVID-19 has necessitated so far. In fact, the University of Wyoming's College of Education, USA, established a network of support and a consistent presence of the community through which it promoted continuous professional development to enable active learning in teacher education courses made inevitable by Coronavirus (Williams et al., 2020). To mitigate the multifaceted issues emerged from the abrupt shift of the mode of education due to COVID-19, Koehler and Farmer (2020) suggest digital learning plans to be used for e-learning. Their research comes up with the following suggestions for the teachers to implement effective virtual learning during the shutdown of the onsite learning mode:

i.   Identify unique features and challenges of the learning context.

ii.   Build transparent expectations as to the methods and approaches of the virtual classroom.

iii. Exhibit the procedures of e-learning and provide scopes for practice. And, last but not the least,

iv.   Share the approaches and methods of digital learning to both the learners and parents (Koehler & Farmer, 20200.

In New Zealand, they have utilized Virtual Learning Network (VLN) not only to continue distance education but also to build resilience during the COVID-19 pandemic (Lindsay & Whalley, 2020). With the coordination of the Ministry of Education, schools in New Zealand provided synchronous (real time) online classes and asynchronous (independent learning choices) to the students and teachers, which helped both the learners feel well prepared in carrying on teaching and learning amidst the widespread lockdown (Lindsay & Whalley, 2020). Flynn (2020), for online teaching, emphasizes teachers' digital pedagogical literacy to plan lessons. Initial findings of a pilot project, as Flynn (2020) presents, revealed that lessons planned through a Rhythmic Approach worked better for

the virtual classrooms and accelerated both the teachers and learners to enact dialogical interactions between them. Moreover, the lesson plans done in the Rhythmic Approach also alleviated the early obstacles relating to the hurried transition of the academic mode from in-class to online. Redmond & Henson (2020) give motivation for implementing a reciprocal remix practice of creativity among the learners in the online classes amidst COVID-19 circumstances. They suggest an equal combination of both technology use and cultivation of higher order thinking and authentic as well as innovative learning opportunities.

Absolute focus on digital skill and competitive performance, to a great extant, if not totally, creates more of physical as well as psychological pressure than learning benefits for the learners. Therefore, designing a remix classroom, a participatory learning model, where learners create their own works, share them virtually, relate the works with course contents and learning aims, and mingle creations with their expressions of individual latent talent of the cultural artifacts can result in superior academic outcome (Redmond & Henson, 2020). Greenhow, Lewin and Willet (2020) study USA's and UK's educational responses to COVID-19, in terms of initial digital pedagogy adoption, and found that the suggested educational responses were digital pedagogy, parents-as-teachers policy, digital equity and renewed education strategy. Among the COVID-19 pedagogical adoptions, found by Greenhow, Lewin and Willet (2020), in US and UK school settings, the most notable ones are synchronous sessions of interaction between teachers and students, decreased focus on rigorous assessment, moderate attendance expectation, minimized workload for teachers, creation of state fund for both teachers and learners and disbursement of necessary fund.

In Turkish educational setting during COVID-19 closure of academic institutions, TV broadcasts of lessons and textual discussions have been found to be supporting students' learning and providing psychological support (Erümit, 2020). Besides broadcasts, one of the televisions in Turkey, as mentioned by Erümit (2020), has its own educational portal which provides the learners easy access to academic materials, discussions and explanations, which, certainly, help the learners particularly in the present context. Synchronous lessons have proved more effective since they can endorse social interaction, conducive atmosphere and chances for the learners to ask and/or questions, and receive answers as well (Erümit, 2020). Distance learning, in a critical time emitting psychological stresses to the learners, requires flexible as well as accessible learning approaches, for which teachers can use both digital and printed stories and texts to establish connection with the learners and their families (Semingson, Owens & Kerns, 2020). Zhanf, Yan & Gronseth (2020) recommend adding flexibility to the curriculum and implementing student-directed assessment for online education during the Coronavirus pandemic. In the new normal teaching and learning setting, manners of instruction need to harmonious with the multifarious backgrounds and learning necessities of the learners, basically, when they are almost imprisoned at home and, as such, have limited access to learning resources (Zhang, Yan & Gronseth, 2020).

