

Access and equity: what do we know about government primary school students' remote learning experience during school closures in Bangladesh?

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Abstract

Purpose – The study explores government primary school students' remote learning experience during school closures due to COVID-19.

Design/methodology/approach – A qualitative approach and semi-structured interviews were employed for data collection. The study used a snowball sampling procedure to select 24 participants.

Findings – This study shows that students experienced setbacks in learning due to not having access to resources. Besides, online classes were expensive as they were not able to buy devices, internet package and other resources to participate in the remote classes. Since many students were unable to access digital media and get parental and teacher support for education, students' engagement in learning was very low. Moreover, the paucity of learning due to school closures has lowered students' motivation for learning. The study also contributed to understanding children's emotional attachment with the schools and how the closure affected their well-being. The results indicate that the students, teachers and parents did not have a positive experience with remote teaching-learning and the modalities did not contribute to continuing with meaningful learning.

Originality/value – The remote learning experience shared in this study can be used to inform policymakers, educators and stakeholders exploring remote learning solutions in low-resource contexts. This study contributes to understanding the skills and competencies teachers require to support children's learning during any crisis.

Keywords School closures, Access and equity, Learning, Primary education, Covid-19, Bangladesh

Paper type Research paper

Introduction

Across the globe, COVID-19 has disproportionately affected health, economics and education, and hit the poorest and marginalized people hard. Almost every aspect of education was impacted by the global health pandemic such as reduced access to schooling, deprivation of nutritious meal, lack of immunization and health support, learning losses occurred, learning inequality increased, logistics became more complex, teachers' jobs became harder and children's mental and sexual health deteriorated (UNICEF, 2021a). Globally more than 888 million children worldwide faced disruptions to their education due to full and partial school closures (UNESCO, 2021). The World Bank reports nearly 38 million learners have been affected by COVID-19 in Bangladesh (Rahman & Sharma, 2021). In Bangladesh, with the virus spreading, the government had posed lockdown restrictions which resulted in closing



down of all the schools and educational institutions from 17 March 2020 and the schools were reopened (partial) on 12 September 2021, but again closed for a brief period from January to February 2022. UNICEF's report on school closures shows that because of the pandemic, schools for more than 168 million children have been closed for almost a full year. In total, 14 countries worldwide had remained largely closed since March 2020 to February 2021 and Bangladesh had the longest closure just after Panama and El Salvador (UNICEF, 2021a). The report further notes the largest number of students impacted by the full school closures was in Brazil, Bangladesh, Mexico and the Philippines.

School closures prompted to adopting a range of remote learning modalities. According to UNESCO, UNICEF and World Bank survey of 149 ministries, online, TV/radio, take home materials were immediate education response to COVID-19 (UNESCO, 2020b). However, many children globally and in Bangladesh did not have access to these and especially technology-based education which as a result caused a huge learning-loss. The highest number of children that could not be reached by online and broadcast remote learning policies was mostly from China, India, Indonesia and Bangladesh (Avanesian, Mizunoya, & Amaro, 2021). Therefore, this influences to explore government primary school students' distance learning experience during school closures due to COVID-19. In particular, this study was inspired by the question of how were the children attending government primary schools (GPS) remote learning experience during the pandemic? Given their low socio-economic status, this study also alludes briefly about access and equity issues concerning remote teaching-learning.

Save Our Future (2020) reports access to technology and devices such as television, radio, internet, cell phones and electricity, have become significantly crucial learning tools during the pandemic, but these are also drivers of further inequity. Even in many of the well-resourced environments such as New Zealand and South Korea and other developed nations, online learning has also proved to be exclusionary for poor and rural students, primary-age learners, students with special needs or who take certain types of classes (Burns, 2020). However, "Access to an educational resource does not itself ensure equitable education. In fact, defining educational equity through the narrow lens of access to resources produces greater inequity. Access to resources must be accompanied by the supports necessary to make full use of the access" (Tienken, 2020, p. 151).

The global health crisis-led school disruptions have severely increased learning poverty, to an estimated 70% today. The escalation has been especially large in South Asia and in Latin America and the Caribbean, the regions where schools have been closed the longest (World Bank *et al.*, 2022). World Bank *et al.* (2022) further writes "High rates of learning poverty are an early signal that education systems are failing to ensure that children develop critical foundational skills and thus are far from reaching, and in many cases are not on track to reach, the SDG 4 target of universal quality education for all by 2030 (p. 7)". Although the pandemic has caused disruption in learning and learning loss but even before the exigency, 53% of the children of low- and middle-income countries suffered from learning poverty—defined as being unable to read and understand a simple text by age 10 (World Bank, 2019). Research accumulation shows that learning losses are concentrated among poor students and this has been documented in the Netherlands, Italy, United States, Mexico, Bangladesh and Ghana (World Bank *et al.*, 2022). On the educational situation of Bangladesh, a World Bank study reports:

