Impact of Online Education on Students in Public and Private Universities in Bangladesh: A Qualitative Investigation

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ABSTRACT
The rapid growth of technology has accelerated the broad acceptance of online learning, which provides accessibility, customization, and cost-effectiveness. In Bangladesh, the COVID-19 pandemic and the recent heat wave prompted educational institutions to quickly migrate to online platforms. This study compares the effectiveness of online education at public and private universities in Khulna, concentrating on discernible disparities and their effects on academic and future career prospects. Restricted opportunities theory underpinned the study which is qualitative in nature. A semi-structured interview guide was used to conduct the study where 16 purposefully selected participants from four public and private universities were interviewed. Data collected from the in-depth interviews (IDIs) were transcribed, translated and analyzed thematically. The study findings revealed differences in access to high-speed internet, devices, and financial aid, with public university students having greater problems. Furthermore, public university students lag behind their private counterparts in terms of academic performance and potential employment opportunities. This research suggests the importance of policy improvements and structural changes within educational institutions to promote fair access and opportunities in the digital learning ecosystem.

Keywords: Online education, COVID-19, Academic gap, Career depression, and Career delay.

INTRODUCTION:
Education is seen as one type of investment and is a dynamic force that helps a country builds a strong economy. It creates and improves opportunities and provides societies with a workforce that is knowledgeable and skilled (Sheikh et al., 2022). Modern technology has advanced at an accelerating rate, causing a seismic upheaval in the global education environment where online learning has become a dominant force. Students' educational experiences have altered substantially as a result of the broad acceptance of online learning, which is differentiated by its low cost, flexibility, and availability. In Bangladesh, online learning has been increasingly popular during the COVID-19 pandemic, which has been dubbed the biggest crisis since World War II (Alizadeh et al., 2023; Devkota, 2021). The imperative of social distancing and remote work arrangements mandated by the pandemic necessitated the rapid adoption of online education, disrupting traditional face-to-face learning methods (Onyema et al., 2020; Bari SM., 2022).

In the midst of the epidemic, educational institutions in Bangladesh and many other countries faced the extraordinary problem of guaranteeing student safety while maintaining educational continuity. Colleges and institutions were forced to quickly switch to online learning modalities after it was discovered that traditional face-to-face instruction may have contributed to the COVID-19 virus's propagation...
Moreover, the heat wave that recently occurred in Bangladesh has highlighted the importance of online education as a resilient substitute. In order to reduce the risks associated with heat-related illnesses, educational institutions such as Dhaka University, Chittagong University, and Jagannath University switched to online classes in response to court orders requiring the closure of schools due to the extreme heat wave (Prothomalo, 2024; The Daily Star, 2024).

The need to maintain educational continuity during the pandemic and heat wave highlights the critical role that online education plays in preserving the students' access to education. However, this transformation has created important problems about equity and discrimination among students at public and private universities in Bangladesh. In addition, university students are typically regarded as one of the most serious groups with the purpose of choosing a career (Islam et al, 2021). And so there is a strong probability of a significant impact of online education on these students’ career. As Bangladesh has made progress in increasing access to higher education over the years, it is relevant to examine the impact of online education on students from both public and private universities in Bangladesh.

**Research Objectives**

The purpose of this study is to look into instances of inequality and prejudice in online learning and how they impact students' academic and professional trajectories. This research attempts to accomplish the following objectives in order to better understand the effectiveness of online education in Khulna’s public and private universities:

1) To assess the effectiveness of online education in public and private universities
2) To investigate the impact of online education on academic and career prospects for students from public and private universities
3) To identify instances of discrimination between students of public and private universities in concerning academic and career advancement
4) To examine the nature and extent of discrimination in online education and its eventual consequences on students' academic and professional lives

By addressing these objectives, this study aims to provide useful insights into the challenges of online education in the context of higher education in Bangladesh, with a particular emphasis on Khulna. These insights are necessary for policymakers, educators, and stakeholders to formulate strategies for creating inclusive and equitable educational settings in the digital era.

**Research Questions**

RQ1: What is the effectiveness of online education in public and private universities in Khulna, Bangladesh?

RQ2: What are the discriminations that the students face because of online education in public and private universities in Khulna?

RQ3: What is the nature and extent of discrimination in online education and its eventual consequences on students' academic and professional lives?

