

# Online Education System in Bangladesh during COVID-19 Pandemic

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## Abstract

This paper finds digital education as one of the most popular means of education due to the unexampled days caused by COVID-19 pandemic across the globe. One of the tragedies of the epidemic, beneath the death circle and economic cost, is the human cost on our students and on their education. As the virus is spreading across the country, more than 90% of enrolled students were affected by some kind of limitation posed by the educational institutions, with more than a billion impacted around the world. The miniature-term fight versus the virus is about health. But its lengthy-term effects can only be controlled by a digital education system which is comprehensive and rapid. This is the mere way to eliminate a lost generation due to COVID-19 outbreak, and in an “epidemic-aware” earth could be a stable positive step towards educational inclusion. In this paper an online education system in Bangladesh during COVID-19 pandemic has been discussed. The current scenario of education in Bangladesh during COVID-19 has been investigated. This paper also includes the discussion of digital education methods in Bangladesh, possibilities of digital education system and challenges for digital education system. In addition to that the mental health among students during the COVID-19 pandemic in Bangladesh has been discussed.

## Keywords

COVID-19, Pandemic, Bangladesh, Online Education, Epidemic, Digital Classroom, Preferences, Digital Education Methods, Challenges, Mental Health of Students

## 1. Introduction

The whole world is fighting the coronavirus, which has spread to nearly every point of the globe over the first three months of 2020. At the end of May, the

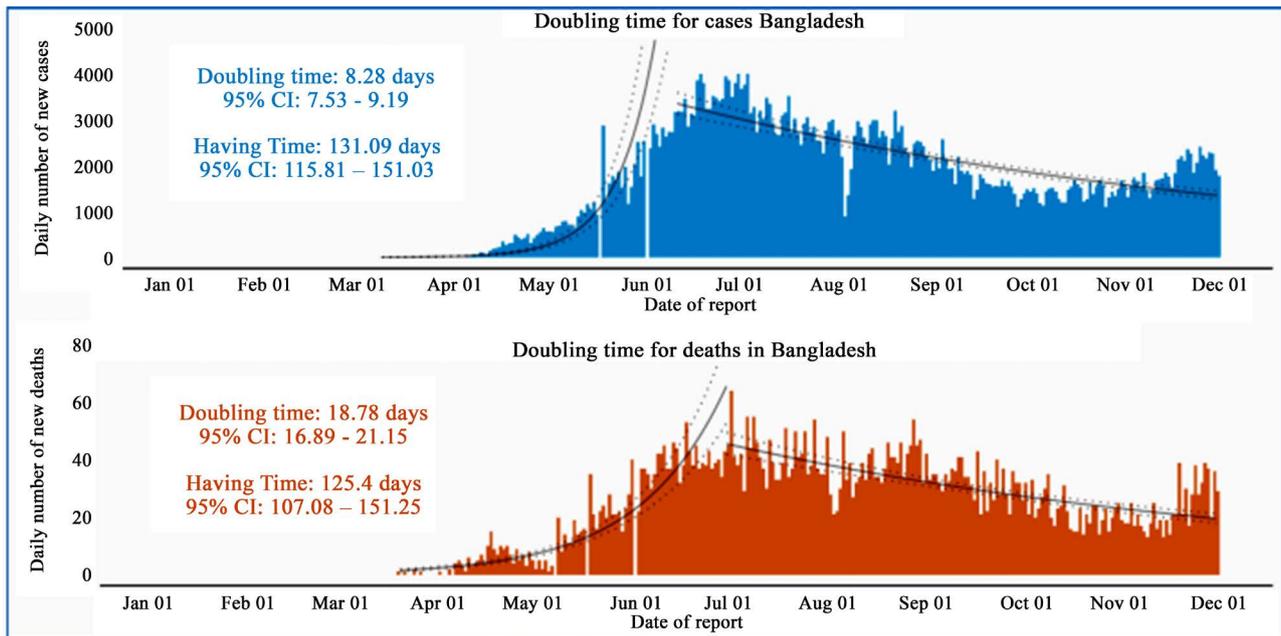
death toll crossed 369,124, while the total quantity of infected was over 6 million across the world.

