RESEARCH ARTICLE

# Online Learning in Bangladesh during COVID-19: Perceived Effectiveness, Challenges, and Suggestions

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**Abstract**

The primary purpose of this research is to highlight the perceived effectiveness, challenges, and suggestions of online learning (OL) for Bangladesh during COVID-19. Fifteen students were chosen using purposive sampling from Bangladesh's private, public, and national universities as a study sample. Researchers generated some themes from secondary sources (published journals, articles, reports, conference proceedings, newspapers, and government records) which were asked to the respondents in relation to the research questions. The findings revealed that though online learning is effective, it has several challenges as well. To mitigate those challenges, the researchers made some suggestions based on the opinions of students. These findings, however, will benefit students, guardians, university authorities such as the University Grant Commission (UGC), and the Ministry of Education.The study only looked at Bangladeshi university students' viewpoints, which may or may not be similar to those of other students, such as those at primary, secondary, and higher secondary levels.

**KEYWORDS:**
Bangladesh, COVID-19, Online Learning (OL), Student, University

## 1 | INTRODUCTION

It is a matter of concern that many students from schools, colleges, and universities have already forgotten their academic aspects, such as rhymes, multiplication tables, formulas, theories, analysis, etc. The "brick and mortar" classroom is losing its monopoly as a learning environment due to Online Learning (OL). Though OL is not a new notion, there have been hints of online degrees since the 1980s, with the 1990s and 2000s serving as the most mature periods for online education. According to Hrastinski (2008), the two types of OL, asynchronous and synchronous, are heavily compared. But, amidst the COVID-19, synchronous OL is attracting much attention worldwide; Bangladesh, a developing country, is not an exception.

The COVID-19 pandemic has wreaked havoc on the education sector. After declaring COVID-19 as a pandemic, educational institutions worldwide stopped offering face-to-face learning and teaching sessions to prevent the outbreak. The governments of the respective countries have been instructed to keep closed schools, colleges, and universities (Rahaman et al., 2020; Rahman et al., 2021). All on-campus classes and activities have been canceled and transferred to online platforms as soon as possible. As a result, the education sector experienced radical changes with the advancement in internet and information technologies (Bates, 2019). Amid the COVID-19, online learning reclaims the highest uses of the internet and other significant technologies

to generate educational resources, offer to teach, and run programs effectively and efficiently (Rahaman et al., 2020). The transition from traditional to online, however, is not without its difficulties, not without flaws. Although the current generation is advance in information technology and has been accustomed to it, but, teachers from previous generations may be unfamiliar with modern technologies. So, online learning is no more restricted to smart acronyms rather it has become a mainstream education now (Jandrić, 2020).

OL, like anything else, has a number of benefits as well as drawbacks. With the COVID-19 outbreak, it is apparent that the educational system is vulnerable to external threats (Bozkurt Sharma, 2020). Ribeiro (2020) accurately pointed out that online learning requires various logistical and behavioral modifications. Increased student anxiety will have a detrimental impact on academic achievement, and technological addiction may have a negative impact on academic performance. During this pandemic on how teachers can enforce unbiased and evenhanded grading procedures, most instructors were not successfully ready to give high-quality instruction remotely while addressing student assessment. In recent days, it has most frequently been observed that, while class continues online, students participate in class using their mobile phones, but they use the phone's split-screen feature, conversing with their classmates on the same screen. However, the teacher does not realize that his students are not paying attention in class. It makes the researchers ponder quite a bit. Are the teachers, the parents, purposefully poisoning these vulnerable students? This is exactly what the researchers say:

*"I have poisoned knowingly, I have given up hope of life and died."*

In Bangladesh, beginning with the pandemic, students, teachers, guardians, and institutions must have a thorough awareness of the benefits and challenges of OL to be effective and efficient. The objective of this study is to add to the body of information concerning the existing condition of online learning in Bangladesh. This study is the most similar in that they both describe the effectiveness of online learning and the sound and adverse effects of COVID-19. Because it has previously been established that online learning is a suitable substitute for face-to-face learning, this research suggests that online learning can be effective in developing countries like Bangladesh. Still, it must overcome some challenges by considering the study's recommendations during or any unforeseen situation such as COVID-19.