**Review of Literature**

The COVID-19 pandemic has had far-reaching effects on various aspects of society, including education. In Bangladesh, the higher education sector has faced significant challenges due to the outbreak, leading to disruptions in traditional learning patterns and exacerbating concerns regarding academic performance and mental well-being among university students. This literature review aims to synthesize findings from recent studies examining the impact of the pandemic on Bangladeshi university students, focusing on factors such as academic delay fears, psychological stress, educational disruptions, access to online education, and the utilization of technology for learning. Hossain et al. (2021) conducted a study to investigate the influence of continuous online education on Bangladeshi university students' fear of academic delay (FAD) and psychological stress symptoms in the aftermath of the COVID-19 outbreak. The study found that approximately 60% of current pupils experienced severe FAD and were under a lot of stress.

Dutta et al. (2020) explored the multifaceted impact of the COVID-19 pandemic on university education in Bangladesh. Their study identified several challenges faced by students, including university closures, learning interruptions, social isolation, health difficulties, financial crises, and parental involvement. Thematic analysis revealed the complex interplay of these factors, underscoring the need for comprehensive support mechanisms to address the
diverse needs of students during this unprecedented time. Rahman et al. (2021) intends to evaluate COVID-19 has a negative impact on Bangladeshi university students. Students' attitudes, skills and understanding were assessed using the COVID-19. Because of the epidemic, they were also concerned about their mental health (47.84 percent). A large number of students enrolled in classes only via distance learning (69.62 percent). There were more dangerous current locations reported by students in Dhaka, Bangladesh's capital, than by pupils in other places. In addition, a variety of programs gave financial and emotional support to students. Participating students reported having intermediate understanding, a positive attitude, and substantial practice. This study's total KAP score was moderate. In terms of knowledge and practice, female students exceed male pupils.

Sarkar et al. (2021) demonstrates the kind of student device used to access online classes, students who use laptops or PCs to access online classes have a much higher mean perception score than students who use mobile phones to access online classes. Furthermore, students who attend online classrooms utilizing a broadband connection have considerably higher mean perception ratings than students who attend online classes using a mobile network. Shahriar et al. (2021) aims to investigate the use of online-based distance learning at Bangladeshi private universities, as well as the issues that come with it. Poor nation symptoms like low technological infrastructure development, device or internet accessibility restrictions, and budgetary restraints could impede online learning. Teachers and pupils suffer from anxiety and immobility as a result of a lack of technological literacy. The COVID-19 pandemic has brought unprecedented challenges to various aspects of life, including mental health. University students, already vulnerable to stress due to academic pressures, faced additional burdens during the pandemic. Understanding the prevalence and determinants of depression and stress among university students is crucial for devising effective interventions and support systems. This literature review synthesizes findings from two relevant studies: Chowdhury et al. (2022) and Islam et al. (2020), focusing on the impact of the COVID-19 pandemic on the mental health of university students, particularly in terms of depression and stress. Chowdhury et al. (2022) aimed to find out how common depression and stress were among university students during the COVID-19 epidemic in terms of their future jobs, as well as the variables that contributed to this depression and stress. Similarly, Islam et al. (2020) found that a significant proportion of Bangladeshi university students had anxiety and melancholy during the COVID-19 epidemic. It also tried to figure out what causes depression and anxiety. It suggests that kids were suffering from despair and anxiety. It was calculated that around 15.1% of the students had moderate to severe depressive symptoms, while 18.1% had indications of significant anxiety. The binary logistic regression's findings suggest that older students have a higher risk of depression. Furthermore, it is evident that the pupils who had been receiving private teaching before to the outbreak had been depressed.

Khan et al. (2021) investigated that there was a lack of teacher training, competence with online pedagogy, a lack of comprehension of online evaluation, as well as concerns over cost and equity and highlighted the need of educating teachers to use appropriate online teaching and evaluation technologies and methodologies, as well as of offering support to students from underprivileged backgrounds. Abdelrahim, (2021) indicates that the impact of COVID-19 on student online test cheating, more especially e-cheating, will be studied in Bangladeshi university online courses in the year 2020 during the COVID-19 quarantine. According to this study, the imposition of a quarantine during the COVID-19 pandemic created and increased levels of fear and tension among students, which in turn contributed to an increase in instances of e-cheating. It's possible that students' anxiety and tension led to their unethical behavior in online classes and their cheating on online examinations. The study's conclusions also highlight a number of variables that have influenced the practice of exam cheating online. Some of these issues include social pressure, academic pressure, social pressure, finding it easy to cheat, wanting to improve grade point averages, worrying about job security, not using software tools that can detect e-cheating, and not using software tools that can detect e-cheating.