To control this quick spread, many countries were prosecuted for lockdown that caused a significant impact on all aspects of our daily lives (Abdulmir & Hafidh, 2020). In Bangladesh, the first Covid-19 patients were tracked on March 8 in the capital, and as a result, the country went into general lockdowns from March 26. Since then, people are keeping themselves at home except for emergencies while educational institutions and most industries and business centers remain shut.

Aside from the economy, the sector which is harmed worst by the outbreak of Covid-19 is the education sector. The disease launched spreading from China at the starting of 2020, and infection became quicker in March. Consequently, by this time, different educational institutes across the globe began to shut gradually as well as Bangladesh shut all its educational institutions from March 17, and the student shall be un-peopled instantly. Few private universities initiated online classes from April, where public universities and other educational institutions are at bay from it until now. There are economic reasons as well as humanitarian reasons for ensuring the continuity of education through technology. A break in education for a lengthy period, or the long part of an academic year, is a receivable loss for late-stage economies in a slow-growth phase. However, Bangladesh does not have time to miss.

Digital education is a sort of education where students use their home computers or laptops or smartphones through the internet, staying away from their academic institutions (Anastasiades et al., 2010). In the present time, digital teaching-learning has become a buzzword in the sector of education because no other substitutes provide education to the students in the institutes (Baiyere & Li, 2016). Due to the uprising of the coronavirus epidemic, the entire world is perceiving a massive death toll with extensive fear and dubiousness. Many countries worldwide are tempting to knock off the gap and reduce the damages of students due to the current situation (Asdasd Archambault & Crippen, 2009). However, online education results are not always a boon for the educational community as they pose many opinions in the context of online teaching and learning, leading to widespread concern over the controversial issue of teaching education. The current survey seeks to portray the challenges and possibilities of countries that are not as technologically advanced as those blessed with previous modern-tech technology.

According to the DGHS Press Release, the current situation of Covid-19 in Bangladesh records about four hundred sixty-four thousand nine hundred thirty-two (464,932) COVID-19 confirmed by rRT-PCR, including six thousand six hundred forty-four (6644) related deaths (CFR 1.43%) from 8<sup>th</sup> of March to 30<sup>th</sup> of November 2020. Bangladesh is the top 26<sup>th</sup> country in the world and accounts for 0.75% of the COVID-19 disease burden in the world (WHO). **Figure 1** shows the Covid-19 trend in Bangladesh.



**Figure 1.** The figure above is showing the trend of COVID-19 cases and deaths, 08 March-30 November 2020, Bangladesh (WHO).

As of 30 November 2020, among the detailed cases 26.6% cases were affirmed in individuals between 31 and 40 years old, 19.6%, within the age gathering of 21 to 30, 19.2%, 41 to 50 years and 15.9% within the age bunch between 51 and 60 years old. The most noteworthy passing rate (31.7%) was detailed within the age bunch of 61 to 70 a long time old, 29.6% within the more seasoned age group of 71 and over and 22.3% within the age group between 51 and 60 a long time. Male represented 72% and 77% of the total reported affirmed COVID-19 cases and passing respectively (United News of Bangladesh).

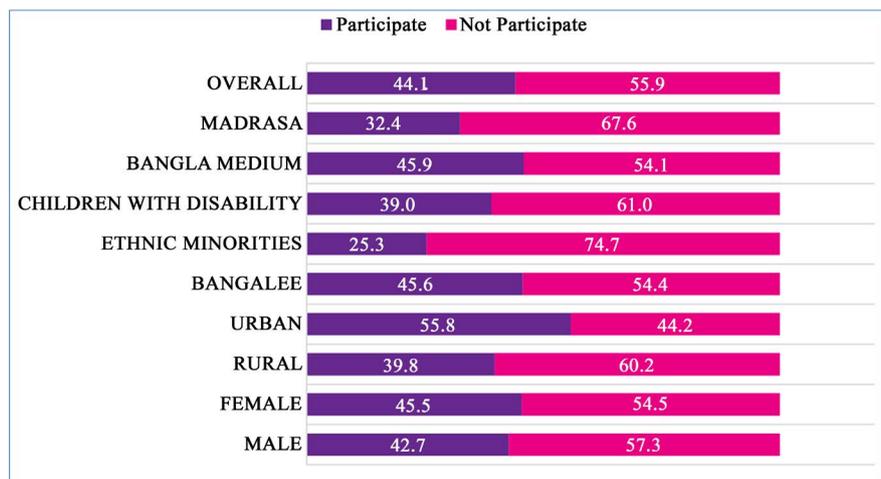
## 2. The Current Scenario of Education in Bangladesh during COVID-19

