

Tertiary pedagogical experiences of the university students of Bangladesh during and after the COVID-19 pandemic

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Abstract

This study has tried to explore the tertiary-level pedagogical experiences encountered by the university students of Bangladesh during and after the COVID-19 pandemic. Based on the Theory of Dialogic Action as its theoretical framework, this paper has explored the pros and cons of the tertiary-level pedagogical policies taken by the universities during the COVID-19 pandemic. In search of these queries, authors have conducted in-depth interviews of 25 students from five different universities who were students at their universities, before, during, and after the COVID-19 pandemic, and the saturation of data has been achieved. The authors have developed five themes from their responses that focus on the challenges faced, the lack of training for faculties and students, the issue of online exams, digitization and classroom engagement, and the student-faculty communication to find the answers to the research questions. The major findings of the study are: i) the scenario of tertiary level pedagogy in Bangladesh could have been better planned and better executed during the COVID-19 pandemic if necessary training sessions were organized for both students and faculties of the universities along with solving logistical crises of various capacity, which eventually led to the digital divide and information inequality; and ii) a changed pattern of communication has been developed during and after the pandemic among students and faculties where diverse communication media are now being used and are considered as an accepted norm for interaction; however, the declined classroom engagement demands further studies regarding the actual consequences of this changed communication pattern.

Key-words: tertiary pedagogy, university students, universities of Bangladesh, pandemic and education, COVID-19

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Introduction

COVID-19, an unprecedented global pandemic, emerged in late 2019 causing health, economic, and social disruptions worldwide. Much like the other sectors, the education sector faced a sudden transition from the traditional face-to-face teaching to distant learning platforms that significantly affected tertiary pedagogy. Most of the universities and colleges of the world, including Bangladesh, had to shift to online teaching methods, which came with both challenges and opportunities for educators and students worldwide (Marinoni et al., 2020). This shift towards online learning, exposed and widened existing inequalities, as not all students had equal access to the necessary technology or stable internet connections during that time (Crawford et al., 2020). In Bangladesh, the digital divide became particularly evident, with many students in rural and underprivileged areas struggling to participate in online education. The pandemic highlighted the need for robust digital pedagogies that could support effective online learning. Educators were forcefully required to develop new skills and adapt their teaching methods to engage students virtually (Bozkurt et al., 2020). This shift has led to a re-evaluation of pedagogical approaches and the adoption of blended learning models combining online and in-person teaching (Bao, 2020).

During the pandemic, the educators were bound to go along with the sudden change in the academic culture and adopt e-resources (Nagi & Bojiah, 2020). Technological advancement was viewed as a solution to keep the tertiary-level education from disrupting the flow and educators had to adapt quickly to these new forms (Daniel, 2020; Sharkova, 2014). Although some academics expected the pandemic as a chance for “positive shift towards e-learning”, it has significantly disrupted the system worldwide including Bangladesh (Mahalakshmi & Radha, 2020). The full impact of pedagogical practices on learning outcomes remained largely in uncharted territory, with a dearth of comprehensive research and empirical studies to guide educators. This gap in knowledge hinders the ability to refine teaching methods and fully understand their effectiveness in diverse settings. Consequently, there is a pressing need for systematic investigation into pedagogical strategies to inform evidence-based educational reforms.

This study aims to address the multifaceted impact of the pandemic on Bangladesh's tertiary pedagogy, raising issues, such as the unpreparedness of educators, the feasibility of online examinations, the balance between digitisation and classroom engagement, and the dynamics of teacher-student communication. The findings of this study will add valuable insights to the current body of knowledge by highlighting the distinct educational challenges caused by the pandemic. Moreover, the findings of this study can play a significant role for policymakers, educators, and students in Bangladesh by informing the development of strategies and policies that address the specific needs of the country's tertiary education system in situations like pandemic

Tertiary pedagogical experiences

and disasters. Additionally, the study proposes a reference for adapting necessary measures in tertiary education to unprecedented global crises. To achieve these targets, authors have taken the following research questions into account,

RQ1: How do the university students of Bangladesh evaluate their overall pedagogical experiences during the COVID-19 pandemic?

RQ 2: How do they evaluate the examination process undertaken during the pandemic?

RQ 3: Are there any differences in the tertiary pedagogical practices experienced by the university students of Bangladesh during and after the pandemic?