Shelton et al. (2020) recommend enacting critical humanizing pedagogies in online teaching and learning, and likewise, resisting dehumanizing assessments. Accordingly, the researcher applied novel technologies to effectuate *critical humanizing pedagogies*, which include inspiring beyond solely cognitive approaches as well as reflexively denoting issues of abilities, affordabilities and social backgrounds. By *critical humanizing pedagogies*, Shelton et al. (2020) mean a considerate approach to online assessments, that emphasizes meaningfulness balanced with social realities and, accordingly,

engages multimodality. Fox (2020), for virtual classroom, suggests bidirectional pedagogy where lessons and classroom practices are shared with both students and their guardians at home. As a result, teachers come to know the details as to the families' storage of knowledge as well as home education practices, and thus, can assimilate how the families of the learners can also contribute to their learning improvement. Grandolfi and Kratcoski (2020), during the pervading closure of face-to-face education. Formosinho (2021) suggests, in a metaphoric way, for the schoolification of parents and guardians of the learners for effective learning during COVID-19.

Teaching English

English language teachers, like those in other branches of studies, have found webinars to be an effective medium to reach teachers from all over the world, especially, English teachers who have a common language for both communication and instruction (Shin & Borup, 2020). Webinars are an improved online platform for the audience across the world, offered for free, and activated to use immediately to respond instantly to the needs of the teachers of English (Shin & Borup, 2020). Grandolfi and Kratcoski (2020), during the pervading closure of face-to-face education, focused on pedagogies, practices and educational technologies, and ended up developing a Community of Practice (CoP) that mobilized more concerted attempt to engender solutions for shared challenges and upgrade professional learning. When there exists a plethora of learning technologies in abundance, choosing the most suitable technological modes and sharing the best practices can ensure fruitful online teaching amid the COVID-19 crisis (Gruber & Bauer, 2020). Gruber and Bauer (2020), regarding foreign language classes in the remote learning arrangement, emphasize that they have to be synchronous online class sessions and their facilitators are to implement interaction and virtual socialization so as to let the learners practice the target language as in real-life reciprocity.

Among the most pressing issues in terms of teaching-learning during the pandemic propelled instruction mode are comprehension of learning content, student engagement, and internet connectivity, which many ELF learners found as disadvantages (Tarrayo et al., 2021). Although Tarrayo et al. (2021) mentioned a couple of advantages of virtual teaching and learning, namely convenience and enhancement of teaching and learning, they suggested some significant reformations in foreign language learning, such as: planning, implementation, and monitoring of institute administration; provision of adequate internet and technological resources; and capacity-building and trainings. Virtual teaching during COVID-19 can have disparate implications and realities for male and female teachers, and so the emerging technologies incorporated in teaching and learning need to be put to function with a conscious outline respecting gender identity too (Emelogu et al., 2022). Online lessons necessitate motivations for both teachers and students as to their physical as well as psychological betterment, and thus they the imperativeness of carefully selecting and modifying the pedagogical formats and objectives (Nakata, 2022).

The objectives of the research include finding as well as presenting the realities of English language teaching during the countrywide shutdown of educational institutions and, as such, the stoppage of in-class education due to the COVID-19 pandemic. Concurrently, it seeks to unearth the sorts of adaptations and improvisations the English language teachers of the country devised for continuing teaching through virtual classroom during the deadlock. Likewise, it pursues to know the changes

and modifications the teachers made in their pedagogical techniques and execution in line with the demands of the new normal circumstances. Accordingly, the research also ventures for being abreast of the efficacies the technological adaptations and pedagogical modifications really brought into existence in the field of virtual teaching.

Thus, the questions that the research attempts to seek the answers to are the following:

a) What is the semblance of virtual ELT teaching and learning amidst the COVID-19 pandemic in Bangladesh?

b) What technological adaptations and improvisations have the ELT teachers made to cope with the online teaching?

c) What changes and modifications have the ELT teachers made to their traditional pedagogical practices for effectively serving the purpose of the online teaching?