## 2 | RESEARCH PERSPECTIVE WITH THEORETICAL SENSITIVITY

This study follows the behaviorist learning theory, which states that external circumstances induce an observable change in a learner's behavior. As a result, soliciting responses from respondents and recognizing any changes in their behavior are central to this approach. Things that elicit a reaction and a change in previous behavior are repeated until a new pattern forms (Reimann, 2018). Due to the global outbreak of COVID-19, all educational institutions in Bangladesh have been closed since March 16, 2021 (Rahaman, et al., 2020). Since then, students' studies have been confined to home, and they have been harmed as a result of the prolonged lockdown. Day after day, they grow further away from their friends and teachers.

To keep the education system active, the government of Bangladesh has implemented an online education system in practically all its institutions. Teachers and students are currently using Google Classroom, Zoom, Google Meet, WebX, Facebook Live, and YouTube to conduct classes and carry on study. After a while, continuing the OL, students are more likely to use or not utilize an application if they believe it would improve their performance. Online learning, in addition to usefulness, perceived ease of use is thought to influence usage. In online learning, feedback is essential for measuring good or appropriate behavior; the behaviorist learning theory is used to measure the perceived effectiveness of online learning (Reimann, 2018).

The purpose of this study was to discuss the perceived effectiveness, challenges, and additions to the body of knowledge on behaviorist learning theory by providing a comprehensive understanding of the new instructional delivery methods adopted by universities, faculties, and students, as well as the challenges and opportunities they are experiencing during COVID-19 in Bangladesh.Thus, the following three research questions have been considered for the interview: How effective are the management tools for the students in the COVID-19 outbreak? What are the challenges students face in online learning? What are the students' suggestions for the improvement of the management system in online learning?

## 3 | METHODOLOGY

The researchers employed the phenomenology qualitative research approach, which focuses on the shared features of a group's lived experiences. This method's major purpose is to come up with a description of the nature of the occurrence in question (Creswell, 2013). In most cases, interviews are held with people who have direct knowledge of a topic, event, or experience. (Creswell, 2013). Two basic questions are addressed in the interview (s): What has your own experience been with the phenomenon? What events or situations have caused you to modify your mind about the phenomenon (Creswell, 2013)? Data sources can also include documents, observations, and art. The data is then inspected and reread in order to find comparable phrases and themes, which are then grouped together to form meaning clusters (Creswell, 2013). This method can be used by the researcher to determine the universal meaning of an event, scenario, or experience and to acquire a better knowledge of the phenomenon. In this research, fifteen students was utilized as size who have direct knowledge and experience regarding online education during COVID-19. For many qualitative studies, however, the recommended size for homogeneous interview participants is 15 to 20. According to Sandelowski (1995), a sample size of 10 people could be sufficient for qualitative research among homogeneous people. However, to select the sample size (15 students), the researcher used the purposive sampling technique. The main reason for employing this technique is to identify individuals or groups of individuals who are exceptionally knowledgeable or experienced about a given subject (Cresswell Plano Clark, 2011).Bernard (2002) and Spradley (1979) emphasize the importance of availability and willingness to participate, as well as the ability to explain, communicate, and reflect on events and ideas, in addition to knowledge and experience.

Before going to conduct the interview, the researchers developed a semi-structured questionnaire with some themes based on the secondary sources (published articles, journals, reports, conference proceedings, newspapers, and government records) that will be asked to the respondents in relation to the research questions. The interview was consecutively conducted through Zoom (it was not possible to take face-to-face because of COVID-19) with the formulated themes to obtain their thoughts. The interview session lasted 20–30 minutes for each respondent and was conducted in Bengali (the native language of both respondents and researcher). It's worth noting that Zoom video recordings were confirmed throughout the interview. The researcher translated and combined their opinions into English once the interviews were finished. Finally, the researcher employed relevant literature, records, reports, and other sources to support and validate the respondents' perceptions of OL's effectiveness, challenges, and suggestions (findings of the study) during COVID-19.

## 4 | ANALYSIS AND FINDINGS

The findings of this study have shed light on the primary goal and research perspectives. On the other hand, the study questions focus on three major research aspects of OL during COVID-19 in Bangladesh: the effectiveness of online learning and OL management tools; the challenges of OL in Bangladesh; and suggestions for overcoming the challenges of OL. The following parts have been created based on the students' responses.