Jahan et al. (2021) investigated how students' reading habits, both academic and nonacademic, are changing at Bangladesh's public and the private universities and found that reading habits have been
negatively impacted by the pandemic, as 44.6 percent of pupils read books for only 1-2 hours while 57.4 percent spend 5-6 hours using electronic devices for different purposes. Khan et al. (2021) discover that digital education has gained in popularity as a result of the unusual days created by the COVID-19 pandemic over the planet. It is proof that during the onset of the COVID-19 pandemic, actions were done to counteract it in Bangladesh's online education system. During COVID-19, an inquiry was done to establish the present state of education in Bangladesh. The many approaches to digital education in Bangladesh are also examined in this study, along with the system's potential and challenges. Furthermore, everyone was made aware of the mental health of Bangladeshi schoolchildren during the COVID-19 pandemic.

Onyema et al. (2020) investigates that COVID-19's educational repercussions According to the available evidence, COVID-19 interferes with the educational process, restricts access to educational and research institutions, results in job losses, and drives up student debt. Many educators and students had to rely on technology in order to keep their online classes going while the Coronavirus outbreak was going on.

Ela et al. (2021) aimed to investigate how students and instructors in Bangladesh see COVID-19's impact on academics and careers. The protracted closure prevents seniors from graduating on time, causing tension and fury. All the individuals I spoke to were against online education as a solution to narrow the gap caused by a lack of resources and uneven access and opportunity for everyone. People have suggested shortening the semester, reducing preparation time, attending more courses on weekends when institutions reopen, and ensuring everyone maintains excellent hygiene. Aucejo et al. (2020) shows that COVID-19 has caused a significant number of students to postpone graduation, drop out of school, and anticipate changing their degrees. Furthermore, roughly half of the sample reported a drop in study hours as well as educational success. It also indicates a massive negative impact on a variety of levels. Many students have postponed graduation as a result of COVID-19, and many have lost a job, internship, or job opportunity. There is not any empirical study conducted in Bangladesh on how online learning discriminates against students at public and private colleges or how it affects their academic and professional prospects. This study aims to uncover the discrimination and its consequences for students at public and private universities in Khulna.

Theoretical Foundation
Restricted Opportunities Theory
The research is connected to the theory of restricted opportunities (Schiller, 2000). A lack of essential resources that provide support and protection makes it impossible for a person to avoid being vulnerable (Ela et al., 2021). The case for limited opportunity is supported by the implicit biases of capitalism, which hold that people who subscribe to "bleeding heart liberalism" are always innocent and blameless and blame society for all social problems. The benefits of this concept stem from the fact that it fosters self-reflection as to why one is poor rather than blaming others. The problem is that it is only conceivable to point fingers when a policy is criticized without any reflection. To fix this issue both sides must make reciprocal modifications. Effective e-learning depends on things like constant high-speed internet, the availability, accessibility, and affordability of electronic equipment, curriculum, and remote assessment (Lassoued et al., 2020). In online education, there are a number of obstacles, including those relating to money, curriculum, and technology (Lassoued et al., 2020; Mahmud and Gope, 2009). In spite of efforts made by a number of institutions and the University Grants Commission of Bangladesh, Bangladesh's higher education instructors and students do not have access to the communication equipment and the consistent high-speed internet connections required to continue their education online (Zaman, 2020). Bangladeshi data shows that an inconsistent internet connection hinders online lessons (Majed et al., 2020; Sarker et al., 2019; Zaman, 2020). A significant barrier to the implementation of online education in Bangladesh is the difficulty of students to acquire desktop or laptop computers equipped with the necessary components. (Majed et al., 2020). In Bangladesh, 36.7% of houses have internet, while 5.6% have computers (Majed et al., 2020; Zaman, 2020). Online education is revealing socioeconomic inequities among university students and producing mental health difficulties such as anxiety, despair, and dissatisfaction, particularly among students from lower-middle income households who cannot afford
essential facilities (Zaman, 2020), and in certain situations to depression (Lathabhavan and Griffiths, 2020; Mamun et al., 2020). No standards exist for organizing and evaluating lab-based courses (Lassoued et al., 2020), which demotivates instructors and students to continue regular online sessions (Zaman, 2020). Aforementioned discussion demonstrates that online education couldn’t provide universal opportunities during COVID-19. Following these, some hypothesis have been raised. The restricted opportunities theory finds out the discrimination of public and private universities students that supports the research hypothesis.