Even before the COVID-19 pandemic, Bangladesh was grappling with issues of out-of-school children (OOSC) and low and unequal learning outcomes. Equity issues remain with pockets of OOSC in hard-to-reach areas, such as urban slums, hill tracts, sandbars, and wetlands. Around 7 million children and adolescents (80 percent in rural areas) ages between 6 and 16 years were estimated to be out of school in 2016. Furthermore, learning levels are low and unequal, as most school children are not reaching their grade-level competencies (Rahman & Sharma, 2021, p. 2)

Pre-pandemic approximation showed 58% of Bangladeshi children did not achieve minimum reading proficiency by grade 5. And during the pandemic, it was estimated this figure will increase to 76% during school closures. “The COVID-19 pandemic will likely translate into a substantial long-term economic cost. Quantifying the loss of learning in terms of labor market returns, the average Bangladeshi students will face a reduction around \$335 in yearly earning, which represents almost 6.8% of their annual income” (Rahman & Ahmed, 2021, para, 6). Given that schools have already reopened, but the impact of school closures and discussions surrounding “learning loss” require us to know about children’s learning during the exigency. With COVID-19 adding new layers of exclusion in terms of access to distance and/or remote learning opportunities (UNESCO, 2020c), this paper will contribute in understanding access and equity issues and children’s remote learning experience in Bangladesh.

School types in Bangladesh

Socioeconomic divisions, power structure and political dynamics have resulted in the development and coexistence of three parallel education streams such as the vernacular general education, the English-medium schools, and faith-based madrasa. These schools cater to the lower–middle class, middle class to affluent class and the poor, respectively (Ahmed, 2016). These schools do not operate within a common framework of academic standards and provide little chance for horizontal movement of students (Ahmed, 2011).

The primary education system in Bangladesh is large and free and compulsory. At the primary level, government is the main provider of education in Bangladesh. There are 25 types of primary schools including government schools, registered nongovernment primary schools (RNGPS) [these schools were brought under government management in 2013], *ebtidayee* madrasa, NGO operated nonformal schools, etc. Secondary education is not mandatory in Bangladesh. The share of state schools is limited at the secondary level. There are private schools that offer classes from preprimary to higher secondary and use curriculum and textbooks prescribed by the National Curriculum and Textbook Board (NCTB). The medium of instruction in these schools is Bangla, and like the public schools, government conducts national examinations for the students of private schools (Mousumi & Kusakabe, 2020). On the other hand, there are private English medium schools that follow various international curricula. The government controlled English version schools are under private management and follow the NCTB curriculum.

Bangladesh government’s education response to COVID-19 pandemic

During the school closures, Bangladesh government initiated TV-based (*Sangshad TV*) learning program for primary education “*Ghore Boshe Shikhi*” (Learning at home) and for secondary education “*Amar Ghore Amar School*” (My school at my home). These programs attempted to broadcast pre-recorded lessons for the school level education. *Ghore boshe shikhi* started broadcasting lessons on various subjects for 20 minutes on each lesson every day. However, as only some 56% of households in Bangladesh have access to a TV, this excluded almost half of learners. To bridge this gap and reach the marginalized 44% who do not have access to a TV, UNESCO supported the Government roll out a nationwide radio-based distance learning program for primary level. In addition to these, the recorded lessons of the TV programs were also uploaded on the YouTube channel. A separate portal had also been created for the *Ghore boshe shikhi* program.

Literature review

In Bangladesh, poverty and poor-quality education are often cited as the primary reasons for low enrollment, low participation and high drop-out in schools. High pupil–teacher ratio,

untrained teachers, rote learning, low contact hours, inadequate school facilities, unsafe school environment and lack of hygiene facilities are the attributes for low enrollment in schools (Sabur & Ahmed, 2011; Asadullah & Chaudhury, 2013; Banu, Roy & Shafiq, 2018; Mousumi & Kusakabe, 2020). Access to digital resources has been a pressing issue during the pandemic. But a common scenario in Bangladesh is teaching–learning materials are not readily available to the children belonging to the disadvantaged families. Hossain and Zeitlyn (2010) write that many children attend school without any learning materials. These children struggle and try to follow classes and activities without active participation and borrow resources occasionally from other students. The widespread impact of COVID-19 now not only has amplified the existing issues but an added challenge such as remote teaching–learning has emerged (Mousumi, 2022).