### 4.1 | The effectiveness of online learning and OL management tools

The effectiveness of online learning is a controversial issue in Bangladesh. But, from the findings of much earlier research, it is observed that online learning is effective as well as ineffective in some aspects. However, Swan (2019) reported that through OL and distance education, it would be more helpful for students who live in remote areas. On the other hand, Thompson et al. (2005) strongly argue with the opinion of the previous study and mention that in education, the power of thoughts and usage of language are not as influential as in on-campus learning. Concerning the first objective, the respondents reached the decision that,

*"We believe it is high time to utilize the blessing of technology for online education and learn something new with making much new collaboration". (Res, 3, 8, 10, 13)*

Again, respondents stated an important issue: "session jam," which is common in all public universities in Bangladesh. For effective education, session jamming is not good at all. Few respondents focused on the utilization of idle time after attending

many webinars and certification programs during the COVID-19 pandemic. The summary of their responses is,

*"OL keeps us attached to our study and gives us the basic idea about the courses during the period of COVID-19. Otherwise, we might spend our times in idle as well as we could fall in huge Session Jam". (Res, 2, 5, 7, 10)*

Concerning the second portion of the research (effectiveness of OL management tool), respondents mentioned that, as OL is a comparatively new concept for not only university students but also for students of higher education institutions in Bangladesh. However, to adopt this new technique, both the students and the teachers are using different instruments nowadays. Respondents opined and agreed together.

*"We use many instruments (Zoom, Google Meet, WhatsApp, slack) are effective for OL. But, we found that "Zoom" and "Google meet" are more effective while "Cisco Webex" has its limitations like it usually not students to response". (Res, 1, 4, 8, 15)*

Some other respondents suddenly pointed with some bad experiences,

*"Google Classroom, Zoom, Google Meet, Cisco webex, slack, etc. all can be used if we have the logistic support, like, laptop, wifi, tab or even mobile phone etc. But most of the students are not able to bear the expenses of ensuring all the logistics support for making the online learning effective" (Res, 2, 5, 13)*

In light of the preceding discussions, it is evident that "Zoom" and "Google Meeting" were perceived to be more effective online tools than others. And, based on the responses, it is straightforward to state that OL helps reduce the study gap and spend time appropriately in Bangladesh. It is now necessary to evaluate how many students can stay engaged in their academics rather than not learn at all. Many teachers today use various technologies in their classes; students comprehend, and teachers maintain communication with their students. Students who are under lockdown have their lives spiced up by taking online lessons. Students come into contact with books regularly, which is a necessary part of their lives. Students get up just in time for online classes and stay disciplined for the rest of the day, which is beneficial to their physical and mental health (Rahaman et al., 2021).

## 4.2 | Challenges of OL in Bangladesh

Around mid-March 2020, the pandemic shut down all educational institutions globally, and over 1.2 billion pupils are not physically attending school. Most public schools, colleges, and universities continue to use OL to avoid requiring students to attend classes physically. Therefore, a new research issue has emerged: online learning (OL). The university's approach to online education creates an intuitive counterfactual, which is known as synchronous online learning. Synchronous online learning is a type of learning in which students participate in the same activity simultaneously from different places. However, most online education uses asynchronous learning methods before learning technology-enabled synchronous learning environments (Ribeiro, 2020). During the COVID-19 pandemic, just a few reflections on education were completed, with most of them focusing on online learning (Bacher Hicks et al., 2020). It is needless to say, like anything else, online learning has its benefits and challenges, but the issue occurs when the challenges outweigh the benefits in Bangladesh. The specific concerns that respondents have concerning the OL and how it operates in Bangladesh are given below.

### 4.2.1 | Logistics supports (Device, Internet, and Electricity)

Online learning is completely dependent on technological devices and the internet. As a result, instructors and students with slow internet connections or expensive devices can be denied entry. The use of technological equipment in online learning, as well as the provision of such equipment, constitutes a substantial challenge for institutions, teachers, and students. Therefore, respondents quoted,

*"It's a bit difficult for us to join this OL classes, because we live in rural areas, in our house the internet coverage is not very good". (Res, 9, 11, 12, 13 14)*

Several students were unable to download the browser despite repeated attempts, and it was later discovered that they were using an outdated device that was incompatible with the browser. Students with disabilities may find it difficult to read instructions placed on GC's course announcement page, and when an instructor posts on the course announcement page that there will be no class on a specific date, the instructor cannot reach the students owing to the internet.