H1- Online education during COVID-19 and recent heat wave create discrimination among students at public and private universities in Bangladesh.

H2- The discrimination has a significant effect on academic and future career.

METHODOLOGY:

Researchers use research techniques to solve research problems in an orderly fashion. An investigation of how scientific research is done might be described as a subfield of this discipline (Kothari, 1990). It is critical that research methodologies be dependable and valid. A standardized procedure that is particular, sensitive, reproducible, and accurate is a dependable method (Staff and Carlsen, 2017).

Research Design

In order to get a better understanding of the meaningful and logical explanations of human behavior, thinking, and actions based on the subjective experiences, judgments, and opinions of public and private university students regarding the academic gap and its effect on the academic and professional career of the students, we conducted the study using the qualitative method (Abuhammad, 2020; Marvasti, 2004). This method helps us to comprehend the meaningful and logical explanations of human behavior, thinking, and actions. From the students’ points of view, our methodology centered on gaining a knowledge of "how the online education during COVID-19 influences the academic and future career of university students attending public and private universities." The qualitative method allows us to collect authenticated human experiences in specific social circumstances, which are influenced by socioeconomic and politico-cultural difficulties, so that we may understand complicated social issues that have a causal relationship to them (Lune and Berg, 2017; Maxwell, 2012). In addition to this, it enables us to comprehend "how the participants construct and contribute a feeling of online education to their regular life while the epidemic was in effect."

Study subjects

Using a purposive sampling strategy, we chose sixteen participants from two public and two private universities in Bangladesh’s southwestern region, which is considered as a prominent academic hub in that area. The sample included eight male and eight female students (refer to Table 1). Student participants have to be enrolled in a regular graduate (Honors) program in order to be eligible. The selection approach made use of theoretical purposive sampling (Bryman, 2012) to achieve data saturation among students from both public and private universities. Furthermore, the number of informants was calculated by conducting face-to-face interviews with participants to acquire informed consent.

Interview outline

For this study, the interview guideline was designed after reviewing relevant literature, consulting with experts in the field, and conducting a pre-interview with a university student. The main thematic questions for the students were - (1) What kind of obstacles did the students encounter during online classes? (2) What kind of financial issues did they face for attending online classes? (3) How was the experience of their online education? (4) Did they able to overcome the problems? (5) What are the impacts of academic gap because of online education?

Data collection

Prior to conducting interviews, participants had preliminary conversations to arrange in-person sessions at times that worked for each of them. This method guaranteed uniformity in questions throughout all sessions and consistency in interviewers. A semi-structured interview schedule was utilized to gather data related to the study queries. Additionally, participants were provided with a signed informed permission form through email. Prior to conducting interviews, the interviews were conducted in Bangla. The in-person interview between the two individuals proceeded without any pauses or disruptions. Twelve to eighteen minutes was the average duration of each talk. With the participants’ consent, all of the
interviews were secretly recorded. Without providing a reason, participants were free to withdraw from the study whenever they wished. We could thus get information from the participants and maintain a cordial connection with them because we were in a neutral position. In order to ensure that the data was correct and free of prejudice, we took extra care during the interview and adhered to the principle of "unrestricted acceptance, attentive listening, and explanation." However, following the sixteenth interview, it appeared that the study had initially reached saturation. After the sixteenth interview, there was no more gathering of data. In a qualitative study, the depth of the data is more crucial for drawing generalizations than the number of samples, it is necessary to emphasize (Bryman, 2012).

RESULTS:
The author compiled important statements and organized them into themes. Thematic analysis, combined with reviewing narratives, was employed as methods to analyze the data. After each interview, the researcher identified key issues for initial analysis based on agreement among participants. Any inconsistencies raised during interviews were addressed and, in some cases, excluded after careful evaluation by the researcher.

Informant’s profile
The study participants were selected from four universities in Khulna, which included both public and private establishments and represented a range of regional backgrounds (Table 1). Five of the informants lived in cities, five in rural areas, and six in suburban areas. Each participant came from a different socioeconomic background. Although the participants' demographic factors, including age, place of residence, and economic standing, varied, there were significant yet commonalities in the narratives collected through in-person, in-depth interviews. These commonalities made it easier to identify the study's emerging themes and emphasized the need for more qualitative research using in-depth interviews with students at both public and private universities. We identified six themes – (i) Knowledge of online education, (ii) Technical challenges of online education, (iii) Financial challenges of online education, (iv) Experiences of online education, (v) Solution of the problems of online education, and (vi) Academic gap and its impact in academic and future

Table 1: Demographic profile of the participants.

