Scoping paper
Under COVID-19 Learning, Evidence and Research (CLEAR) for Bangladesh

The Impact of COVID-19 on the Education of Primary and Secondary School Children in Bangladesh
The Impact of COVID-19 on the Education of Primary and Secondary School Children in Bangladesh

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Abstract

The educational crisis caused by the onset of COVID-19 has impacted approximately thirty million primary and secondary school students in Bangladesh. This scoping paper outlines the effects of COVID-19 induced school closures on the state of learning of primary and secondary school children in the country. This paper aims to synthesize existing evidence, identify knowledge gaps, and scope out research gaps in this context. Existing literature was reviewed, stakeholders were consulted with, and evidence and insights were consolidated and presented. The findings indicate that marginalized students, particularly those from rural areas, urban informal settlements, remote regions, females, students from low-income households, and students with disabilities, were disproportionately affected by school closures. Remote education initiatives implemented by government/non-government entities to maintain learning continuity did not reach these children, leaving them with a more severe gap in their learning than their peers. As schools resume in full swing, hybrid learning measures that combine blended online and in-person classes may prevent these students from effectively recuperating from learning gaps incurred during school closures. Additionally, household financial crisis, low student motivation and institutional constraints were encountered as a result of COVID-19, all of which may impede learning recovery. Prior to developing effective solutions for recouping lost learning, it is necessary to establish nationally representative databases tracking student learning levels and dropout rates. Further investigation is necessary on the use of low-tech remedial education approaches to ensure student inclusion.
# Table of Contents

**Abstract** .................................................................................................................................................. 2

**Table of Contents** .................................................................................................................................. 3

1.  **Introduction** ........................................................................................................................................ 5

   1.1.  **Background** ................................................................................................................................. 5

   1.2.  **Methods and Analysis** .................................................................................................................... 8
       1.2.1.  Literature Review .......................................................................................................................... 8
       1.2.2.  Stakeholder Mapping .................................................................................................................... 9

3.  **Pre-Pandemic State of Learning in Primary and Secondary Schools** ............................................. 11

   3.1  Student Learning Profiles: Primary and Secondary level (pre-COVID-19) .................................... 11

   3.2  Institutional Determinants of Education Quality ............................................................................. 17
       3.2.1  Progress So Far ............................................................................................................................ 17
       3.2.2  Teacher Quality ............................................................................................................................ 17
       3.2.3  Time-on-Task ............................................................................................................................... 19
       3.2.4  Classroom Teaching Practices ................................................................................................. 19

4.  **How Will COVID-19 Affect Learning** ............................................................................................ 20

   4.1  Government interventions during school closures ......................................................................... 22

   4.2  Government response after school reopening .............................................................................. 23

5.  **How do school closures affect learning?** ...................................................................................... 24

   5.1  Pattern of student time-use during the school closure ..................................................................... 24
       5.1.1  Time engaged in learning ........................................................................................................... 24
       5.1.2  Time Engaged in Working ....................................................................................................... 27

   5.2  Student engagement with education during school closures ...................................................... 28
       5.2.1  Access to technology and participation rates ............................................................................ 28
       5.2.2  Family Support in Children’s Education During School Closures ............................................ 31
       5.2.3  Teacher support in pupil’s education during school closures ...................................................... 32

6.  **Back-to-school? Possible barriers to learning recovery** ................................................................. 32
6.1 Financial Constraints .................................................................................................................. 33
6.2 Student Motivational barriers .................................................................................................. 34
6.3 Institutional Constraints: Schools and Teachers ........................................................................ 35

7. Evidence on marginalised student groups .................................................................................. 36

7.1 Children in Remote Areas ........................................................................................................ 37
7.2 Street children’s education during school closures: ................................................................. 38
7.3 Children with disabilities .......................................................................................................... 38

8. Summary of main findings .......................................................................................................... 39

8.1 Mode of Learning Engagement ............................................................................................... 39
8.2 Learning support: Parent/tutors/teachers ................................................................................ 39
8.3 Access to technology and online class participation ............................................................... 40
8.4 Possible barriers to learning recovery ....................................................................................... 40

9. Scoping future research areas .................................................................................................... 40

References ....................................................................................................................................... 42

Appendix .......................................................................................................................................... 48
1. Introduction

1.1. Background

As a part of its pandemic response strategy, Bangladesh declared school shutdowns on March 17, 2020, and maintained them for 18 months\(^1\), making it one of the world's longest-running pandemic-related school closures (GEEAP, 2022). On January 21, 2022, in-person classes were suspended for a month to combat the omicron variant’s escalating infection rates (GEEAP, 2022). As a result, the learning activities of approximately 30 million primary and secondary school students in Bangladesh have been disrupted. (BANBEIS, 2020).