### 4.2.2 | Assessment and supervision

Instructors evaluate learning activities after they have been delivered, using tests, quizzes, and examinations to establish the educational objectives. There is a lot of literature on test and measurement theory and analysis, but little on how instructors plan, develop, and compose test items (Osterlind, 2002). Online assessments are common in online learning, with teachers limited to proxy oversight of students, making it impossible to supervise and manage cheating (Arkorful Abaidoo, 2015). Constructed-response, performance-based forms, sentence-completion or short-answer, matching, true-false, and close-procedure are just a few of the ICT-enhanced assessment types available in OL (Osterlind 2002). A reply unmistakably mentioned the correct answer,

*"Teachers have never seen us in person online; therefore, they have no idea how we will appear in the exam. The most severe issue is that many good students are not computer-savvy; therefore, they performed well in paper-based on-campus tests but not so well now. Apart from that, many of our faculty members are not well adapted to IT, so their grading systems lacks the validity in some cases". (Res, 1, 6)*

### 4.2.3 | Receptiveness and social presence

Respect for teachers has dropped dramatically as a result of online learning during COVID-19. Because of the ease of communication, most teachers use several media (email, whatsapp, messenger, etc.) nowadays to communicate with their pupils. Students are very active on social media throughout COVID-19, but they are unconcerned about receiving a text message, whether from a teacher or a friend. Late replies to the teacher, on the other hand, are common, and many pupils do not respond at all. Again, students are indifferent about the time he responds or calls the teachers. In email or any other medium, there is no salutation. During class, they do not adhere to any gesture or posture standards or norms. Social presence is the degree of awareness of another person in an interaction and the resulting enjoyment of an interpersonal relationship. Contrary to the discussion, greetings, compliments, and appealing tones used during online classes are not used properly. Parents should be more concerned with their children's looks and keep up with current events. Therefore, the respondent asserted,

*"When I am at home, there are many challenges, siblings, parents, noise and so on. Sometimes I feel tired with this online class, because I sit in front of the screen without doing anything for a long time, boring, therefore I lose my intention to response my teachers question. Again, frequent messages in my WhatsApp, I missed my teachers to greet, seen, and reply their messages timely". (Res, 1, 4, 6, 8, 10)*

### 4.2.4 | Inefficiency in the online learning management system

Teachers and students are the primary stakeholders in education. Students and teachers need a basic understanding of how to conduct online learning utilizing the digital platform. However, during COVID-19, it has been observed that many students do not have a fundamental understanding of online learning management systems. On the other hand, they may not always have the necessary resources and technology to conduct online classes; teachers are no exception. To address this, educational institutions should equip teachers and students with the most up-to-date technical training to run their online classes efficiently. A respondent pointed out,

*"One day I was taking my breakfast simultaneously continuing my class using zoom app and suddenly my camera turned on. It was an embarrassing situation for me. Actually, the situation had been occurred due to the lacking of proper knowledge of managing online learning instruments. Additionally, our course instructors do not have sufficient knowledge regarding online learning tools that tend to create inefficiency in the online learning management system". (Res, 2, 4, 7, 9 12)*

### 4.2.5 | Hearing but not listening

Students can associate the words used in a lecture with more complicated meanings when teachers focus on the subject being delivered in the classroom. Students should take careful notes and recall the instructor's lessons, facts, and conclusions. Teachers frequently give verbal indications about what information is critical, precise expectations for assignments, and even what content is likely to be on an exam, so paying attention is essential. However, students in online programs are currently not taking their studies seriously. While an online lesson was in progress, many students turned off their video and muted their devices; it was not a big deal. However, it is unusual that the student was gossiping while the teacher gave the lesson; this is a common occurrence. It also guarantees that students will only hear, rather than listen properly. Teachers should take appropriate action for students who are present in classes. At that time, a respondent said,

*"Regularly, I attend the classes but fail to participate in the classes. In this regard, I want to share a story. One day one of my teachers asked me a question based on his delivered lesson but I completely failed to answer the question as identically I was present but mentally not". (Res, 1, 2, 8, 14, 15)*