2. Method

This research applied the mixed methodology having a careful combination of both qualitative and quantitative methods to conduct the study. Mixed methodology performs as an efficacious paradigm for elaborate as well as all-consuming considerations in a research pursuit where the researcher(s) aims to unearth both the outcomes of the population and the reasons of such findings (Shannonhouse et al., 2017). Moreover, the quantitative methods come with decisive outcomes whereas the qualitative methods engender profound as well as explanatory discernment of the researched phenomenon (Shekhar et al., 2018). On top of these two widely-practiced methodologies, the mixed methodology singly makes sure the conveniences of the two approaches by uniting them in a single initiative, which helps the research to be comprehensive in relation to both its regulatory attempts and explicatory articulations (Shekhar et al., 2018). With such affirmative regards, we chose the mixed method approach to accomplish the current research.

The researchers served an open-ended questionnaire to the populations, which contains the questions resonating the objectives of the research. In social science researches, open-ended questionnaires provide some significant advantages, like they are convenient for knowledge measurement, offer an infinite magnitude of possible perspectives on the questions, help avoid unnecessary notions and options, and they serve as a cognitive pre-testing (Züll, 2016). Although Reja et al. (2003) find both close-ended and open-ended questionnaires, in terms of use and popularity, equal and applicable, they infer that an open-ended question creates a much more assorted set of answers, and supplies more missing data than a close-ended one. The selected population gave detailed answers to the questions, and the researchers, subsequently, labelled as well as categorized the responses for analyzing the data. Accordingly, as in-depth analysis of the problem was done in the findings and discussion sections.

We sent the questionnaires through email, Messenger App, Zoom Cloud Meeting, and WhatsApp to 30 teachers of English language from various private and public universities of Bangladesh, out of which only 12 ELT teachers (4 from Pundra University of Science & Technology, 2 from Dhaka International University, 2 from European University of Bangladesh, 2 from Northern University Bangladesh, and 2 from Varendra University) responded. The sample was selected applying the simple random sampling method so as to ensure the reliable representation of the population.

The research collected qualitative data through an open-ended questionnaire which was sent to the sample populations via, mostly, online communication media like email, Facebook Messenger, WhatsApp and Zoom Cloud Meeting. The selected population was also contacted through mobile phone communication, and subsequently, the responses were received through.

3. Results and discussion

The results are presented in the following table:

Table 1. Technological devices used for teaching English amidst COVID-19

Serial Number	Technological Devices Used for Teaching English amidst COVID-19	Percentage
1.	Laptop	83.33%
2.	Smartphone/Android phone	66.66%
3.	Desktop computer	16.66%
4.	Whiteboard	16.66%
5.	Smartphone Camera	33.33%
6.	Headphone	33.33%
7.	WIFI device/WIFI Router	33.33%
8.	Camera Stand,	16.66%
9.	Laptop camera	16.66%
10.	Digital stand	16.66%
11.	Notepad	16.66%
12.	Digital Writing Pad (XP-PEN)	16.66%
13.	Modem	16.66%

Table-2: Apps/Software Used for Teaching English amidst COVID-19

Serial Number	Apps/Software Used for Teaching English amidst COVID-19	Percentage
1.	Zoom Cloud Meeting	100%
2.	Google Classroom	33.33%
3.	Google Drive	16.66%
4.	Facebook	75%
5.	You Tube	50%
6.	WhatsApp	33.33%
7.	Messenger	50%
8.	Email	41.66%
9.	Stream Yard	16.66%
10.	Google Meet	41.66%
11.	Google	58.33%
12.	Telegram	16.66%
13.	Opera Beta	8.33%
14.	NCTB Books	8.33%
15.	Bangla Dictionary	16.66%
16.	OALD (Oxford Advanced Learners' Dictionary)	41.66%
17.	Foxit Reader	33.33%
18.	Google Chrome	66.66%
19.	Adobe Acrobat Reader	50%

Table 3. Websites the ELT teachers have taken help from to teach during COVID-19

Sl. No.	Websites	Percentage
1.	Google (Search engine)	50%
2.	Marriam Webster Dictionary	25%
3.	Google form	33.33%
4.	Wikipedia	41.66%
5.	tophonetics.com (for pronunciation)	8.33%
6.	kahoot.com (for quiz & multiple-choice questions)	8.33%
7.	academia.edu	41.66%
8.	libgen	8.33%
9.	Google translate	16.66%
10.	Banglapedia	8.33%
11.	The Financial Express	8.33%
12.	National Geography	8.33%
13.	Muktijoddha Archive	8.33%
14.	Bangladesh Tottho Batayon	8.33%
15.	Different sorts of websites	66.66%