<table>
<thead>
<tr>
<th>SN</th>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
<th>Family Income (Monthly)</th>
<th>Name of University</th>
<th>Academic Year</th>
<th>Area of permanent residence</th>
<th>District</th>
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<td>North Western University</td>
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<td>Urban</td>
<td>Khulna</td>
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<td>Usha</td>
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<td>North Western University</td>
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Knowledge of online education

This theme represents the knowledge of online education among students of public and private universities and their families. It also represents student’s family educational status, number of earning members, their beginning of online classes and their joining of online classes. In majority public university student's family, they are the most educated person in their family who are going to be a graduate. In most of the family of private universities students, their parents are the most educated persons. Majority of the participants have only one family member in their family and the earning member is their father. Some of the students have two or three earning members in his family. One of the participants has no earning members. The participants were not familiar to the online education in most of the cases. Online education was totally new for most of them. They came to know about it after the online classes started during the COVID-19 lockdown. At the same time, they had participated in online classes the first time during COVID-19. One of our participants Humayra (22) from Khulna University mentioned,

"I was not familiar to online education system before the pandemic. When we started our online classes after COVID-19, I found out that classes can be conducted using smart devices as well. I came to know that there are apps like Zoom, Google Meet and they can be used to participate in educational activities only after starting our online classes."

Some students at public and private universities were familiar with it but none of them have never participated. They may have known earlier through teachers and various social media that online classes are available. A participant named Mridul (24) from North Western claimed,

"Yes, online education was familiar to me. I knew that different courses could be taken from universities of other countries through Coursera, Udemy. But I never attended in those."

Another participant named Ananna (24) from Khulna University of Engineering and Technology stated,

"Yes, I knew about online education before COVID-19. I never attended but came to know through Facebook, advertisements and various social media that courses or degrees can be taken online through the internet."

According to the participants of public universities, their online classes started around February to March 2021. But it is stated by private university students that their online classes started in May, 2020. Online education was new for most of the student as it was for every family. All participants received more or less support from family. In the case of some public university students, it has been found that their parents did not take it smoothly at first. After understanding later, their family tried to give proper support. One of our participants named Nurul (25) from Khulna University of Engineering and Technology said,

"At first, I did not get the support of the proper family. My parents thought I was wasting time on mobile phone. Later when they saw my teachers taking the classes regularly, they understood and then gave proper support."

The families of the private university participants were more aware about online education. All of the participants at private colleges said that they had adequate support from their families from the start. Not all participants could attend all of the online classes. Only 6 students attended all of the online classes. Other participants attended majority of the classes. They could not make it possible due to some problems they faced. Most of the participants were public university students suffering from network problems, device problems and electricity issues. One of our participants named Sifat (25) from Khulna University stated,
"No, I have not joined all the classes. Since internet or electricity had a big impact for joining online classes, many times classes were not joined if there was no electricity or internet."

Many of those who could not join classes in private universities blamed their own laziness and negligence. A participant named Mridul (24) from North Western University claimed,

"I have attended most of the classes that have been held. The classes that I could not attend were due to my laziness or negligence."

**Technical challenges of online education**

This theme represents the technical challenges which are faced by the students of the public and private universities due to online education in the time of COVID-19. This theme represents the device issues, internet issues if it was faced because of online education. Some of the participants had to face a lot of problems. Among the problems are device problems network issues or internet issues. In most cases, public university participants were found to experience more network issues or device problems. Most public university participants admitted to experiencing Internet issues or device problems. A participant named Humayra (22) from Khulna University stated,

"I faced several problems while doing online classes. Internet related problems, device problems, timing problems have to be faced more. Internet problems such as not getting network, not being connected and frequent lagging have to be best faced. Also, my smartphone was not enough to join online classes. My smartphone was a very old phone. It would hang while joining online classes, often would not provide charging backup, would stop after joining classes."

On the other hand, in most cases, participants from private universities claimed that they have a little internet issues or device problems. They did not have to face many problems. A participant named Jubayer (24) from North Western University stated,

"Since I was a broadband user, I didn't face the problem most of the time. But sometimes if the WiFi was down or there was no electricity, a little problem had to be faced. Most of the time I tried to keep data pack on the phone as a backup and for use when Wi-Fi was down."