Tertiary pedagogy

Tertiary pedagogy is the methods and strategies used in the higher education set-up, specifically in universities and colleges, often involving lectures, collaborative work, research projects, and practical applications of skills, with a strong emphasis on student engagement and active participation in the process of learning. Pedagogical practice such as flipped classrooms invert traditional methods of teaching by delivering online contents outside of the classroom and utilising class time for interactive activities, which can lead to improved student performance (Bergmann & Sams, 2012). And digital pedagogies, which encompass a range of teaching and learning strategies using digital technologies, are crucial for developing digital literacy and preparing students for a technology-driven world (Beetham & Sharpe, 2019).

Although traditional lectures are a predominant teaching strategy, passive learning through long lectures can deprive students of rich educational experiences. The motivation for shifting to flipped classrooms was to sustain students' interest in traditional method and retain the most from the contents (McLaughlin et al., 2014). Fisch (2012) stated Jonathan Bergman and Aaron Sams as the pioneers of this pedagogical methodology (Bergmann & Sams, 2012). It was found that the students began to interact more in this method, specifically when the lectures were posted on YouTube, and the students were required to complete different activities online, allowing more time in the classroom for mock exams and debriefing (Mok, 2014). Bergmann and Sams (2012) explored three stages of the flipped learning design: pre-class, in-class, and after-class. In pre-class, students work on the online material by accessing the contents (National Research Council, 2000). Students who performed their pre-class activity accurately were better prepared and more confident during in-class activities (Mok, 2014). Then, in the in-class stage, they practice group activities, simulations, and presentations (Kim & Jang, 2017; Herreid & Schiller, 2013). Finally, in the after-class stage, application and self-evaluation take place on the acquired knowledge of them (Kim & Jang, 2017). Technology integration facilitated students to learn without the time and space

constrains, in group or individually (Purnomo et al., 2019; Jou et al., 2016). This model can also improve students' engagement with the course materials, leading to more effective learning experiences, particularly for comparatively weaker students (Mok, 2014).

Students in flipped classrooms must spend more time learning online because of its relation to active learning (Green & Schlairet, 2017). This highly personal learning method is associated with student autonomy, where they decide their way of learning, resulting in more active participation and expressing openly and confidently (Nagi & Bojiah, 2020; McLaughlin et al., 2014; Prain et al., 2013; Schutte, 1995). Integrating synchronous online learning also improves students' ability to interpret information and analysing capability (Hasanah & Malik, 2020; Lestari et al., 2019). It allows them to perform better with increased scope of repeating the same tasks in familiar circumstances and feedback (Hodges et al., 2020; Lux et al., 2007). Moreover, this flexible access to content helps provide a base for lifelong learners (Sharkova, 2014).

According to Hatcher et al. (2014) and Hermanns et al. (2015), students prefer blended learning when initiated effectively and receive the same quality of education as traditional classes. Effectively, it certainly means the lecturer/facilitator must provide facilities (such as e-books, voice notes, and tutorial videos) for students to study at home; their role is to create an environment where the students can connect with new information (Hasanah & Malik, 2020; Iskru & Schulz, 2020). These smart tools are proven to bring in a versatile learning experience that has a positive effect on the students and learners. Wang (2018) discovered increased intensity on the volume of using online resources for pedagogical concerns (Nagi & Bojiah, 2020). When the conditions are met, online classes can be successful, and GPA is a predictor of performance in both modes of pedagogy (Hatcher et al., 2014).

However, when some students do not follow the pre-class stage, they suffer through all stages, which may result in frustration (Green & Schlairet, 2017). The phenomenon is common among students more adapted to teacher-centric study models, where students and teachers usually have a comparatively low vehemence for the flipped/blended classroom method at the initial stage because ensuring skills like team building, leadership, body language, etc. are quite challenging to incorporate through online classes (Nagi & Bojiah, 2020; Tune et al., 2013). To adapt better to the new, there is a need for changes in the current model of teachers' training, as there are still many questions on how to bridge the gap between both learning methods (Szczyrek-Boruta, 2014).