### 4.2.6 | Social isolation with stress, anxiety, and negative thoughts

The complexities of online learning's real-world application show its drawbacks. One of these effects is that technology is not always efficient, making it more difficult for students to comprehend the principles presented; later, students are not connecting with their classmates or the teacher. Students that participate in online learning systems are more likely to experience reflection, distance, and a lack of engagement. As a result of the absence of man to man interaction in their lives, many students and teachers who inevitably spend a significant amount of time online may begin to display signs of social isolation. Social isolation and a lack of communication can lead to various mental health issues, such as increased stress, anxiety, and negative thinking. Guardians are cordially requested to keep their children on the close and soft observation. All the respondents viewed,

*"Adapting online platform for learning creates lots of problems like boredom, irritation, and frustration for being isolated from the physical presence. In the physical classroom, we had an opportunity to share our feelings, values, perception during the gap time between classes. Even physical class presence helps us to create a strong network which can be beneficial for the career development". (Res, 3, 8, 10, 13)*

### 4.2.7 | Technological addiction

Because of the rise of online learning and the numerous types of technologies available, usage levels increase at the top; many people refer to this as "technology addiction." However, technology addiction is complex and devoid of a clear definition. However, simply, it refers to the excessive use of technology to the point where it interferes with everyday activities, school, and relationships with family and friends. They claim that internet activities activate the brain's pleasure circuit, resulting in a dopamine release equivalent to opiates. Online learning, which is responsible for introducing education via the internet, gaming, and engaging in social media (YouTube, Facebook, Twitter, Instagram, and so on) 24 hours a day, seven days a week, is specifically designed to provide users with entertainment, which encourages compulsive behavior. As a result, this compulsive behavior with excessive internet use develops into technology addiction. Many specialists believe that internet addiction is worse than gambling addiction because of these aspects and wary of accessing the internet. Some of them pointed out,

*"Definitely, online learning system creates huge propensity toward the virtual world. As we are using technology for doing classes, participating in the examination, preparing assignments almost all the time we are engaging with the technology. And when I get free time, usually I kept myself busy using Facebook, YouTube, Messenger, and LinkedIn. After all, I cannot think a blink without having a handheld device and internet". (Res, 4, 7, 9, 10)*

### 4.2.8 | Cheating in exam and assessment

Unfortunately, one of the most severe challenges of online learning is cheating through a variety of methods. Students cheat on exams faster on the internet than on campus because they take them in their environment with all the necessary support. Without a video, students cannot be actively observed during tests; cheat detection is more complicated than traditional testing techniques. Furthermore, without a proper identity verification system in place, students taking online exams may be able to

invite a third person to take the test in their home, resulting in an entirely fraudulent test score. Many respondents agreed,

*"Honestly speaking we have several groups in the online platform and when examination going on, we share our answer in our groups as everyone can be able to correct the maximum questions' answer. Moreover, we have internet availability every time. So, we can get assistance from the internet to provide the answer to any question. Besides teachers also evaluate the answer scripts as their wills". (Res, 5, 9, 13, 14)*

### 4.2.9 | Online learning focuses more on theory rather than practice

The problem is that most online class teachers prefer to concentrate on theoretical information rather than the development of practical skills. Practical lectures are far more challenging to incorporate into an online learning environment than academic lectures. Because there is no face-to-face communication and no actual classrooms to utilize as a workshop, conducting practical projects in an online course necessitates far more advanced planning than theoretical training. The problem has yet to be overcome, even though some of the most innovative online learning platforms are beginning to address and solve it. Certainly, respondents argued,

*"It seems to me that with the blessing of online learning, the mathematical courses turned into a theory. One day I requested one of my teachers who take financial management to make me understood specific math by practically doing it in front of us. But he replied we have not enough logistics support to do this". (Res, 1, 2, 4, 9)*

### 4.2.10 | Limited to specific disciplines

For the time being, at least, not every academic field is created equal. Similarly, not every study field is appropriate for online learning. For example, online learning is better suited to social science and humanities than scientific professions like medicine and engineering, which require a certain amount of hands-on experience. While this may improve in the future, online learning will not be sufficient to prepare students for all occupations. One respondent mentioned,

*"I believe that this online system is totally for theoretical courses. As a student from a science background, I always feel lots of difficulties for lab classes and other practical classes". (Res, 3, 7)*

### 4.2.11 | Less accountability

Students in online courses do not have the same access to instructor and peer feedback as students in traditional schools, nor do they have the same amount of accountability. Instructors, for example, often update grades in virtual grade books and have less time for informal feedback before and after classes. Furthermore, students do not contact their classmates on a regular basis, which might serve as a source of homework reminders and motivation to finish projects and assignments. This is true for team activities because you are not directly communicating with employees who are pressuring you to do your task. As a result, the respondent figured out what was going on.