The reaction Bangladesh showed to COVID-19, in general, were too disorganized, uncoordinated, and chaotic. Responses pointed towards the educational department amid the epidemic conveniently kept their speed on with that disorder. The State declared on 26 March 2020 a countrywide lockdown in the name of “general holiday” shutting down all educational institutions including schools, colleges, and universities, among others. After that, this lockdown was lifted on 31 May 2020 conditionally after more than two months. The bewildered calculations which are being made by the country are difficult to be perceived or understood. The elevation of lockdown is being excoriated in circumstances while social distancing couldn’t be ensured in an overpopulated country like Bangladesh. However, for the education institutions, the lockdown remains the same until September, creating the realization that unlike other major sectors that need to open gradually, the educational institutions can wait. Amidst these calculations, the country selected for remote knowledge, which is a reality per-

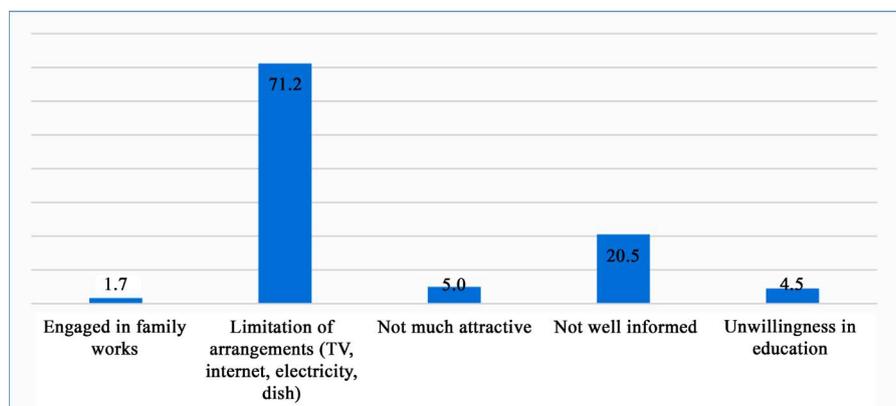
fusing the education system across the country at the time of writing. **Figure 2** shows the percentage of participation in distant learning (Brac.net, 2020).

In the center of the country’s administration, teachers have just started using a combination of real-time interactive courses and classes, with a combination of pre-recorded materials and homework wise digital sessions on a small measurement. However, this isn’t the scenario for the whole country. As an opening response, pre-recorded lists for primary school students were transmitted by a state-run tv channel for the children across the entire country. Putting aside the usefulness of this non-interactive education method, the fact that 50% of the nation’s households do not have a tv set means that a massive number of people have been kept outside its ambit. Subsequently, the Government was expected to make the lists for every primary and secondary student accessible online (via YouTube). This policy precondition that there is access to broadband services across the whole country. **Figure 3** shows the causes of not participating in on-line classes (Brac.net, 2020).

According to Government guesstimate, the whole number of internet users has reached 103.253 million at the end of March, where the whole number of



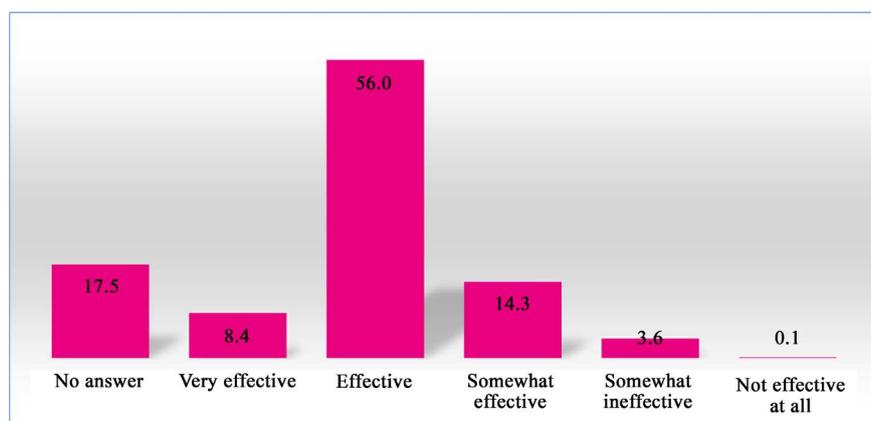
**Figure 2.** Participation in distant learning by different categories (percentage) (Brac.net, 2020).