COVID-19 and its Impact on Education

During COVID-19 pandemic, schools and universities had to cease all face-to-face activities, and distant learning was considered as the ‘new normal’ of the global pedagogy (Sahbaz, 2020). This scenario affected the 2019-20 academic year, and 2020-21 as well in most of the cases as well. Universities, during this time, had to continue their activities with the means at their hands. In many cases, teachers often had to complete courses without going through all course contents (Camilleri, 2021). Countries with weaker economies, like Bangladesh, have gone through severe food and health problems amplified by the pandemic, which massively impacted university-level education (Mendonça, 2020). For countries that are more advanced digitally, the transition was rather swift. For example, the top 25 universities in the USA replaced face-to-face education by declaring an emergency eLearning at about the same time as March 2020 (Murphy, 2020). But for many of the developing countries, the situation was difficult. A significant section of higher education in South Asia was not conducted using digital support because the resources for distant learning were limited to them due to the digital divide.

The digital divide is the gap that occurs between those who have access to newer technologies and those who have not due to various factors such as race, economic status, age, gender, education, and geographical location (DiMaggio & Hargittai, 2021). The divide is concerned about both the availability of ICT infrastructure and the ability, confidence, and experience to use those technologies effectively (Van Dijk, 2012). Little attention was paid to the fact that there was uneven broadband capacity and student access to required technologies. Students from poor financial circumstances were less likely to undertake online study due to the digital divide. The availability of academic resources did not lead to satisfactory integration because having to use older and outdated devices also caused problems accessing online resources, and they determined the attitude of the users toward these technologies (Beaunoyer et al., 2020; Instefjord & Munthe, 2017; Petko, 2012). Although the free access opportunity from platforms like Zoom, Teams, or Google Meet did allow students to attend online classes and access resources online in theory, the experience has been fairly different (Sharma, 2020). Naturally, the consequences of online classes have been different according to the students’ socioeconomic backgrounds. Students without sufficient logistic support, uninterrupted internet access, or a non-shared room were the mostly affected by the transition to distant learning.

On the other hand, the pandemic has brought challenges for teachers as well (Hodges et al., 2020). Infrastructural gaps between different parts of South Asian countries, result in discrepancies in internet speeds, causing a lack of access to the internet and advanced communication devices (Jalli, 2020). Also, the costs of internet packages have been reportedly challenging for teachers as well in many developing countries (Broom, 2020). The educators faced mostly external barriers like lack of logistic and technical support, and necessary

trainings, rather than internal ones such as school cultures, teaching and technological belief, and open mindedness towards change (Snoeyink & Ertmer, 2001).

For online education to be effective, it requires a bit of time to build the system as an overall ecosystem is necessary to support students as effectively as face-to-face education (Hodges et al., 2020). However, during emergency situations, online or blended education has to be flexible, and it needs more communication and flexibility than any other situation because of its uniqueness to the novel circumstances (Aguilera-Hermida, 2020). And it has to be taken into consideration that it was a very new experience for students and teachers. More importantly, there was another shift from online to face-to-face learning after COVID-19 pandemic. As a result, both teachers and students had to go through a new setback due to changes in teaching criteria and methodologies during the shift to online. In some cases, they returned to the previous style of teaching, altogether abandoning the newly adapted ways, and in others, they incorporated them with modification (Aretio, 2021).

COVID-19 and Tertiary Education in Bangladesh

Unlike other countries, COVID-19 pandemic has affected each and every segment, from primary to tertiary level of the education sector of Bangladesh. The countrywide shutdown measures created severe challenges for the pedagogical stakeholders. According to Khan et al. (2020), the significant challenges faced by teachers in Bangladesh during the shift to online teaching were related to access to resources and their affordability, equity, technological competence, pedagogy and materials, assessment, and various psychological factors. It has been repeatedly stated that teachers and students of rural areas of Bangladesh did not have proper internet access (Bhuiyan et al., 2021). Moreover, teachers in Bangladesh enjoyed a modest salary structure and it was difficult for them to bear the required expenses of online classes (The Daily Star, 2020).

Besides, Shafiq et al. (2021) found that specifically the students of Bangladeshi public universities experienced stressed situation because of their financial crisis to continue online classes and increased session jam, whereas private university students experienced stress because of high tuition fees and uncertainties of academic activities online. According to Al-Amin et al. (2021), lack of preparedness, participation, and less scope of classroom activities were the primary challenges faced by Bangladeshi students while transitioning to online classes during the pandemic. Additionally, lack of uninterrupted electricity and internet service, inability to paying attention, and not understanding lessons properly through online classes were constant problems of online learning in the developing countries. As a result, some teachers and students were not convinced by the possibilities of online learning, especially in courses that involve much practical works (Khan & Abdou, 2021).