Globally at least one third of students were excluded and could not continue learning remotely due to lack of connectivity and digital devices (UNESCO, 2021). Not all school children have had access to TV, radio, internet, computer or mobile phone (feature and smart phones) to continue learning (Avanesian *et al.*, 2021; Burns, 2020; Marshal & Moore, 2020; Mousumi, 2022). However, even if they had they are more likely to use it for entertainment purposes and less for academics. Also, students from low-income families are less likely to seek and get support on schoolwork. They will also rarely participate in online learning and use computers for critical thinking (Burns, 2020). Furthermore, Avanesian *et al.* (2021) assert the availability of technology does not let us arrive at that a child is actually learning by using the respective household asset. “Certainly, quality resources are a necessity for an equitable education experience. But differences in student achievement and learning exist even in places where everyone has the same resources. That is because resources alone (i.e. “stuff”) cannot overcome the dampening effect poverty has on learning (Tienken, 2020, p. 152).

Inequity has been exacerbated by the failure to provide reliable devices for online classes for every student within higher income countries; but such inequities have been most glaring in poorer countries (Burns, 2020). Globally, only one in three children, and one in six of the poorest, had internet access; i.e. the most effective available distance learning modalities excluded most learners, and efforts to expand such modalities would increase inequality in the short to medium-term (UNESCO, 2022). Dreesen *et al.* (2020) reports from the study “potential promising practices for equitable remote learning” conducted in 127 countries that rural poor children were deprived from technology-enabled remote learning. Similarly, inequity in access to the internet and devices for continuity of learning were more evident in marginalized communities, students with disabilities, diverse/special educational needs (Alasuutari, 2020) and in some contexts girls (Marshal & Moore, 2020).

In Bangladesh, the initial education response focused on delivering classes on TV, as television sets are more widely available in households (UNICEF, 2020) and most children in Bangladesh do not have access to the internet. However, less than 40% of students were able to access the educational television channel – a key means of remote education provision in Bangladesh (Fitzpatrick, Riggall, & Korin, 2020). Along with TV, remote learning was also available through radio, mobile phones and the internet. However, less than 50% of children aged 5–15 had access to a radio, computer or television. About 91% of children in the richest but only 9% in the poorest families had access to television (Rahman & Ahmed, 2021). Dreesen *et al.* (2020) reports in Bangladesh, less than 10% of the population has radio ownership. A study conducted on 5,000 students from urban slums and rural areas across Bangladesh by BRAC Institute of Governance and Development’s (BIGD) shows that only 16% of students watched these educational programs on Television. Majority of the students did not find the TV programs easy to follow and only 1% of students watched educational programs on the internet (BIGD, 2020). The Asian Development Bank’s study shows that due to COVID-19 there was a significant learning time loss and this was similar by gender, location and income levels (Li, Matin, & Sharma, 2021).

Online education has proved to be highly didactic and passive and has resulted in an impoverished learning experience for many students (Burns, 2020). Where instruction was moved online, educators noted that young children lacked the self-regulation and skills to look at a screen for long periods and that it was challenging to explain activities (UNESCO, 2022). Not much information is available about the extent to which children were engaged with education during the pandemic as the TV, radio, etc. modalities did not have feedback delivery feature (Alban Conto *et al.*, 2021). School closures have seriously impacted children's learning and online teaching-learning contributed little to mitigate learning loss (Alban Conto *et al.*, 2021; Avanesian *et al.*, 2021). "Learning is a cumulative process, where new learning builds on previously acquired knowledge and skills. When children miss out on foundational learning because of school closures and weaknesses in remote learning, it may leave no foundation to build on when schools reopen" (UNESCO, UNICEF & World Bank, 2021, p. 36).

A rapid survey conducted by BRAC Education Program with a random sample of 1,938 primary- and secondary-level students in 16 districts in Bangladesh expressed anxiety and panic due to the pandemic. The study also reported of students not finding Government's TV based learning program appealing. The data suggests 56% of students were not taking part in the classes. Most children from ethnic minority communities, rural areas, children attending Madrasa, children with disabilities did not attend online classes. These mainly happened due to lack of access to television, internet, electricity, cable-network connection, etc. (BRAC, 2020). A survey conducted in an urban slum area on 476 students studying in the secondary level found that, low participation in online classes was due to access to device, parents lack of trust or permission regarding device usage, lack of technical know-how, lack of interest on part of the student and educational institution did not deliver online classes (Islam *et al.*, 2021).

Bangladesh falls squarely in the learning poverty zone. The pandemic has escalated and added new challenges that already existed (Ahmed, 2021). Therefore, it is worth exploring the remote learning experience of the children studying in the government primary schools and issues such as access and equity.

Methods

The context of the study was how children were learning during school closures in COVID-19. For this a qualitative approach and semi-structured interviews were employed for data collection. The study used a snowball sampling procedure to select 24 participants. The participants were eight students (three girls and five boys), eight parents (four mothers and four fathers) and eight teachers (six female and two male) from eight government primary schools (both rural and urban settings) from five districts in Bangladesh. The student participants are in grades 4 and 5 (four student participants from each grade). The mothers and two fathers had attended primary grades whilst two fathers had school leaving certificates. The teachers had master's degree and had 5–10 years of teaching experience. All the participants were contacted via phone and consent from these participants were sought to conduct the study. In case of the teachers, consent forms were provided through email however, this was not possible with the parents and children because of their socio-economic profile and lack of use of it. Verbal consents were taken from both the parents and children. Parents were assured of children's safety and could withdraw consent if they no longer wished their children to participate. Upon receiving the consent, assent was obtained from the children. All of the participants were informed of the research objectives and only those who agreed to participate in the study were interviewed. All the participants voluntarily participated in the semi-structured phone interviews. Confidentiality and anonymity were guaranteed for all of them.