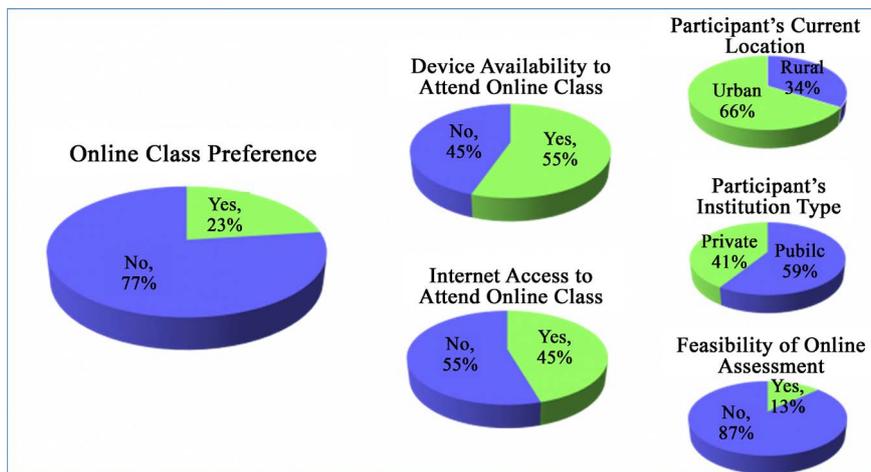
**Figure 3.** Causes of not participating in distant learning (percentage) (Brac.net, 2020).

mobile phone users has reached 165.337 million. But this total number does not express the digital divide in the nation and does not talk about whether the entrance is equal across the various intersections and classificatory contrast (for sex, gender, socio-economic class). So actually, they mask the real state of “entrance” to the internet within the country. Among 42 countries across Europe, Asia, Africa, the Middle East, South and Central America, and North America, the broadband speed for Bangladeshi users is one of the poorest speeds. However, none of the mobile companies can assure the people of threshold internet connection and speed outside the capital. For students outside the central, interactive virtual acknowledgment does not seem very expected. **Figure 4** shows the perception of distance learning (percentage) (Brac.net, 2020).

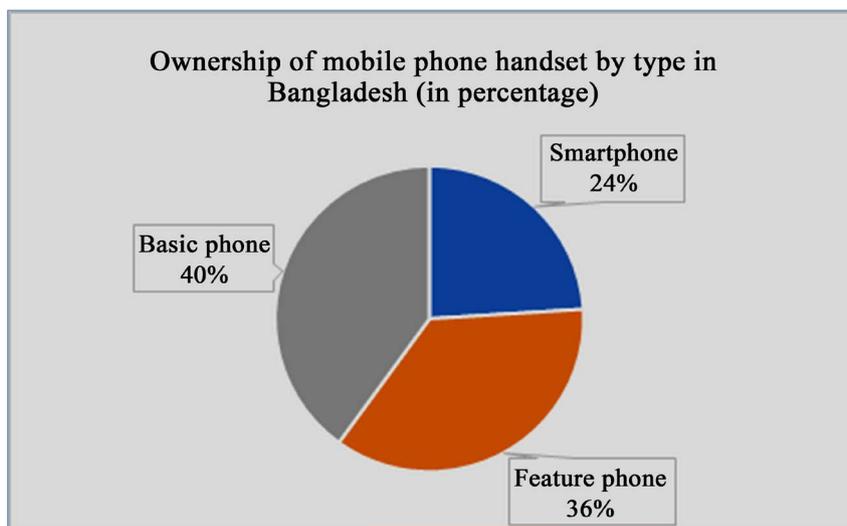
On 9 May, a novel research and training initiative called “BioTed” conducted a quick survey about online classes with so many simple questions and then got reactions from 2038 students from 43 public and private universities and affiliated colleges of Bangladesh. Among them, 34% are presently located in a rural area and 66% in a town location. Only 23% of the students were in the goodwill of taking classes online in this circumstance, while the other 77% opposed the project. The hard dissent’s underlying fact came out clear when it is found that only 55.3% of the students have entrance to a laptop operator, PC, or tablet to join an online class. It represents us 44.6% of the students cannot attend online classes because of lacking logistics. One most important factor for online classes is an internet connection. The survey shows that about 55% of the students are not privileged by proper internet speed to continue their online education. Also, that survey found out that 40% of the students are already joining online classes, among whom around 70% are from private universities. The most astonishing figure is that 87% of the students believe online assignments will not be realizable. Likewise, 82% think that the online classroom is not as constructive as an actual classroom. The survey may not show the actual situation because the sampling wasn’t random. This survey had to conveniently amid this nationwide general shutdown. Anyway, it gives an idea about the circumstances. **Figure 5** shows the Current scenario of Bangladesh student’s enrolment to online class.