*"Online learning system cannot ensure the accountability of the students and teachers as well. Most of the time I distract myself from the classes and my teachers tell me nothing. Also, teachers use online tools and infrastructures according to their convenience. We have nothing to guide them as we are students". (Res, 2, 7, 8, 12)*

### 4.2.12 | Cyber bullying

Cyberbullying, according to Kowalski and Limber (2013), is bullying that occurs via the use of technology. Text messaging, email, internet websites, and social media are all examples of this. Cyberbullying, according to Cowie (2013), can take the following forms:

- Angry messages; flaming
- Threats of Harassment
- Intimidation or threats as a result of cyber stalking
- Masquerading is the act of impersonating someone else.

● Outing: revealing personal information with others in confidence.
● Exclusion is the deliberate exclusion of someone from a group.

At present, through online learning, students frequently use the internet and technology. In the name of online learning, the rate of cyberbullying increases abruptly. Therefore,

*"As a female student, when I have tried to say something to my teachers with a smiling face then many of my friends criticize me in our close groups. Moreover, when we are connected to our online classes then many of my friends privately text me and used vulgar words". (Res, 1, 2, 7, 9)*

## 5 | DISCUSSION OF THE FINDINGS

Since the outbreak of the pandemic COVID-19, all educational institutions in Bangladesh have been closed. It is indeed unclear when this will be feasible to open educational institutions. Universities are continuing to teach online in this environment, despite a slew of issues. The goal is to ensure that students do not get distracted from their studies and do not suffer mentally from leaving university. However, there is evidence that people with the right tools can learn more effectively online in a variety of ways. According to multiple studies, students who learn online remember 25–60% more material than those who learn in a classroom, who retain only 8–10%.This is due to students' ability to learn more quickly online. Online learning takes 40–60 percent less time than traditional classroom learning because students can go back and re-read, skip, or accelerate through subjects as needed. In this scenario, the UGC also sets some rules to encourage academics to teach students online rather than on campus to avoid student gatherings. The Bangladesh Education Ministry later assessed OL and allowed online learning management tools like Zoom, Google Meet, Google Classroom, and others to conduct classes and exams (Rahaman, 2020, Rahman et al., 2021). University teachers are also directed to ensure every student is present during scheduled class time. Students have access to resources, that assignment submissions are flexible, and that all logistical support is available to students as much as possible. Based on this, a new academic timetable is being developed, and all teachers have been requested to be ready to provide effective online instruction in the coming days.

But it is a matter of fact that online learning is not available to everyone in Bangladesh. Students have challenges due to unsuitable learning attitudes, poor learning materials, classroom participation, an inadequate home environment, and a lack of self-discipline during this pandemic. According to the Mass Literacy Campaign's research report, "Education Watch 2021," 69.5 percent of pupils do not engage in online learning activities. In other words, 30.5 percent of the students were able to participate.According to another study, 62% of online course participants used mobile data, 36% used WiFi or broadband, and 2% used portable modems to access the Internet (MH Robin, 2021). Due to a lack of access to a smartphone, computer, or laptop, many students are unable to engage in online classes. Virtual education information and training are lacking for teachers and students in villages, chars, haors, and far-flung highland regions. 3G/4G networks and broadband services are not widely available in other locations, except for the city. As a result, those with a lousy 2G network will be unable to attend lessons continually. Due to a lack of electricity and a weak network, students cannot see or hear the teacher's lectures adequately while listening to a sermon online, which causes them to lose interest in online classes. Still, many teachers are unprepared to offer lessons online. Teachers must be trained in this area. Teachers hold online practical classes; other assessment methods are used effectively during assignments, quizzes, and lessons. The lack of software for taking practical classes is currently a significant issue. Apart from that, there are also issues with ensuring that students take tests online and that a thorough assessment is carried out. It is difficult to tell if someone is composing a test answer by replicating a Google search or any other method. Practical classrooms must produce effective software, generate various online quizzes, assignments, and project papers, and evaluate through the defense, oral exams, open-book methods, and other types of written exams to keep the curriculum consistent.