Data collection and analysis

A qualitative approach and semi-structured interviews were employed for data collection. It was assumed that this design would help the researcher in obtaining detailed information from the participants. The study was conducted in five districts in Bangladesh namely: Dhaka, Barishal, Patuakhali, Jashore and Magura. Data collection began in May and ended in June 2022. Prior to data collection, contacts were made to get consent from the participants. The objectives and features of the study were explained to the participants. These participants were recruited via a purposive sampling technique. Each interview lasted about 30-40 minutes. The interviews were conducted using a mobile phone as most households have access to phones (feature). The researcher collected the phone numbers and made contacts with the participants and scheduled interview with their preferred time.

Three sets of interview guides were prepared for the students, parents and teachers. The first part of the interview guides of students and parents had demographic information, age, gender, grades and education qualifications of parents. The guides included questions such as whether the students were engaged in learning, whether they were attending online classes (if yes/no how and why/not), if the students did not attend online classes, then was there any other way, they continued with their learning during COVID-19 school closures, how were the parents supporting the children in their learning, the challenges the students faced with their learning, how they felt about COVID-19 school closures and their learning of subjects. The students' present learning condition was also asked to all of the participants. In the teachers interview guide, questions included were participants' demographic information, such as age, gender, educational qualifications and years of teaching. The guide also included questions on their remote teaching-learning experience, the transition from face-to-face modality to online modality and again back to the in-person classes and the support they received for conducting remote classes.

Data analysis included thematic analysis. Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data. It minimally organizes and describes data set in rich detail (Braun & Clarke, 2006). All the semi-structured interviews were transcribed verbatim. Data were sorted and organized and themes and sub-themes were constructed through analyzing the data.

Building on previous studies focusing on remote learning experience, this study discusses not only children's remote learning experience but also adds robustness by examining parents and teachers' remote teaching-learning experience and to supplement students' remote learning experience, this study also examined students' learning after the schools reopened.

Confirmability and limitations

After the data collection, debriefing sessions were held with the participants. Debriefing provided an opportunity to the participants to talk freely about any part of the study and express any issues of concerns (Johnson & Christensen, 2014). The study has methodological limitations such as the study used semi-structured interviews only. Other forms of data collection instruments would have increased the rigor of the validity of the study. Another limitation of the study is sample size. The data make it difficult to generalize the results in other contexts. Moreover, inclusion of other categories of participants (for instance, head teachers, school management committee, etc.) would have contributed in enriching the data. The phone-interview has also restricted in understanding the nonverbal cues that may have helped in understanding the verbal messages. A face-to-face interview would have allowed in modifying one's line of enquiry, probing questions and investing underlying motives in a way that phone interview may have hindered (Robson, 2002).

Results

In order to understand access and equity issues in government primary school and students' remote learning experience during the school closures, data were obtained from the students, parents and teachers from eight GPS. The findings focus on parents' and students' remote learning experience, teachers' teaching experience and impact of school closures on students' learning.

Parents' and students' remote learning experience

Because of the school closures, alternative teaching–learning method had to be considered during COVID-19. In most cases, schools went for online classes (no estimates available of the number of schools that went for online classes or used other methods of teaching–learning) and some remained in touch with the students through monthly phone calls only. The below vignettes show that the participants did not have ICT (Information and Communication Technology) equipment to get connected to the online classes. For many households, because of their low socio-economic status, it was not possible to join online classes. Moreover, not all family members in the households have a basic mobile phone through which the students could stay connected to the schools. In many of the households only the father or the male member had a mobile phone and therefore, access to a phone was limited.

My son did not attend online classes as we do not have a proper phone (a smart phone). In the last two years (during the school closures), he did not study at all. He could not understand the subject matters. He spent idle times and was mentally upset, he often felt restless. I have heard that other children, who had facilities to attend online classes, did not like attending it.

We don't have a good phone (a smart phone) so my daughter could not attend online classes. It was really tough for us. The children struggled a lot with their studies. I am not educated therefore; I too could not support them in their studies. Moreover, there was no one in my family to help them support with their studies.

The findings show that those who joined the online classes, did not find it useful or interesting. Besides, online classes were expensive for the participants as they had to buy internet data, print materials that were sent through social media platforms. Participants said the online classes were less interactive and because of the duration of the classes, it was difficult to address the challenges the students were facing.