**Figure 4.** Perception of the effectiveness of distant learning (percentage) (Brac.net, 2020).



**Figure 5.** Current scenario of Bangladesh student's enrolment to online class (Islam, 2020).



**Figure 6.** Ownership of mobile phone handset by type in Bangladesh in 2019 (in percentage)/Source: LIRNEasia.

(Islam, 2020). **Figure 6** shows the Ownership of mobile phone handset by type in Bangladesh in 2019.

### 3. Digital Education Method in Bangladesh

All educational institutions in Bangladesh (school, college, university) have been closed like other countries where social distancing is an issue. To ensure an uninterrupted education system among the students, the Ministry of Education has supported the teachers in continuing online classes and the free flow of knowledge. The concerned authority has begun telecasting distant learning shows for schools, colleges, and universities. Online education has been mostly focused on the greatest level of education in our country. There are 46 public and 105 private universities in Bangladesh that are offering higher education for their students. Moreover, almost 1500 colleges affiliated with Bangladesh's national uni-

versity are also offering a vast range of classes and programs in higher education. So, these days online teaching-learning is the only way of solving the educational crisis, which is happening throughout the globe due to the epidemic of COVID-19 (Basilaia et al., 2020). In this circumstance, distance learning has achieved so much priority in the education system; media, like Zoom, Google Meet, video communication systems, has gained massive popularity during these lockdown days.

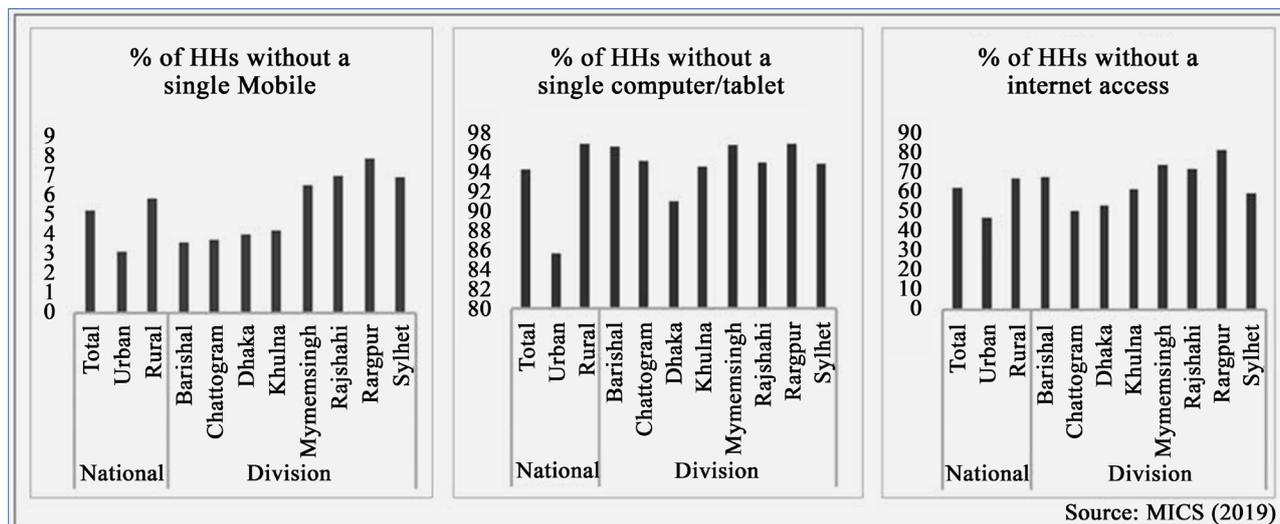
#### 4. Possibilities of Digital Education System