Theoretical Framework

This study intends to explore the tertiary pedagogical experiences of the university students of Bangladesh during and after the COVID-19 pandemic from the students' perspectives. Therefore, this study has taken the Theory of Dialogic Action of Paolo Freire as the theoretical framework. According to Freire (2005), oppressed people can win over their sufferings through the power of words and dialogues. To overcome the problems of pedagogy, the dialogic method should be implied instead of a banking system of pedagogy where faculties are considered as only givers and students as receivers without any dialogical involvement. Freire (2005) insisted that a dialogic system of education can ensure cooperation, unity for liberation, organization, and cultural synthesis instead of conquest, divide and rule, manipulation, and cultural invasion as consequences of anti-dialogic pedagogical actions, hence dialogical action can be stated as a philosophy of praxis. As the role of Freire's Theory of Dialogic Action is vital to give voice to the people who are traditionally not placed within the framework of participating in dialogue and making decisions (Ramis, 2018), this theory aligns with the goals and objectives of the present study as it has also tried to explore the perspectives and assessments of the university students about a special circumstance of their pedagogical experiences, which is quite unusual in the pedagogical practices of Bangladesh.

Methodology

The study has used a qualitative research design and, in this case, by in-depth interviewing of 25 tertiary-level students from five different universities. Respondents were selected from both public and private universities of Bangladesh: University of Dhaka, Jahangirnagar University, Bangladesh University of Professionals, North South University, and BRAC University, depending on the criteria that they are currently enrolled in a tertiary-level program and have experienced pre-COVID-19, during COVID-19 and post-COVID-19 university education. Hence, purposive and convenience sampling has been used to select the respondents. Respondents of the study came from 18 different majors and their average age was 23.5 years with a standard deviation of 1.041 years. All the interviews were conducted online and the length of each interview was 35-40 minutes. The semi-structured interviews focused on the student's experiences with university education during and after the pandemic, specifically exploring changes in the processes of teaching and learning, challenges faced, and the effectiveness of remote learning.

Five different themes have been developed from the responses after theming the acquired data using the basic categorization technique, where the first two themes address RQ 1, the third one addresses RQ 2, and the last two themes address RQ 3 of current study.

Findings

New Challenges Coupled with Ongoing Uncertainty:

The responses from the interview participants were mostly similar in terms of the situation being a bad experience for them. They used terms like ‘horrific,’ ‘traumatizing,’ ‘challenging,’ ‘horrible,’ ‘stressful,’ and ‘hard’ to describe it. This situation cost university students’ session jam from six months to two years. According to the respondents, most of the university’s authority started their online activities lately, took unnecessary time to decide, and due to this time loss in introducing online classes, many of the topics were not covered under the courses concerned.

While online classes were not exciting in general, for some, they posed as very engaging because they got to talk to their teachers directly. Increased efficiency and use of technologies were seen among students and teachers. But, getting study materials was a struggle for many students. A slow internet speed, lack of devices, and load shedding were common challenges students faced during online academic activities. However, a number of students had good internet connections and access to devices the entire time. During the online exams, many students confessed to using unfair means. There was also a pattern of piling up their lessons until the night before the exam, which eventually became another challenge for them.

Most students shared that it was difficult to pay attention during online classes. Continuous online courses caused headaches, sleeping disorders, and other physical problems. Most importantly, this situation had created a significant impact on the mental health of the students, projecting how tough it was for them.

A Battle Fought by the Untrained

Respondents of the study showed frustration with the slow decision-making process of the university authorities. According to them, there was much more that the authorities could do. This slow decision-making caused them a lot more than it should. Students lost academic years, job opportunities, etc. Even the classes were rarely helpful. Participants suggested that arranging training for the teachers and even for the students could have been a lot of help. There were incidents of students helping their teachers with new technologies or tools to improve academic activities.

But this was not the entire picture. Respondents also mentioned that their teachers did a lot from their side; they were friendly, took extra classes and mock tests, and even extended deadlines for academic submissions. Some universities provided financial support or loans to students to buy devices and internet packages. Many teachers helped students personally as well and showed humanity. Students of the 2017-18 and 2018-19 sessions from a public and a private university, respectively stated,

Tertiary pedagogical experiences

Once I forgot to upload the actual exam paper during one of the finals, and after two days I found out about it and requested the faculty to let me submit the actual paper. With very minimal supporting proof, the faculty allowed the resubmission.