Both my children were having tough times as they could not understand the content taught in online classes. I was terribly worried about them. The face-to-face classes were better as they could meet the teachers in the class. Digital learning was also very expensive for us. It was not possible to make two children attend online classes. Thus, we had discontinued with the online classes.

In the beginning my son was attending online classes but it was getting expensive for us to afford. Hence, we stopped the online classes. Moreover, they (the children) were not liking it as they could hardly understand anything. The teachers sometimes sent class materials through Facebook messenger. But that did not seem a good solution to me as I had to go to the shop and get those printed.

The student participants informed that due to lack of access and availability of digital technologies, most were not able to attend online classes. The participants revealed that they had gone upset with school closures and did not find the online classes engaging and interactive. In most classes they could not comprehend the content and could not take support on learning from anyone at home. Although the teachers made phone calls to the students but that was not sufficient for the children to engage in learning. The parents and students said the calls that the teachers made were mainly about whether they were studying or not. However, those calls had little to motivate or engage the children in their studies. Students made the following remarks:

My family did not have a better phone hence; it was not possible for me attend online classes. However, I had a home tutor but he came for a few days only (later the parents substantiated that they could not afford the home tutor as the family had to compromise expenses). I was very upset with the school being closed.

Online classes were boring and I missed playing with my friends in the school. We could run, play hide and seek, and have so much fun in the school.

I felt happy when I heard the schools were going to be closed but I did not realize that it would be shut for so long. As the days passed, I felt very sad.

The results show that during the school closures, children from the socio-economically disadvantaged families received less support in their education. The abrupt transition to remote learning lacked personal interaction. Both parents and students were overwhelmingly dissatisfied with teaching-learning during the pandemic. Children barely spent time on learning due to the lack of digital infrastructure and lack of guidance on subject content.

I watched *Sangshad TV* (Bangladesh government's TV-based learning program for school education) but only for a few days. It wasn't interesting at all. I wished a lot to attend schools like before. . . I kept thinking about my friends and the fun we used to have. I felt desperate to go to school.

Sometimes the teachers called up to ask about how I am doing and about my studies. Once I had received a question paper which was actually sent by my [school] teacher but I did not know how to answer the questions therefore, I never worked on them and neither did I return it to the teacher. I did not study anything during the COVID-19 period. There was none to help me with my studies.

The findings suggest the students and parents had hardly engaged with learning. This demographic, because of their socio-economic status, they were not able to buy devices, internet package and other resources to participate in the online classes. The parent participants had also shared about how children were unsettled and disturbed due to the pandemic. They were restless to join school and often stayed anxious and demotivated. The results indicate that the parents and students did not have a positive experience with remote learning and the modalities created more tensions than assuring them with continuous effective learning. Both parents and students were unprepared for remote learning and home schooling.

Teachers' remote teaching experience

Because of the school closures, teachers too faced with insurmountable challenges. They tried to stay connected with the students in a number of ways. Teachers used several digital platforms most commonly Zoom, Facebook, IMO, WhatsApp (IMO and WhatsApp are audio/video calling and instant messaging software services) and phone calls to engage with the students for their learning. During the initial days of school closures, teachers took initiatives to conduct online classes through different video conferencing platforms. Moreover, the teachers were instructed to record classes for 20 minutes and upload the recorded videos to the education office's page. However, these were later discontinued.

Pursuing the students to attend online classes was challenging as most students attending the government primary schools are from poor households and they did not have smart phones to attend online classes. The teachers themselves were hesitant in taking the online classes as they were not sure of the quality of the classes. Lack of feedback and training were important aspects for the withdrawal of the online classes. Moreover, students barely watched the recorded classes which resulted in terminating the activities. Teacher participants noted:

In July 2020, we were asked to record classes and upload it to the sub-district office's page but soon the announcement came of PECE (Primary Education Completion Examination) not being held (in 2020), the initiative stopped. I had recorded classes and took some online classes as well but after

October, I discontinued as the students were not attending it. We (teachers) too were reluctant in continuing the classes mostly because we did not get feedback of the classes we taught. Moreover, the students attending these schools are from very poor families, most families did not have mobile phones, internet connection and as a result they were not attending. So, we felt that the online classes needed to be stopped.

In my school we took initiatives to upload videos on the Facebook page (the teachers created the page for teaching-learning purposes). But none of the students watched. We kept asking the students to watch the video but they didn't. Grade 5 students watched videos for some time as they were afraid of the PECE examination but discontinued when the government announced about the cancellation of the exams.

Teachers also noted that lack of digital media and financial constraints were often the barrier for a smooth operation of online classes. These structural issues could not be supported by the teachers. The teacher participants also mentioned that they did not get any support from the ministry, SMC and the community to conduct online classes.