Bangladesh was struggling with a learning crisis even before the COVID-19 outbreak (World Bank, 2017). Test scores from various learning assessments indicated that children at primary and secondary levels were performing significantly below their core grade-level competencies (MoPME, 2017; UNICEF & BBS, 2019; BRAC-IID, 2015). Disengagement from learning due to extended school closures is predicted to have a detrimental effect on children's learning gains (Vegas, 2021), and if the potential implications of COVID-19 on an education system already plagued by shallow schooling-learning profiles are considered (Bhatta & Sharma, 2019; Asaduzzaman & Shams, 2019, Asadullah & Chaudhury, 2015), the pre-pandemic learning crisis is expected to deteriorate even further. Children from affluent families, living in urban residences or those with more educated parents are likely to be better prepared when classes resume, whereas underprivileged/marginalised children are more likely to fall behind academically (Angrist et al., 2021; Andrabi et al., 2020; UNICEF & UNESCO, 2021). Hence, students will be returning to school with differing levels of learning gaps, depending on how effectively they were supported and remained engaged in learning during school closures.

It is critical to identify students who are most likely to be impacted by school closures and are at risk of experiencing significant learning losses. Additionally, it is vital to examine the potential barriers to students' effective learning recovery. This scoping paper outlines the effects of COVID-19 induced school closures on the state of learning of primary and secondary school children. The purpose of this

\(^1\) Schools reopened on the 12th of September 2021
paper is to consolidate and summarize existing evidence, to identify research gaps in this field, and to suggest areas for future research in order to assist key actors in designing appropriate interventions and policy measures for constructing tailored approaches to learning recovery. This paper is intended for researchers, donors, government stakeholders, research funders, and individuals from private and public organizations devoted to resolving education sector concerns in Bangladesh and committed to generating evidence through rigorous research to enhance the learning status of primary and secondary students.

School closures have reportedly affected all students, but to varying degrees depending on their socioeconomic status, geography, gender, and health. Our findings reveal that majority of the students, across regions and grade levels studied at home without any adult supervision, with overall study hours being much lower for female adolescents in urban informal settlements. Adult supervision was absent for most of the students from rural households and those from low socio-economic backgrounds. This is further corroborated with evidence on parental/teacher learning assistance as relatively higher share of rural students, students living in urban informal settlements, female students, and students from lower-income households reported to receive no academic help from parents/tutors.

Remote lessons were broadcasted/taught via various digital platforms2; but with only 56 %, 0.6 %, 5.6 %, and 37.6 % of households in the country reporting access to televisions, radios, computers, and broadband internet, respectively (UNICEF & BBS, 2019), the coverage and reach would be limited to those with the relevant technologies3 (UNICEF & UNESCO, 2021; ELCG, 2020). Our findings reveal that fewer females, students from low-income families, residing in urban informal settlements, remote and rural areas, and with disabilities had access to devices/technologies (smartphone, television, laptop, internet etc.), resulting in corresponding differences in their uptake/participation of online classes. Female students faced additional intra-household barriers in maintaining learning continuity, as families ensured uninterrupted study time for boys than girls.

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2 Through TV, community radio, online platforms, and mobile phones
3 As in access to the internet, digital devices (phones, computers/laptops)4 It has been successfully implemented in over 14 countries (e.g., Pakistan, Tanzania, Kenya, Uganda, Mali, and Senegal to name a few (Dundar et al., 2014; Vagh, 2012)
The pandemic’s effects on household livelihoods would likely bear severe consequences on afflicted students, especially more so on those already marginalized/disadvantaged (Favara et al. 2021; Evans et al. 2021; Dessy et al. 2021; Miguel & Mobarak, 2021). Evidence suggests that financial constraints in households prevent students from partaking in remote education services, which was observed for students in urban informal settlements, remote and rural locations, and females in particular. Children being victims to early marriages and/or labour market entry warrant high likelihood of them dropping out—events which were found to be predominantly driven by a household’s dire economic status or financial crisis. Students with disabilities and those residing in remote areas have remained mostly unengaged with education for much longer periods than their respective cohorts and are also at risks of falling out of the education radar.

The lack of any additional support, extended disengagement from studies may impair these children's learning outcomes in comparison to their advantaged peers, thereby deepening their already-existing educational divide/inequality (WB 2020; ELCG, 2020; Miguel & Mobarak, 2021; Rahman & Sharma, 2021; UNICEF & UNESCO, 2021).

Prior to instituting any remedial programmes, the absence of a nationally representative data set on students' levels of learning in Bangladesh makes it difficult to quantify any consequential learning loss associated with school closures. Additionally, as children resume in-person classes, a nationally representative database that tracks students' enrollment status, reasons for non-enrollment, attendance status, and reasons for non-attendance over time would assist us in identifying students who are dropping out and their respective explanations. Considering our review found that many private schools had closed, a nationally representative study tracking student enrollment status would also enable us to identify locations where schools have shut down completely and how it may have impacted students in those regions. Comprehensive research collecting detailed information on marginalized student groups must be undertaken (students with disabilities and those living in remote areas), to ensure inclusive strategies for learning recovery. The absence of a nationally representative database on students' levels of learning in Bangladesh prevents us from ascertaining the exact magnitude of learning loss experienced by Bangladeshi school students. We should evaluate students' present levels of competences and foundational knowledge through standardized learning assessments which would then necessitate monitoring when government and non-governmental
organizations provide interventions to improve children’s learning status. This would provide us with means of tracing student’s learning levels as various interventions and initiatives to recover student’s learning levels are implemented. Further investigation is necessary on the use of low-tech remedial education approaches to ensure student inclusion as well. Detailed research on these issues would assist policymakers and other relevant stakeholders in identifying the various challenges faced by marginalized student groups, which would then aid in designing remedial packages tailored to their specific needs, assisting them in reclaiming lost learning.