I have submitted quiz 3's answer script for quiz 4. He called before the grade submission and asked me to submit the correct one. He did not deduct any marks for this.

But many students have faced rude and unkind behavior from their faculties during that period as well. A 2017-18 session student of a public university recalled such an experience as following,

One of our faculties was extremely rude to the students when they failed to provide a proper presentation due to internet connection issues and blamed them for the lack of preparation.

On a macro level, some universities of the country initiated Learning Management Systems (LMS) like BUX and Canvas to incorporate students with the best possible platform during a crisis. These LMSs were used mainly by private universities, and they were designed to facilitate online education. They provided a centralized system where teachers could organise course materials, assignments, and quizzes and track students' performances. Students could also access them for classes, study materials, and submissions.

Respondents pointed out that some public university teachers did not take classes in their universities regularly during the pandemic but frequently took courses in private universities where they performed as adjunct faculties. Some of the private university teachers just spent the class hours and did not take any initiative to make the classes worthwhile, respondents added. Some faculty members used to take classes whenever they wanted. One of the respondents of the 2017-18 session from a public university said,

It is one thing to miss one or two schedules, but to miss them repeatedly is not okay at all, in my opinion, as you just have to join them from your home.

Online Exam: A Timely Yet a Faulty Measure

Most of the universities of Bangladesh eventually decided to take exams online. However, they were confused for a good amount of time in the beginning regarding whether or not to initiate it. A small group of respondents said that online exams were taken only because they had to and these exams were useless. Most of the respondents said that, at the beginning, they considered taking exams online to be an unnecessary measure during a pandemic situation. However, when collecting data for this study, they realised that without a minimum level of evaluation, students cannot be promoted to the next class. So, there was no other way to avoid session jams. Two students

of the 2017-18 session from two different public universities stated,

If they did not intervene, students would be drifting retrograde.

I was disgusted that I had to give two semester finals in lockdown! But now that I think of it, it was good to get over it. Time was important, I get rid of it without session jam.

After the commencement of online exams, the biggest challenge to the students was again logistical. Poor internet connection to a device was quite tricky to get a hold of. Although these issues were less severe again inside Dhaka; but logistical issues were crumbling outside Dhaka. Often, these logistical issues led to a lack of trust between the faculties and students as there was no way to prove whether or not the problem was actual. A public university student of the 2017-18 session said,

Those without a proper internet connection faced many difficulties and submitted their copies late. Teachers did not accept their papers accusing for cheating.

Moreover, using unfair means was another prevailing issue during online exams. Almost every university took viva-voce to prevent it. In some places, viva-voce was taken, and the performance was compared with the written paper of the students to locate cheating. According to the respondents, so many unfair means took place during online exams and faculties could not prevent every incident as numerous strategies were applied. One respondent of the 2017-18 session from a public university stated,

Actually, everyone cheated; me too; for example, I had a French course. So, I would not have passed that course if I had not cheat. Learning a new language is very difficult. So, I copied everything.

Faculty members would confront if they found any evidence of cheating, even if it was late. They were very strict on this. However, this scenario of cheating created a lack of student-faculty trust that resulted in further during exams. According to a public university student of the 2017-18 session,

It was a trauma for me as I did not cheat. I could not cheat in exams too, because there were many long questions - you would not have time to cheat for answers. Still, teachers assumed that I cheated as I wrote well in an exam. I had to sit for a long viva to prove my innocence.

Tertiary pedagogical experiences

However, some respondents claimed that with the emergence of Learning Management Systems, employing unfair means got tougher eventually. A 2019-20 session private university student said,

After the introduction of LMS, it became complicated as there was a time limit for each question, and students could not see the next question without answering the current one.

However, not every interaction during online examinations was like this; respondents said that teachers sometimes helped them by extending the time for submitting papers. Though some students also claimed that their academic grades fell because of online exams.