Some parents were not willing to make their children attend online classes. And many parents could not connect their children for the online classes as they did not have a smart phone, internet connection. However, some parents did visit homes of the children who had access to the online classes and made their children attend those. There were also cases where only one-two students had access to smart phones, so other students who did not have these, got together to attend online classes with their peers.

Most of the students are from poor family background. It wasn't possible for them to engage in online classes. Moreover, we too had lack of resources; some teachers did not have a better-quality mobile phone to record video or conduct online classes. They also did not have a laptop and it was expensive for most teachers to buy internet data. The school did not support us with facilities for conducting online classes or even for recording the classes.

Additionally, teachers did not have access to teaching-learning resources for facilitating remote teaching, digital competency to conduct online classes and skills to make effective use of remote and online modalities. The findings also suggest that teachers did not have technical and pedagogical skills for conducting online classes. Neither the phone calls were well organized that could track students' learning progress. Also, they had attempted in distributing paper-based take home packages but could not distribute those to all the students. Also, only a few students had returned the packages back to the teachers due to the movement restrictions during the emergency period.

Although I tried to run Zoom classes (online classes) but initially I wasn't aware of the operations. I somehow managed to learn some of these platforms. But I struggled to engage the students. I could not teach the way I used to teach in the classroom (face-to-face classes). In the class I could at least see the faces which helped to assess whether students are paying attention or not but here (online class) most of my time went on managing the students therefore, I could not cover the content at all. This is a platform (Zoom) that I and some of my colleagues were using for the first time. . .and we were anxious as we did not have technical know-how. Imagine what the children were doing during those (online) classes. I was going crazy managing them.

All of us were instructed to make phone calls to the students to inquire about their studies and remain connected mainly. But I wish we had some sort of directions to have these calls. . .like what the follow-up calls should address. However, this was an emergency period and all of us need to learn from this [crisis].

Majority of the students could not access to online classes due to financial constraints, digital infrastructure, connectivity constraints, etc. Similarly, teachers too faced these limitations. Besides, teachers are trained in traditional methods and so, lacked the skills to effectively use the remote learning modalities.

Impact of school closures on students' learning

Reports suggest that students were adversely affected by the pandemic and thus it necessitates us to understand how these children are navigating the learning context after the classes resumed. Participants observed that the students were quiet and hesitant in talking to their peers and teachers. Most of the times they remained silent and did not participate in any classroom activities. Most surprisingly, they did not engage in any play activities with the classmates or other students in the schools. Furthermore, they were also conscious about the infection. One teacher concurs that after the schools reopened in September [12th September, 2021]:

The students were very inactive, did not participate at all, they were always scared of the virus, did not play with anyone, rarely interacted with the classmates and this continued until December 2021. This situation had frightened me, I was shocked to see them in such a condition. I did not know what to do, how to support them. Then all of us [the teachers in the school] decided to counsel the students and increase their engagement in learning. From January 2022 onwards gradually the students started being active, lively and actively participated in the classes. But again, the schools were closed in February 2022. When the schools reopened in March, we again started working with the students to make them return to normal life. Now [data collection in June 2022] the students have significantly improved and their engagement with learning and play has increased.

Another teacher noted that most students from her school were admitted to madrasas and a very few returned to the classrooms. The participant also informed that the students were unable read and were hesitant to participate in any activities. The participant notes:

The students' reading skills has deteriorated. Most of the students from my school are from low economic background. I conducted a study after the schools reopened and I identified that 52 children from the school [pre-primary to primary section] reached below poverty line due to COVID. Then there was another problem, many students were withdrawn from the school and were transferred to madrasas. Near about 70% [teacher's own calculation] of the students from my school did not return and only 30% [teacher's own calculation] are attending the classes but are not regular.

Teacher participants shared that because of the school closures parents no longer could rely on the schools for their children's continuous learning. Because of the dissatisfaction, either they have withdrawn from the school or admitted the children to madrasa. This assures them that even if the schools get closed, madrasa will not be closed. What is alarming here is many students have not returned to the schools and those who have returned are not regular in the schools. One teacher participant shared:

Parents are highly dissatisfied with us [the school] as the schools kept getting closed whereas the Madrasas were never closed so they preferred sending their children to Madrasas. They told me that we are only sending the children to the school because you [the school] give biscuits and stipend. The parents want to keep their children admitted to both the Madrasa and school so in times of crisis like covid even if the schools get closed, Madrasas won't, and children's learning won't stop. Although 80% [teacher's own calculation] of the students have returned but they are not regular.

Teacher participants observed that along with irregular attendance, students had low performance in reading, mathematics and English. Since many students were unable to access digital media and get parental and teacher support for education, students' engagement in learning was very low. Moreover, the paucity of learning due to school closures has lowered students' motivation for learning. The teacher participants also concurred that it is the students from disadvantaged background who are grappling with their learning whilst the students from relatively wealthy households had and have all types of resources and supports that are needed for learning.