Table 4. Technological Adaptations the ELT Teachers have Made to Teach during COVID-19

Sl. No.	Name of the Device/Apps	Earlier Uses	Uses During COVID-19	Percentage of Users
1.	Notepad	To write things, keep records, and to draft things	To demonstrate writing through digital mode	25%
2.	Google	To browse and exert information regarding various issues for personal use	To browse and learn for the purpose of collective teaching materials	75%
3.	Google drive	To store documents, data and information	To provide the learners an access to the instructional documents, data and information	33.33%
4.	Laptop	To type documents like CV and cover letter, to watch movies, to listen to songs, to browse internet	To prepare lessons, teaching materials, instructional videos and share through online media the teaching materials to the students	100%
5.	Smartphones	To make calls, receive calls, send messages, receive messages, take photos and selfies, to listen to songs, to browse internet etc.	To record class lectures and upload them on learning platforms, to communicate and browse for academic purposes etc.	100%
6.	Messenger	To conduct person to person communication, and to socialize	To make and join in academic groups, upload teaching materials and communicate with the learners regarding their study	75%
7.	Zoom Cloud Meeting	It was not familiar and used earlier	To conduct online classes, virtual tests, and to give feedbacks on the assessment	100%
8.	Digital camera	To shoot photos and record videos	To record class lectures and use them in live or blended teaching sessions	58.33%
9.	YouTube	To watch videos	To watch and learn from the academic videos, and to upload instructional videos for the learners	41.66%

10.	Facebook	To give status, write comments, watch videos, read news items etc.	To make and join academic groups, and upload teaching materials, and to conduct Facebook live classes	66.66%
11.	Soft copy materials	Hardcopies were used earlier	Softcopies of learning and teaching materials are sent and shared through online paths	75%
12.	NCTB Books	Hard copies of NCTB books were used	Soft copies of NCTB books are downloaded and used for teaching	16.66%
13.	Telegram	Not used earlier	To communicate with the students for teaching purposes	8.33%
14.	Power point	Earlier it used to be used mostly in seminar presentations	To demonstrate teaching materials to the learners virtually while conducting classes	41.66%

As to the English language teachers' satisfaction regarding the existing technological devices and their uses, majority of the teachers participating in this research responded with affirmative feedback although many referred to some known pressing issues related to internet, training and updated devices, like lack of smooth internet connection, need for training on virtual teaching for many aged faculty members, and upgradation of earlier versions of computer and related devices. Likewise, maximum of the population of the research found satisfactorily effective the technological adaptations they devised for making English language teaching fruitful amidst the Coronavirus pro-pelled new education mode.

Table 5. Suggestions for Additional Technological Innovations and Adaptations

(i) If handwriting on digital board could automatically be transformed into Word file.	(ii) Free Apps like Zoom	(ii) Faster internet service
(iv) Uninterrupted Zoom performance	(v) Zoom sessions without time limitations	(vi) More effective Applications to monitor the students properly
(vii) Lighter version of Zoom	(viii) Built-in Teaching Apps in Android phone	(ix) Better Zoom resolution
(x) If WhatsApp and Messenger had a teaching platform like Zoom	(xi) Effective Apps and software for virtual assessment and script checking	

Table 6. Pedagogical Modifications for Teaching English amidst COVID-19

SL. No.	Before COVID-19	During COVID-19	Percentage of Teachers Modifying thus
1.	TPR (Total Physical Response)	No TPR, only presentation	41.66%
2.	Interactive classes	Monologue/one sided lectures	50%
3.	Strict assessment on hard copies of answer scripts	Lenient assessment on soft copies	58.33%
4.	Class control/teachers' talking time (less)	More teacher's talking time	33.33%
5.	More students' class participation	Less students' class participation	50%