Digitization at the Cost of Classroom Engagement

As stated, technology adaptation increased rapidly during the COVID-19 pandemic. Hence, an adaptation of a Hybrid Model in the tertiary education is taking place in Bangladesh. According to the respondents, a public university is taking online classes once a week despite having opinions from both sides regarding this strategy. Even many faculties are now preferring online classes over offline ones. Using whiteboards in the classroom has become nearly non-existent, as everyone uses presentation slides. Teachers are trying to make the lessons more interesting with the help of technology; they are adding the latest information to their lectures. Study materials are now available online; students do not have to make photocopies. Online submission is encouraged, leaving the students with the duty of printing every assignment. Teachers can now be easily accessed online, which was almost impossible before the pandemic.

But with the increased digitisation, a trend of declining classroom engagement offline is in effect as well. Respondents repeatedly stated that students are losing attention in classes after returning to physical classes from online. Moreover, according to some respondents, both students and faculties have started to believe that students will find the study materials online, resulting in putting less effort into the classroom. The final consequence of all these happenings is a lack of engagement in classroom activities, which makes both faculties and students negative-minded towards the fruitfulness of activities inside the classroom.

Teacher-Student Communication: An Ice-Breaking Point?

There has been a debate regarding whether forced online education gave us better student-teacher communication or not. The respondents of this study come up with mixed answers of it. Some of them are saying that there has been no change in their interpersonal relationship. Even if there are, the changes are only due to the personality of specific faculty members rather than being a common byproduct of the pandemic situation. Two students of the 2017-18

session from two different public universities stated,

I found no differences at all in pre-pandemic and post-pandemic classrooms. Everything became as usual...like the pandemic was just one separate event of our time.

It varied from faculty to faculty before, and it has not changed at all. Some faculties are very open-minded and can be easily accessed, and some are out of reach all the time.

But another group of students supports this hypothesis that the pandemic has changed the dynamics of student-faculty communication positively. Respondents of this group said that they enjoy more scope to pose questions now. During the pandemic, they had to communicate with their teachers for various reasons which made overall communication easier. Now, faculties are also concerned about students' mental health, which is pointed as a radical shift according to the respondents in the Bangladeshi academia.

Discussion & Conclusion

This study has tried to delve into the repercussions of COVID-19 on tertiary pedagogy in Bangladesh, including the preparedness of teachers, efficiency of online exams, and changes in the dynamics of student-teacher communication. The study has been guided by three questions: the students' evaluation of their pedagogical experiences during the pandemic, their views on the online examination processes, and the perceived changes in tertiary pedagogical practices in Bangladesh after the COVID-19 pandemic.

From the responses, it can be said that the scenario of tertiary pedagogy in Bangladesh could have been far better if necessary training for both students and faculties was provided, and if sufficient logistic support was present and accessible for every concerned entity. Although the teaching staff tried their best to cope with this forced transition, their lack of familiarity with technologies prevented them from delivering their best like many other parts of the world with similar tertiary education structure as Bangladesh (Noor et al., 2020). The instructors themselves have been stressed and clueless most of the time (Nagi & Bojiah, 2020) as despite the willingness of them, universities could not provide them with sufficient resources and assistance.

Besides, in general, the majority of the students faced a severe digital divide due to a lack of regular access to computers and printing, uninterrupted internet and electricity service, and mentors to help them using LMS, where around 12.70% of them did not have a smart phone to attend online classes in South-East Asia (Bennett et al., 2020; Tariq & Fami, 2020). However, the respondents of the current study agreed with the ample efforts of their faculties. And respondents stated that they had experienced difficulties to understand the lessons while using these new learning platforms as many of

them faced technological barriers, which aligns with the findings of Aguilera-Hermida (2020), and Assunção Flores and Gago (2020). A recent study states that almost 50% of the students could not participate in the online classes in Bangladesh due to the unavailability of devices (Khan et al., 2021), which supports the findings of this study. This study has found that majority of university students of rural areas of Bangladesh were resistant to the online classes because of their unequal position with access to resources such as learning centers, libraries, interaction with professors, etc., and this finding aligns with the study of Das (2021), Aguilera-Hermida (2020), and Sultana and Ramij (2020). Moreover, opportunity for human interaction were inadequate, and as it is considered necessary for establishing peer support and developing in-depth group discussion environment on the subject, it was a significant shortcoming of online learning and many students reporting it as an unpleasant experience. While some countries could provide with advanced technological solutions and stable broadband internet connectivity, Bangladeshi educational institutes could not. Furthermore, some countries had considerably more distant learning experiences than others, whereas countries like Bangladesh were relatively new in the field (Sahbaz, 2020), causing constant difficulties as stated by the respondents of the study.