What I have observed in my school is that the students are not performing well especially in Math and English. We are trying to support them but don't know how to improve their performance. But these are not surprising to us because without attending any classes and participating in

assessments they were promoted to the next grade. So, it is obvious they will not do well. Most of these students' parents don't have any education neither the means to afford any tutor as a result, it is most likely they will struggle in the subsequent grades. Only those who are from wealthy families are performing well and not facing significant difficulties with their learning.

The global health crisis has led to an unimaginable loss and this is not just in terms of academic learning but the children have experienced fear, anxiety and hesitation to get back to regular classrooms. The transition back to in-person classes has not been easy for the students. The vignettes show that teacher participants have played a critical role in ensuring students' emotional wellbeing. Another significant issue is the transfer to madrasas. Because of frequent school closures, parents have developed low faith in the schools and their trust in the madrasa schooling has grown.

Discussion and conclusion

Widespread school closures have disproportionately affected students from disadvantaged backgrounds, who are less likely than their peers to have the necessary connectivity, books, instructional material and physical space to work and study at home and to be strongly supported to learn at home (World Bank *et al.*, 2022). The abrupt transition to remote learning that included broadcasting videos and online distance learning platforms did not seem to contribute much to the academic learning in many of the students and a similar situation was not uncommon to schools in Bangladesh. During the global health crisis, schools in Bangladesh were closed for 18 months as a result, students, parents and teachers were grappling with a myriad of challenges. In response to the spread of Covid-19, the government, several education and development partners, schools and teachers implemented remote learning.

Inequality in learning has grown and the pandemic has exposed how access to devices and remote learning was difficult for the students from low-income status backgrounds. In Bangladesh and elsewhere, remote learning was mostly conducted through digital devices. This study finds that children were not able to engage in online classes due to inadequate access or no access to mobile phones (both smart and feature phones), unaffordable internet data, and a conducive learning environment. Parents were unable to support the children in their learning as they had low/no education and/or did not involve in their learning. The learning disruptions has affected the most disadvantaged families and also contributed to widening gap between the low-income families and the well-resourced families. The data shows only the wealthy segments of the students who had access to devices had some education engagement. The parent participants struggled to afford devices, buy internet data and get the assignments printed as these were expensive to them. Great inequities exist amongst these rich and poor households and the pandemic has exacerbated inequities. The crisis has exposed uneven distribution of technology that deprived the poorer households to engage in technology enabled remote learning. In fact, "school closures presented a 'remote learning paradox' in that many countries adopted technological solutions that were not well suited to their contexts" (UNESCO, UNICEF & World Bank, 2021, p. 22).

Although the teachers made attempts to conduct online classes, made 2-3 monthly phone calls, sent paper-based packages that mainly dealt with assessments but these did not really involve meaningful "learning". The government's TV based program did not appeal the students and they found it "boring". Teachers too were faced with obstacles in conducting online classes as they did not have the necessary technical know-how. Access and availability of online platforms was also limited for the teachers. Similarly, schools too did not have a strong digital infrastructure that could help support in deploying remote learning strategies. Moreover, the teacher participants did not receive any financial support to make phone calls

or purchase digital devices for online classes. Along with these constraints teachers grappled with online pedagogy. Similarly, the phone calls were not methodized and teachers did not receive any guidance and supervision to track students' learning.

The continuity of learning was also disrupted for students' low motivation and low engagement in education and this happened during the pandemic and after the schools reopened. Both parent and teacher participants shared that the students had low morale and low motivation to learn on their own. The participants noticed that after the schools had reopened the students were not motivated to learn and remained "silent" in the class. A study prepared by the Asian Development Bank reports, children's morale to study had significantly declined due the pandemic, and respondent's top concern was learning loss (Li *et al.*, 2021). The study had predicted that a high dropout and drop in school attendance may happen mainly due to loss of motivation to study and financial challenges. In this study, teacher participants' observations show that many of the students did not return to schools after the reopening. And those who have returned are not performing well. The teachers feared that the students have slipped backward and are at risk of losing the learning they once had learned. Student motivation and student engagement are two critical aspects for engaging in remote and in-person learning.

The Bangladesh Government collaborated with international organizations and deployed television and radio programs to support continuation of learning but no concrete evidence to show that those benefitted the students. Unsurprisingly, students getting auto-promoted from previous grades in 2020 were not likely to be ready for lessons for the new grade when schools reopened. Then, with little regular classroom instruction, they were auto-promoted again to the next grade in January 2022. It means that a student who was in grade 3 in March 2020 is in grade 5 in January 2022 without acquiring the foundational skills of literacy and numeracy (Ahmed, 2022). The teacher participants revealed that the students' performed poorly in reading, mathematics and English. The students did not comprehend the subject matters and received inadequate guidance on the contents. Limitations in availability, affordability of digital devices and lack of teachers and parental support in their learning declined their performance in the mentioned subjects.