6.	Sufficient contents	A bit limited content	16.66%
7.	Automatic class control	Technological class control (Suddenly muting somebody for convenience)	25%
8.	More friendly/less strict class control	A bit strict class control	41.66%
9.	Performing only as a teacher	Thinking as both a teacher and a student	8.33%
10.	Normal temperament	Being more patient	75%
11.	Teaching lessons as they were	Making lessons easier	50%
12.	Liberal about time	Time conscious	33.33%
13.	Need study as usual	Need more study	8.33%
14.	Direct offline classroom setting with adequate teaching staff	Virtual classroom	58.33%
15.	Oral and written lecture-based	Lectures with soft copies of teaching materials through screen share	41.66%
16.	Huge classroom with an excessive number of students	Online class with fewer students	16.66%
17.	Direct attention to each and every student	Technology-based attention to the students	25%
18.	Physical presence of the students was assured	Students IDs might be there, but some would remain absent albeit showing their presence	33.33%
19.	More time was spent for class maintenance, roll call and class discipline	Class maintenance is quite easier	16.66%
20.	Needs to be physically and mentally prepared before entering the offline classes	As the classes are casual, and the students' participation is also casual, teachers feel both mentally and physically relaxed	16.33%
21.	Could cover fewer topics in offline classes	Can cover more topics in virtual classes since they are mostly one-way teaching	8.33%
22.	Less enjoyable than virtual class	More enjoyable than onsite class	8.33%
23.	Focusing on paper-based assessments	Focusing more on virtual assignments, MCQ, fill in the blanks or short questions in order to assess the students' progress.	41.66%
24.	Earlier it was classroom teaching and assessment.	Assessing students through oral tests, audio-visual live presentations, sharing audio-visual materials and PowerPoint presentations	50%
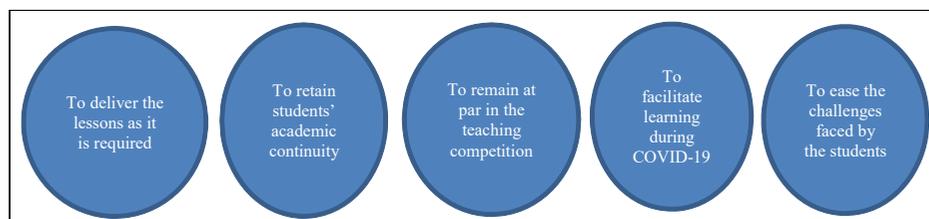
Figure 1. Purposes for Pedagogical Modifications

Most of the English language teachers responding to the questions of this research, in terms of the effectiveness of pedagogical changes and modifications they had made, apprised that they had found them remarkably effective though a few of them had encountered some challenges like learners' unwillingness in virtual classes. Nevertheless, the teachers are sanguine that in course of time, if online education goes on, learners will be accustomed.

Table 7. Suggestions for Additional Pedagogical Modifications

Sl. No.	Suggestion for Additional Pedagogical Modifications
1.	More PowerPoint presentations than Word-file teaching
2.	More study to fill the gap of the absence of in-class education
3.	More time for teachers to study and prepare
4.	Virtual learners should respond more and better.
5.	Online affordability for all the students
6.	Providing the learners with adequate slides and hand notes apart from virtual class lectures
7.	Encouraging the students repeatedly to attend the online classes as much as possible
8.	Paraphrasing and interpreting the texts comprehensively
9.	Seriousness of the teachers and students regarding attendance and attention
10.	Focusing on more online presentations, interviews and viva voce may be helpful for the teachers to teach English better.
11.	The teacher has to be fully aware of his limitations. He can also provide the students texts that are available online and can be easily downloaded. He must try to engage every student in his learning tasks.

Discussion

The unavoidable impact of COVID-19 on education system was a challenge to the whole world, and Bangladesh was no exception. Teachers needed to make a drastic change in education system with the help of modern technology and networking devices. The findings of the research show, sequentially, how modern technology and networking devices like computers and smartphones replaced the classroom education system with online education system. Apps like Zoom Cloud Meetings and Google Classroom functioned like the virtual classrooms. Even a social medium like Facebook played a vital role in our education system during COVID-19 pandemic.