Device problem is a very significant thing for the participants. According to the statements of the participants, it was faced more by the public University’s students. A number of participants didn’t have sufficient devices to join the online classes. Majority of the participants of public universities had to take loans to buy a new device. Nurul (25) is a student of Khulna University of Engineering and Technology and he said,

"I didn't have enough devices. The smartphone was not suitable for online classes. It would hang soon after joining the class. Later the problem had to be solved by buying the device with a loan."

There was hardly any device problem among students of private universities. Almost all participants reported having multiple devices. They did not face any device related issues. A participant named Maisha (23) from North Western University stated,

"Yes, I have multiple devices as I have a desktop and two smartphones"

In most of the times, they had three to four devices to join the online classes. Participant named Usha (23) from North Western University claimed,

"Yes, I had sufficient device to attend online classes. I had both a laptop and a smart phone. Besides, parents had smart phones and there was a desktop at home."

**Financial challenges of online education**

Financial stability is essential for education. Due to the lockdown of COVID-19, the income of many families has decreased. In this regard, most of our participants, especially those who are students of public universities and those who are from sub-urban and rural areas have faced financial issues. They have faced financial issues due to the high cost of internet packages, buying smartphones suitable for online classes. One of our participants named Humayra (22) mentioned,

"I encountered significant financial challenges during online classes. One major issue was the cost of data packs. There were instances where I couldn't attend classes because I couldn't afford to purchase additional data packs after exhausting..."
Experiences with online education

This fourth subject explores students’ general experiences with online classes and exams, as well as their attitudes regarding these modalities. The majority of public university students had a terrible experience with online programs. They met a variety of problems, including network issues and gadget malfunctions. Sometimes the problem was too obvious to sustain attention. One thing the students were happy about was that their online classes were going. Ananna (24), a student of Khulna University of Engineering and Technology claimed,

"The online class experience was actually not so good for me. Since there was a network issue, I could not hear the teachers properly. I couldn't connect with them. Repeated buffering used to lose my concentration. When trying to understand something, the internet would go down, network issues would arise and it would not be understood. Over all experience was not so good."

On the other hand, the experiences of online classes were average for the students of private universities students. They hadn’t faced any technological problems but they mentioned about the lacking in holding concentration, lacking in keep concentration properly in classes. A participant named Usha (23) from North Western University said,

"I found the online class experience to be average. Although learning is less in online classes compared to offline classes but that time should be considered. Online was the only way to keep the education system running when the entire world was brought to a standstill due to COVID-19 and physically attending classes was not possible. It is good that we were at least attached to the studies as the online education system was active. Our teachers were quite cooperative. They have come forward to solve any problem. If there was any difficulty in understanding the lessons, the teachers explained it later. They even provided class recordings."

Majority of our participants of public and private universities stated that online exams made them feel good about ending their semester. Most of the students were happy in this term. Shakil (24), a participant from Khulna University of Engineering and Technology said, "Online exam experience was average. I completed the semester with online exam
which was pretty good. But it was quite tough to write and finish the online exam in time. As our physical exam used to take more time than online exam, it was very difficult to finish writing. Besides, if the Wi-Fi is down or if the network is slow, many times I have to come to the courtyard after finishing writing and send the answer sheet. But it was the best thing to finish the semester even though it was one of the lockdowns at home." Some of the students of public universities had faced many problems. It was quite tough to attend online exams but they attended somehow. One of our participants, Humayra (22) mentioned,

"Yes, I attended all of my online exams. But the online exam experience was not good at all. As I said there was a network issue so I couldn't submit even after completing some of the exams. Later the teachers had to be contacted and submitted. Also, I had to attend the exams sitting inside a tailor's shop in the market and it was a very bad experience. People were going back and forth inside the shop. I had to attend the exam from there. Exams with concentration had become a miserable affair. A few times people have even asked me whether I am attending an exam or writing something else during the exam. Talking while writing an answer to a question loses the sequence. So overall I didn't have a good online exam experience. The only good thing is that the exams have been done and our academic gap has been reduced."

According to the statements of private universities students, their experience of online exams was pretty good. At first, they faced some problems but later they got used to it. Munna, a participant from Northern University of Business and Technology stated,

"Yes, participated in few semesters online exams. Completing the online exam was quite a challenging subject in time. Later I was able to adapt it. The best thing was that through online exams the semesters were ending one by one and we were slowly moving towards graduation."