The results of this study indicate toward developing students' socio-emotional learning (SEL), mental health and wellbeing. All three components seemed stark in the study but since the research did not focus on these topics, much could not be extracted. The study contributed in understanding children's emotional attachment with the schools and how the closure had affected their well-being. Children were frustrated due to the disturbance in their daily routines, less physical and social activities, and reduced social contact with their peers and teachers. Children's behavior during and after the school closures indicate they were experiencing anxiety and experienced mental health difficulties. Parents and teachers also feared deterioration in the children's well-being. Yorke (2021) asserts only focusing on numeracy and literacy will limit our holistic understanding of children's learning and development. UNICEF (2021b) reports that 1 in 7 children has been directly affected by lockdowns, while more than 1.6 billion children have been in distress with some loss of education. Therefore, in order to have positive impact on students' learning and development, focus should also be on developing children's SEL — "a range of skills and attributes that are important for students' development, both inside and outside of school" (Yorke, 2021, para, 3). For the learners' successful educational trajectory, these components along with literacy and numeracy are important.

The findings also reveal because of school closures and disruptions in learning, parents were withdrawing their children from the GPS and admitted them to the madrasas as these faith-based institutions were operating normally. Parents were dissatisfied with the prolonged school closure and wanted a continuation in their children's learning. Parents were in favor of educational institutions that were opened during the crisis as these

institutions would keep their child's learning continue without any interruption. Nevertheless, it was not within the scope of this research to dig deeper into the reasons of withdrawal from GPS and migration to the madrasa.

Collective effort is required to “build back better” and make the education system better, interventions that are pro-poor in characteristics need to be included in the recovery plan. In 2015, the 2030 Agenda for Sustainable Development Goals (SDGs) were adopted by United Nations member states. Among the 17 SDGs, Goal 4 was dedicated for education— “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. The SDGs progress report 2022 shows that school closures have had devastating consequences for children's learning and wellbeing. Girls, children from disadvantaged backgrounds, children living in rural areas, children with disabilities and children from ethnic minorities were affected due to school closures more than their peers ([United Nations Social and Economic Council, 2022](#)). Concerted efforts are required to mitigate the loss for schooling disruptions. Although the government has collaborated with international organizations, education and development partners to provide distance learning solutions and some are working toward school sector response plan but clearer goals and greater coordinated efforts are needed for meaningful learning. [Sengeh and Winthrop \(2022\)](#) stress on how deep engagement of educators, families, communities, students, ministry staff and partners is essential to transform education systems.

Many areas need urgent attention to mitigate the challenges concerning education. One specific area that requires attention is education budget. Bangladesh government's spending on education budget is only 14.4% of the national budget which is about 2% of the GDP (Gross Domestic Product) — second lowest education budget in South Asia. Governments and international organizations must protect the domestic and international financing of education ([UNESCO, 2020a](#)). It is time to draw attention on SDG 17 which specifically calls on countries to “strengthen the means of implementation and revitalize the global partnership for sustainable development”. Hence, a greater international cooperation will help improve the potential catastrophe and reduce the inequities. Leveraging the partnership is important and it is essential more than ever to continue to collaborate and bring expertise together in finding solutions to ensure learning for the poorest children. The collaboration will help support the infrastructures for a resilient education system ([Rahman & Sharma, 2021](#)). More importantly teacher- and community-led initiatives will help improve the learning conundrum. Teachers need to explore for creative ways to engage with the students and parent-teacher collaboration can support in increasing children's engagement in learning.

In order for these poor children to flourish, they will need to acquire a full breadth of skills ([Sengeh & Winthrop, 2022](#)) and this requires learning-focused responses. Although the study dealt with a small sample size but the findings suggest that there are access and equity concerns. The children from the poor households are deprived of resources to participate in remote learning. These findings also highlight the needs for upskilling teachers' digital competency, improve pedagogical skills, and increase the interaction between parents, teachers and students for meaningful and effective learning. Teaching-learning needs to be re-envisioned and redesigned to help those who are left behind succeed ([Mousumi, 2022](#); [Sengeh & Winthrop, 2022](#)). Although COVID-19 has laid bare the inequalities and limitations of our education systems but it has also helped us to rethink about the skills and capabilities students require, understand the importance of SEL and reimagine learning and learning environments. This study has opened several avenues for future research on remote learning in Bangladesh. With a large sample size future studies may explore: how children were learning during the emergency period? Which remote learning modalities were effective and reached the most marginalized and vulnerable children? What interventions were introduced and worked well during the crisis period? Focus should be on interventions and approaches that are relevant, effective, and context specific that can prevent further learning crisis and

bring equity in remote learning. The remote learning experience shared in this study can be used to inform policymakers, educators and stakeholders exploring remote learning solutions in low-resource contexts.

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