However, the effectiveness of online learning varies by individual. Children, especially younger ones, require a regulated environment, according to popular belief, because they are more easily distracted. Although online learning has advantages such as flexibility, interactivity, self-pacing, and opportunities, the current increase in its use by universities is driven by their desire to align their actions with both local and global practices and policies to combat the spread of the COVID-19 pandemic while maintaining academic standards. In response to the pandemic, universities and other educational platforms have quickly

digitalized their intellectual processes. Wang and Zha (2018) emphasized universities' social functions as part of the world-wide pandemic eradication campaign, in addition to their educational and economic responsibilities. The longer the pandemic continues, the more likely it will become a generally accepted teaching and learning method.

## 6 | SUGGESTIONS TO OVERCOME THE CHALLENGES

First and foremost, it is a matter of thanking the online education system. According to a study titled "Online Education during COVID-19 in Bangladesh: University Teachers' Perspective," which was based on an online survey of 353 private and public university teachers in Bangladesh, the majority (79.8%) of the teachers in the study believe that continuing the online learning process is essential, as the phrase goes,

*"Kana Mama is better than Nai Mama."*

It is now necessary to evaluate how many students can stay engaged in their academics rather than not learn at all. Because of their preparation for online learning, many teachers are already using various management techniques in their classes that the students understand and with which the teachers maintain communication with the students. Students confined to their homes can spice up their lives by taking online classes. Students come into contact with books regularly, which is a necessary part of their lives. They can get up just in time for online courses and stay disciplined for the rest of the day, which is good for their physical and mental health (Strasburger, 2010).

### 6.1 | Suggestion for both teachers and students

The following are the suggestions from the respondents for overcoming the obstacles mentioned earlier for online learning during COVID-19, engaging on this educational system, and preparing a policy for any future uncertain circumstances such as COVID-19.

**Suggestion-1:** All the students and teachers must be conducting the classes on time. Respondents requested humbly to avoid taking classes at night or change the class time.

*"Many students and teachers are saying traditional class well. Did you change the class time there, if not. Why now?" (Res, National U)*

**Suggestion-2:** After considering the COVID-19, teachers should be more excellent and friendly in behaving and lecturing; if this is not possible, students' minds can be diverted to many random negative thoughts, such as leaving the study, even suicide.

*"Because of some teachers and their friendly behaviour, students' minds are good yet, thank Allah and the teachers". (Res, Private U)*

**Suggestion-3:** Social presence should be encouraged to attend the class online for both the teachers and students. Respondents advise the students that the camera be turned on only when the teacher is in the classroom. Surprisingly, a respondent raises the question,

*"I find many teachers who take the classes without turning on the camera. Do you present socially in your class?" (Res, Private U)*

**Suggestion-4:** Teachers should be more engaged and dedicated to communicating after considering COVID-19. They should always keep track of the students' studies, homework, and research studies.

*"Teachers should budget some of their time to consult students". (Res, Public U)*

**Suggestion-5:** Always make contact with social media, update them about contemporary study which can be available to internet, give critical thinking assignment. A respondent mentioned,

*"Only for covid-19, how many certificates I have received, I don't know, in my rest life, will I be able to receive those". (Res, Private U)*

## 6.2 | Suggestion for the Guardians

**Suggestion-1::** Ensure sound environment /real class environment in the house during COVID-19.
**Suggestion-2::** Guardians need to ensure continuous support to keep the students happy at home.
**Suggestion-3::** It is highly suggested to motivate in good mental health of the children.
**Suggestion-4::** Time management of using technology should be ensured.
**Suggestion-5::** Change the psychology, such as AUTO PASS in Bangladesh.

Finally, researchers suggests to the students

*"If you do not engage by own, nobody can make you engage any mode of study". (Rahaman, M. S )*

*"Do not fall in technology addiction, it is worst than drug addiction". (Rahaman, M. S )*

## 6.3 | Suggestions for the Institutions and Government

Significantly, there are numerous issues and limitations with online learning, and no one should dismiss this point. It is important to consider organizing equipment, programs, and technical and financial aid to make online learning more effective. In this scenario, it is vital to discover a means to incorporate content expansion in education and review, structure, and the extent of verification of the students' degree of comprehension in the program. The following are the researchers' recommendations to the institutions and government to make the OL effective and engaging.