Solution of the problems
This theme indicates the solution of the problems which are faced because of online education and about the flexibility which according to the students could have been done by the university authorities. Among our participants, public university students were more likely to have problems. They tried to solve it in different ways. Those participants who had device problems tried to buy devices with loans and those who had network problems often bought data packs and attended classes outside their homes to solve network issues. Through these, they tried to solve their problems as much as possible. A participant from Khulna University named Sifat (25) mentioned,

"Yes, I was able to overcome the problems I faced. Basically, the problems that were internet issues are one of them. In order to solve internet problems, when there was no Wi-Fi, mobile data had to be bought and used. Also, when there was no network in the room, I had to buy a data pack and go to the roof for classes. Also, since I was no longer technologically sound, it was difficult to adapt at first, but later I was able to. All in all I was able to somehow overcome."

Participants from private universities were found to have experienced fewer problems and had less difficulty in overcome. In majority cases, they didn’t face any problem. So, there is no question of overcome if there was no problems. Other participants have faced a few problems. A participant from North Western University named Jubayer mentioned,

"I didn't face too many problems. There was a little problem of network. Sometimes if Wi-Fi was down, I had to buy mobile data to attend classes. Many times, I had to sit near the window to attend the classes. Apart from them no major problems were faced."

Public university participants felt that university authorities could have made online education more flexible by taking some measures. In this case, students have reported giving a larger loan to buy a suitable smartphone or giving a SIM or giving data to the sim that has a good network in the student's certain area. Students also talked about recording the classes and how they would have benefited from having class records. Humayra (22) stated,

"I think, the university authority could have made the online education system more flexible. The loan given to buy the phone was not enough. Therefore, a standard level of loan should be provided to buy a smart phone suitable for atten-
Nurul (25), a participant from Khulna University of Engineering and Technology mentioned, "Online education system could be made more flexible. In this case, the university authority could have taken some decisions. It would have been feasible to purchase a smartphone worthy of the class if the loan amount used to purchase the gadget had been raised a little bit. Instead of giving data to all Grameenphone sims, Data can be provided to the SIM which has a good network in that certain area. They could offer an affordable data pack for students. Also, we were not allowed to record all the classes. If all the classes were allowed to be recorded, it would be possible to understand the lesson later if we lost our focus or became disconnected. I think these conditions would have been more flexible if the university had adopted them."

Private universities response was different in this case. They found their online education flexible and majority of them think there is no other way to make it more flexible. Fatema is one of our participants from Northern University of Business and Technology, Khulna and he said, "I believe it was flexible. Our teachers were quite helpful. They were always there to help me when I needed it. I don't believe there was any way to make the online classes more flexible than that."

Academic disparity and its effects on education and the future
This theme explored the academic gap and its impact on academic and future between public and private universities students from students’ perception. Public universities student's faced an academic gap of almost a year where private universities students had an academic gap of two months only. All of the participants claimed the late start of online education as the reason of this huge academic gap of public universities. According to Pritom (25), a participant from Khulna University claimed, "Yes, of course. I faced the academic gap because private universities in Bangladesh started their online education only two months after the university was closed due to COVID-19 but our public universities started online education almost a year later. Therefore, I have fallen behind many of my own friends. Those who were students of private universities have completed their graduation almost a year before me. In this regard, we have fallen behind them."

All of the participants claimed that Private university students had an academic gap of only one and half to two months. It was quite less compared to public universities. Usha (23) mentioned, “Yes, I had an academic gap of about one and a half to two months. But, unlike public universities, we have not had an academic gap since they began their online education program about a year later. When compared to a year, two months is a relatively short period. Whereas it would have taken me four years to complete my graduation, it may just take two months longer-I mean, four years and two months."

The students were concerned and tensed about the impact of the academic gap. Impact of the academic gap is dire according to our public university participants. They have to face it more and will have to face it in the future. Their friends who got admission in private universities entered the job after completing the graduation. They are backward in terms of experience in the field of employment and could not participate in many job tests. They are very worried about their academic and employment life. It is quite frustrating for them. According to them, a great disparity has developed in the field of employment. One of our participants Ananna (24) claimed, "I think this academic gap will create a big impact on our future. We are yet to complete our graduation whereas my private university friends even juniors have even completed their graduation and most of them have entered their professional life. In this case, they entered the employment sector or income sector about a year before us. We are one year behind. In terms of employment, it appears that they have gained more than one year of experience from us. I will be counted as a fresher when I apply after graduation. But then they are already one year experienced. Also, we missed many job circulars and even one BCS exam circular. It will create a very bad impact."