The possibilities of digital education system with online tools are massive. It can bring many benefits for both teachers and learners to aid in teaching and learning. Students are more interested in self-learning and they agree that online courses are more suitable to them (Brazendale et al., 2017). The most important thing to discuss is that students have ample opportunity to create cognitive and polygonal strategies to achieve their educational goals. They also do not need additional preparation to join themselves online, and thus in any situation, they can be ready to join the class regardless of their time and location. In the Covid-19 situation the opening of educational institution is still uncertain. But the leaning path are there to enable students to gain more knowledge and not lack behind. Learners in Bangladesh who attend online lessons note that participating in online classes has helped them be confident in taking online exams on time even though they are taking online lessons and exams for the first time. Amid crisis, the online class has created a strong bond between students and teachers, completing good ideas as a positive outcome that helps students avoid all kinds of fears that remain when they are going through an unprecedented coronary crisis. The more digital the country becomes, the easier it becomes to create digital citizens and contribute to the management of everything published online that stands on virtual platforms.

#### 5. Challenges for Digital Education System

For the first time in Bangladesh, the online education trend has been widely introduced. Still, in the field of evaluation and teaching, this online trend has already encountered some unintended situations, which have also been mentioned in the previous literature. **Figure 7** shows the households without single mobile; households without single computer/tablet; households without internet access. Source: MICS 2019 (Uddin, n.d.).

According to Cameron, William, and Morgan (2012), the amounts and methods assigned to the Internet environment are limited to exercises on the evaluation of online learning. The data that students and teachers have posted on the online classrooms reveals that they face several challenges. Firstly, connecting with online classrooms is their first experience, so it has been observed that they have difficulty adapting appropriately to this trend because creating learning and learning experiences in virtual classrooms from traditional classrooms to



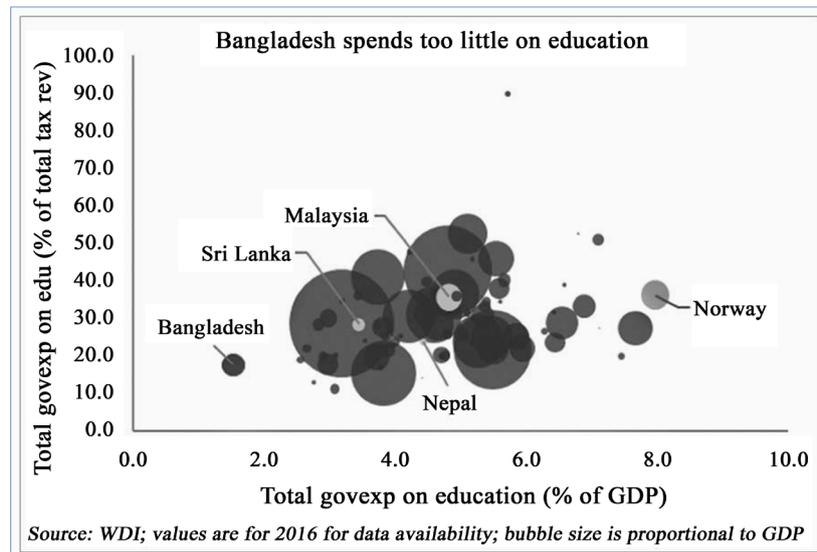
**Figure 7.** Households without single mobile; Households without single computer/tablet; Households without internet access. Source: MICS 2019 (Uddin, n.d.).

computer-based training is very different for them. Second, with most students staying home in different parts of the country during the lockdown, internet facilities are still scarce in rural areas, as students use mobile internet that disrupts Internet communication due to poor internet signals. Plus, the internet is still very expensive in our country. Third, there are some technical problems related to computer and smartphone management, such as low literacy. In addition to that, students and teachers are required to download some apps like Google Meet, Zoom, FoxFi, Audiobook, etc. Due to the lack of experience, sometimes it appears to be a challenge, and there is limited internet connection time for these apps. Fourth, time management is an important topic; for example, Zoom can connect people online for 40 minutes, but due to some technical hurdles, students take time to respond in class. Students will have a chance to understand something as they join in the middle of the semester. Fifth, it is difficult for teachers to manage everyone's notes and employ them in their materials.