There is no denying the fact that our education is now inseparably connected to the Internet and modern technologies, especially those connected to Information and Communication Technology (ICT). This is the fact which was strongly felt during COVID-19 pandemic—teachers googled topics of different subjects, read and downloaded pdfs, epubs, and shared them with students. They browsed different websites connected to education and learning like Wikipedia, academia.edu, etc.

The COVID-19 impacts on education made our teachers use their everyday electronic devices like laptops, smartphones, digital cameras in the ways more suited to our online education during COVID-19 pandemic. Their adaptation of various social and entertainment websites like Facebook, YouTube show how teachers tried their best levels to cope up with the crisis. Devices and technologies which had long been used primarily for entertainment and social networking thus became essential

things for education, for instance – 16.66% teachers started to use pdf copies of NCTB books. Although the percentage is small, it hints at a new idea of books and the experience of reading, which have all the possibilities to change the traditional education system radically if it is necessary.

Suggestions from teachers for additional technological innovations and adaptations clearly hint at the inefficiency of the online education system: their want of a free app which may allow them to continue their class without any interruption as happens when using the free version of Zoom Cloud Meetings. Their want of an inbuilt app on smartphones shows how much they suffered on the one hand, and on the other, how much a smartphone or a computer can act as an essential device in modern education system, a device with all the potentials to change the long-lasting idea of education by giving lectures in the physical classrooms.

Our recent experience of online education also shows how teachers may adapt with technological devices to create a new dimension of modern education system. The traditional pedagogy went through a big change: real-time physical gestures and interactions in the classrooms were replaced by video presentations created with extra focus and care. But here the teachers lost the Total Physical Response, interactive classes; because in most cases, they felt bound to continue giving one sided lectures which often seem to be boring monologues, for in most cases, the network of some of the participants, be it the students or the teachers themselves, was very poor, and the students remained silent with their microphones turned off. For such reasons, lenient assessments of soft answer scripts took the place of strict assessments on the hard copies of the answer scripts.

Suggestion from teachers for additional pedagogical modifications to make online classes more effective and less monotonous include using more PowerPoint presentations than Word-file teaching, ensuring interactive discussion and frequent responses from the students. Most of the teachers are of the opinion that the internet should have been affordable for every student; and students must be engaged directly though virtually in the learning process.

4.   Conclusion

One of the remarkable limitations of this research is its small number of sample population which could not be selected in a sufficient number due to the country wide shutdown incited by COVID-19 pandemic. A representative number of samples would make the research more reliable and comprehensive. The COVID-19-forced novelty in teaching demands that the traditional ELT theory and research trends need to be refurbished, and sociopolitical concerns should be re-considered in a healthy manner (Mirhosseini, S. (2022). Effective English language teaching, like teaching any other branch of knowledge, requires to be ensured through solving the technology and internet – related issues prevalent across Bangladesh, and, simultaneously, teachers along with the learners need to nurture unavoidable pedagogical and learning reformations (Hossain, 2021).

Positively seen, although COVID-19 pandemic brought havocking effects on various sides of human life across the world, it introduced as well as reinforced educational technology as an opportunity for teachers, learners and stakeholders to accelerate education virtually. The study apropos of technological use in virtual teaching brought to notice a number of solvable issues like shortage of technological tools, insufficient parental support for active participation of students, trial and error

to adopt technical tools to virtual mode of teaching and abrupt paradigm shift without methodical training, little time space to adapt to the paradigm shift, planning, and executing classes, learners unwillingness to give in to the sudden learning mode, and after all, unaffordability of many of the learners to have necessary updated technological devices at their possession (Alimyar & Lakshmi, 2021). Since COVID-19 almost imprisoned people into unusual life practices, especially in academia, the concerned people need to foster humanistic attributes in greater volume caring for the psychological realities of both the teachers and students (Corbera et al., 2020). Likewise, teachers feel the urgency to act carefully for the psychological well-being of the learners in terms of teaching English in a suffocating time like COVID-19. As such, all the people in connection with teaching and learning are demanded to effectuate technology in the most fruitful manner and re-arrange pedagogical techniques to help the learners assimilate the most.

5.   Acknowledgements

6.   References

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