Pritom (25), a Khulna University’s participant mentioned, "I think the impact of academic gap will be very bad on our career. Because the students who
passed out from private universities finished their studies one year before us. They entered the job a year earlier where as we public university students are yet to complete graduation. We are one year behind them in terms of employment. They are already one year experienced when we go to the job field. A very close friend of mine used to study in a private university. Although we joined the university at the same time, he is in the final stage of his masters and also a jobholder at the same time. I haven’t completed my graduation yet. I fell behind them in employment. It's actually quite painful. Even after taking admission, I still haven’t completed my graduation. Besides, I think there will be a big discrimination in the job market and this gap cannot be overcome in any way."

The participants of private universities think that due to the academic gap, students of public universities are lagging behind and students of private universities are far ahead in terms of employment and academics.

One of our participants named Jubayer (24) claimed, "I believe that public university students are the worst victims of the academic divide. We began online lessons just after one and a half to two months, whereas public university students begin after nearly a year. As a result, they will take around a year longer to graduate than we will. Many have entered the workforce after graduating from private universities, but students from public universities have yet to graduate. It also leads individuals to experience emotional tension. In this aspect, I believe private institutions are about a year ahead of public universities. We are all aware of the importance of experience while applying for jobs! The private university students proceeded from this point on. Furthermore, those who desire to go overseas for further study lag behind. However, now that private university students have graduated, many have departed for higher study or are prepared to do so. Furthermore, in terms of job preparation, private university students receive more time than public university students. Given these considerations, I believe the imbalance is caused by the intellectual difference, and I do not believe it can be balanced at this time."

**DISCUSSION:**

The results of this study demonstrate that the family members of private university students were comparatively more knowledgeable about online learning than the family members of public universities. Students at private universities received more support from their families from the beginning. The majority of students at private institutions attended all of their online classes, whereas many students at public universities were unable to attend owing to network and device issues. The students of public universities could hardly sort their problems out but it was comparatively easy to solve for the private university’s students. Private universities students could buy data packs as a backup for their family solvency. But it was quite a tough job to afford the expensive data packs for most of the public university’s students. It was found that majority of the students of private universities had multiple devices to join the online classes but, in many cases, it was seen that many students of public universities had no sufficient device to join the online classes. The public university students faced financial crisis due to online education but it was not faced by the students of private universities. They were stable and sufficient to fulfil their wants needed for the online education. Some students of public universities needed financial supports for their continuity of online education. But the students of private universities were able to fill their needs. The experiences of online classes and exams were average for the students of public universities because of their network and device issues but it was quite a good experience for the private universities students as they faced less issues. The students of public universities had hardly overcome the issues but it was quite flexible to the students of private universities. Public universities students have faced more academic gap than the private universities students. As a result, they are delayed in completing their graduation and unable to apply to many job circulars as well as lag behind in terms of experience. They are quite disappointed thinking that they will have to suffer for it later in the future career.

Based on the restricted opportunities theory, individuals are seemed as innocent and flawless and it is the societal criteria to blame. The informants provided opinion similar to the theory. Public university students are lag behind than the private university students and for this reason the public university students blamed the lack of high-speed
internet facilities, policy making of university authorities, family literacy, financial issues, geographical locations, availability of enough resources, affordability of electronic equipment etc. These observations support the first hypotheses that discrimination has created between the public and private university students regarding the online education system. Again, based on the informant’s information, public university students cannot help being as student for more time than the private university students. As a result, their academic life is getting longer, job circulars are being missed. This observation supports the second hypotheses. In the end, it is found that both public and private universities students have attended the online education but private universities students had more family support and financial stability from the beginning and they are ahead of public university students in academics and future careers.

**CONCLUSION:**
The purpose of this study was to determine the efficiency of online education during COVID-19 comparing public and private universities in Khulna, as well as to assess the academic and prospective career discrimination experienced by students at public and private universities as a result of online education. The COVID-19 pandemic had an impact on the education system. It has caused a number of concerns, including emotional stress, discrimination based on device troubles, internet problems, financial problems, and so on. The fundamental distinction was that private universities made quick decisions to cope with the issue. As a result, private university students graduated before their public university counterparts. Students at public universities fell behind in their careers as a result of prejudice. It causes emotional instability, and the anxiety of falling behind in future employment opportunities is more prevalent among public university students. Public universities can reform their rules in this way to provide a fluent education system for their students, as well as a policy to help their students in the event of unexpected situations and to improve the academic curriculum.

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**CONFLICTS OF INTEREST:**
The authors declare that there is no potential conflict of interest regarding the paper.

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