**Suggestion-1::** Ensure logistics support for both students and teachers (at least internet, 1 Gb per day, Free Zoom account)
**Suggestion-2::** Arranging training for the OL management tools from the institutions.
**Suggestion-3::** Offering project fund for any unforeseen issues, (COVID-19 vaccination, how to open school, college and university etc and so on).
**Suggestion-4::** Make means, challenges (television, radio) to raise the awareness on education.
**Suggestion-5::** Ensure some ways where all the educational stakeholders (students, teachers and guardians) are accountable for any issue.

## 7 | CONTRIBUTION OF THE RESEARCH

Based on the study findings, the researcher made some practical recommendations for all educational stakeholders, including students, teachers, parents, institutions, and government policymakers. To begin, teachers must increase their capacity and competency, particularly in online learning, such as how to engage students and make OL more effective. Guardians will be able to learn in-house training for their children, attend OL webinars, and compel them to participate in various certification programs. Students will also be motivated to learn many new things in different ways. Second, university leadership cultivates a mindset among students and guardians and increases their confidence to pursue OL to achieve better results.

Furthermore, university administration should adapt course syllabuses based on field expertise to improve OL participation instead of focusing solely on classroom instruction. Third, the institution will be more conscious about keeping engaged in giving students essential resources and other financial assistance to the teachers. Finally, based on the conclusions of this study, the university administration, the UGC, and the Ministry of Education will be able to understand the students' sentiments toward the

OL. During the COVID-19 pandemic, they will also study the efficacy of OL, difficulties and recommendations in Bangladesh's private, public, and government universities. Hopefully, university administrations and the UGC will make the necessary efforts to address these issues, allowing students and teachers to benefit from OL.

## 8 | CONCLUSION

Online learning, like any other instructional method, has its own set of benefits and drawbacks. Though online learning has some challenges, it cannot be ignored. Online learning is now a vital resource for students and institutions all around the world. To keep students educated, educational institutions are turning to online learning platforms nowadays. The increased use of online learning tools will be the new academic standard. Consequently, many educational institutions have had to adjust to this entirely new way of learning. Decoding and grasping these challenges can aid institutes in establishing strategies for delivering lessons more efficiently and ensuring that students have uninterrupted and efficient online learning. Online education starts a new journey toward streamlining the educational system. This method has played a crucial role in developing students' soft skills, which are required to face the challenges and opportunities of the Fourth Industrial Revolution. To restructure education, it is necessary to follow and integrate online education to have new paradigm to learning experiences. Although it may have appeared that this transformational transition in the education sector would take time, the COVID-19 issue has pushed it forward, and online education programs can play a vital part in the growth and spread of education during this period of paradigm shift. Finally, there is no choice but to integrate online learning to education to adapt in this changing reality.

## 9 | LIMITATIONS AND FUTURE STUDY

Because this research issue is relatively new in Bangladesh, the first limitation of this paper is the lack of good literature. The findings are only applicable to university students in Bangladesh, which may not apply to junior or primary school pupils. Another limitation is that the study is qualitative with a small sample size, making it tough to generalize the findings. Researchers provide the directions to conduct quantitative and mixed research based on this study's results across the country. More investigation into specific online tools and tactics, motivation, and goal-oriented achievement needs to be explored that lead to these various types of engagement and learning, which could help improve online learners' education in the future. More research is required to examine disciplinary disparities in how academic majors use online curricula and if these patterns are similar to those seen in face-to-face learning environments. Despite the limitations, the findings reveal the effectiveness, problems, and recommendations for increasing online learning, a critical requirement today.

### 9.1 | Ethical reflection

All of the interviews were conducted with the consent of the participants, who were also informed. All the respondents' participation was voluntary, and there was no means of forcing them; therefore, no approval from an ethical committee was required for the study. Due to restrictions, such as the data containing information that could compromise the privacy of research participants, researchers conducted this research anonymously.

### 9.2 | Acknowledgement

## 9.3 | Potential for conflict of interest

The authors state that there were no commercial or financial relationships that may have been considered a potential conflict of interest during the research.

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