Previous literature showed that technical problems, complexity, and sequencing activities were major barriers to including multimedia applications in learning (Brooks et al., 2020).

## 6. Mental Health among Students during the COVID-19 Pandemic in Bangladesh

This exceptional involvement of “home quarantine” beneath lockdown with the uncertainty of academic and proficient career has multifaceted impacts on the mental wellbeing of students. For case, a Canadian study centering on the implications of isolation after the severe acute respiratory disorder (SARS) plague found an affiliation between the longer length of quarantine with a tall predominance of uneasiness and sadness among individuals (United News of Bangladesh). The



**Figure 8.** Spending of Bangladesh government on education. Source: WDI 2016 (Uddin, n.d.).

ongoing COVID-19 widespread is making a psycho-emotional chaotic circumstance as nations have been reporting a sharp rise of mental wellbeing issues, counting uneasiness, discouragement, stretch, sleep disorder as well as fear, among its citizens (Gritsenko et al., 2020; Savitsky et al., 2020), that in the long run expanded the substance use (Ahorsu et al., 2020) and now and then self-destructive behavior (Mamun & Griffiths, 2020; Goyal et al., 2020).

A survey was conducted within the second week of May, from May 6 to May 12, 2020. Students enrolled completely different colleges over Bangladesh were the target populace. A straightforward to understand survey was utilized to gather “basic information”, “depression”, and “anxiety” related data. An online-based platform was used to disperse the e-questionnaire, developed by using the Google Shape, to the understudies. University students from all the divisions in Bangladesh were reached through diverse social systems and interviewed. The survey concluded that about 392 (82.4%) students were found to have mellow to severe depressive side effects, and 389 (87.7%) students were found to have agreeable to extreme anxiety symptoms. More than 60% of the students were male (67.2%), and the rest were female. One in three students lived in rural regions (35.1%). Less than a quarter percent of students (24.8%) believed that they were not scholastically slacking, and over 30% supposedly have exercise regularly amid the lockdown at home (<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0238162>).

## 7. Remedies to Combat the Challenges and Mental Health Issues

With the introduction of online education in Bangladesh, especially in the time of the COVID-19 pandemic, several issues have increased. Several rises in mental health issues, challenges faced in conducting online classes, exams, etc. As the

concept of online education is still new, these challenges are rising and it is to be expected. However, this paper finds some probable solution through which some of these issues can be solved or at least, reduced. Expensive internet connection, connection loss is one of the most common issues faced both by the students and the instructors. In order to reduce these issues, pre-recorded video lectures are one way to follow through. During exams, it becomes tough for the students to upload their script on time due to several internet issues. On the other hand, the instructor needs to ensure that everyone has followed through all protocols with the right intention and everyone has participated in the exams by fair means. In order to solve both the issues, time could be adjusted so that the questions are not that long to answer. As for the instructors ensuring fair exams, several online class monitoring software could be used so that it could detect any sort of plagiarism or illegal steps, if any, taken by the students. Even after solving these problems, another issue is still at large. Mental health has become a serious issue in terms of online classes. Students are being depressed and there is nothing anyone could do about it. Regarding this, the approach should be more lenient in favor of the students. Assignment and home task loads should be reduced by a bit. As it is a tough time and everyone is facing trouble adjusting, this is the least the Educational Institutions could do to make sure that the students are not being pressurized or given extra assignments as they are taking the courses online. A slight change in policy from the Educational Institutions could actually help reduce stress for the students and everyone can have safe, fun, and proper ways of learning and gaining education and knowledge during the pandemic.

## **8. Conclusion**

Although there are several challenges that students and teachers face in teaching online learning, the good news is that there is no doubt that conducting classes online is a commendable initiative taken by the current government to reduce the loss of students' academic activities. For the correct implementation of this task, students and teachers must be encouraged and viewed as a challenge to carry out appropriately. Students should be mindful that they are the primary stakeholders and must be self-motivated to have a greater interest in getting a response to the digital classes with all their endeavors.

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## **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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