In contrary, some studies showed that students saw merits in distance education, such as having no bindings to get up early or to commute daily and expressing satisfaction in online learning (Sahbaz, 2020; Sit et al., 2005). Jaggars & Bailey (2010) stated that learning outcomes of online courses have been experienced as better than traditional classes in many cases. Students with higher Grade Point Averages tend perform better in online classes (Hatcher et al., 2014). However, respondents from the current study mostly blamed the pandemic for affecting their results negatively. Ferrer et al. (2023) stated that this type of reasoning is found in the students who had experienced more difficulties to adapt new situations, and consequently encountered poorer academic results. According to the respondents, not having access to regular facilities and absence of peer networking was a crucial factor to their academic failure. They were also skeptical about trusting online tests as some of them actively got involved in cheating and believed that online exam structure facilitated these occurrences. However, educators have equipped themselves with various types of assessment techniques, such as using video cameras to monitor, signing an ethics document, etc. (Lee et al., 2021). Apart from having a lack of trust in the system, Shafiq et al. (2021) stated that students agreed to continue it as they were also concerned about the session jam and were consequently eager to enroll themselves in online exams amidst various mental stress, which also supports the findings of this study.

Moreover, findings of this study also go with the disposition that COVID-19 pandemic has changed the pattern of student-faculty communication as many universities worldwide have tackled the current crisis by shifting the curriculum to distant learning methods (Crawford et al., 2020). With the absence of traditional in-person interaction, faculties were expected to develop

viable techniques to make online classes engaging and compelling. The facilitation of social media as a formal tool for pedagogical studies has been a strategic decision as they have more prominence among university students and educators. Studies found that students had used more digital platforms and online tools regarding education after their shift to online learning (Aguilera-Hermida, 2020; Balushi et al., 2022). According to the findings of this study, the very same phenomenon also occurred in Bangladesh. The availability of diverse channels and media to students for interacting with their faculties is being observed as a positive shift from the perspective of the university students of Bangladesh.

However, the findings of the current study suggest another significant change in classroom engagements of the university students of Bangladesh. Panday (2020) stated that it is not possible to create the same social environment of the physical classroom online, and a physical campus usually provides a space which is more equal and more open for discussion, motivation, self-efficacy, and cognitive engagement. This spectrum of facilities decreased after the transition can result into this change in communication dynamics. In addition, students are also suffering from stress due to tiredness, and a decrease in attention level because of participating online classes for a long time, resulting in less classroom engagement offline (Panday, 2020), which is also one of the major findings of this study.

To facilitate online education in the future, it is required to redesign appropriate synchronous and asynchronous assessment tools and feedback strategies (Akimov & Malin, 2020). For redesigning the syllabus and to teach and assess students successfully online, teachers need to possess a general set of skills. A precious study has stated that inadequate or no training at all has been proved to be a prime constraints to technological integration as they felt underprepared to incorporate technologies into their course curriculum (Snoeyink & Ertmer, 2001). In the contexts like Bangladesh, where it is rare to provide any pre-service training especially in universities, it can be easily assumed that this lacking can be a massive challenge for most of the teachers. So, training needs to be arranged focusing on both technical skills and on strategies to implement them in classroom set up (Kopcha, 2012). As unstable electricity service and internet connection have been the main factors behind the crisis occurred, confirming a stable and uninterrupted internet connection is a prerequisite for joining the classes online, success will also involve having an online learning space that uses open-source software like Moodle or Blackboard, accessible with some additional cost and manpower (Tariq & Fami, 2020). Alternatively, teachers can use commercial software, make content available online, initiate online learning activities through Google Forms and assignments, and online learning assessments where teachers can use available technologies like Google Forms to create online assessments and quizzes for students to complete (Khan & Abdou, 2021; Hatcher et al., 2014).

Finally, this study has certain limitations that should be considered as well. The study could be conducted on a much larger scale with a bigger participant

Tertiary pedagogical experiences

pool, potentially affecting the generalizability of the findings of this study to a broader population. The perspectives of faculties and policymakers were not included in the study, which could have provided a more comprehensive understanding of the issue. Additionally, the student's concerns about potential repercussions may have led them to rigid responses. Future research may address these limitations.

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