1.2. Methods and Analysis

1.2.1. Literature Review
Following the identification of relevant studies, reports, and publications, the evidence was integrated, summarized, and gaps were determined and reported. The review comprised project reports, policy briefs, survey findings, and cross-sectional descriptive/exploratory/analytical research. Qualitative studies focusing on qualitative data, such as stakeholder interviews and in-depth respondent interviews, were also included. Additionally, systematic reviews, evidence gap maps, and experimental (randomized controlled trials) and quasi-experimental (non-randomized controlled trials) research focusing on student learning outcomes were included.

The initial search terms were “COVID-19, “Education”, and “Bangladesh”. Subsequent searches were conducted on specific websites and databases using various combinations of these words and others (e.g., Bangladeshi, children, COVID-19; female children Bangladesh, etc.) on specific websites and databases such as UNICEF Innocenti’s curated library of COVID-19 + Children research, Gender, and Adolescence: Global Evidence (GAGE), World Bank and World Bank Blogs, Innovations for Poverty Action (IPA), Science Direct, Global Partnership for Education (GPE), National Bureau of Economic Research (NBER), Education Resources Information Center (ERIC) and PlosOne.

Recent education sector reports including Bangladesh Education Statistics (for Primary and Secondary schools), 2020; National Student Assessments (NSA) 2017 for primary students; Learning Assessments of Secondary institutions (LASI) 2015; Annual Primary School Census (APSC), 2020;
Annual Sector Performance Report (ASPR) for Bangladesh Primary Education, 2020, Household Income and Expenditure Survey, 2016 (HIES) from government websites, such as Bangladesh Bureau of Educational Information and Statistics (BANBEIS), Directorate of Primary Education (DPE), Directorate of Secondary and Higher Education (DSHE) and Bangladesh Bureau of Statistics (BBS) were used.

Additionally, reports from the World Bank, GAGE, UNESCO, UNICEF, Education Watch (CAMPE), and BIGD were studied. Moreover, Google and Google Scholar were used. The reference lists and bibliographies of articles cited in those selected research were also evaluated. The search took place between October 2021 and March 27th, 2022. The majority of publications, journal articles, and media articles on the effects of COVID-19 on education covered in the scoping paper are from 2020 to 2022. However, the absence of robust country-specific information for certain aspects necessitated conducting a global literature search before 2020 to understand how COVID-19 may affect these factors in a developing country. This evaluation focuses exclusively on the effects on primary and secondary school students, leaving unexamined the effects on pre-primary, higher secondary, postsecondary, and madrasah students, despite their importance.

### 1.2.2. Stakeholder Mapping

This scoping paper conducted interviews with individuals from government and non-government organisations, who were considered education experts/specialists in Bangladesh. The mapping of stakeholders was accomplished in two phases: through a review of relevant research publications and interaction with experienced education experts. We analysed published literature to identify academics/professors in the field who possessed superior conceptual and field knowledge and were seasoned researchers (based on their period of work and journal contributions in the education field in Bangladesh). They were selected on the basis that their years of prior expertise will enable them to shed light on potential research gaps in the education literature.

The following criteria were used to select stakeholders for interviews: whether they were from government agencies directly involved in policy formulation/reforms in Bangladesh's primary and secondary education sectors; whether they were non-government actors ardently engaged in
improving access or providing educational opportunities to school children and whether they were seasoned professionals and researchers who could elucidate/highlight existing research gaps.

Stakeholders were asked to identify marginalised student groups that are more disadvantaged than others; they were also asked about supply-side issues, particularly concerning COVID-19 and its effects on teachers; and finally, they were asked to share some of the real-world challenges encountered while providing education-related interventions/services during school closures. The workshop was conducted under the Chatham House Rules, ensuring anonymity of the participants to encourage candor in the discussions and opinions.

Some of the key government stakeholders involved in the primary and secondary education sector were the Directorate of Secondary and Higher Education (DSHE), National Curriculum and Textbook Board (NCTB), National Academy for Educational Management (NAEM), National Academy for Primary Education (NAPE), Directorate of Primary Education (DPE), Ministry of Primary and Mass Education (MoPME), Ministry of Education (MoE), and Access to Information (a2i), due to the acceleration of digital education initiatives.

International stakeholders included The World Bank, United Nations Children's Fund (UNICEF), Save The Children, The United Nations Educational, Scientific and Cultural Organization (UNESCO), and The United States Agency for International Development (USAID). The non-government actors were the Campaign for Popular Education (CAMPE), the BRAC Education Programme (BEP), the BRAC Institute of Educational Development (BIED), and the BRAC Institute of Governance and Development (BIGD), etc. BRAC, BIED along with FRIENDSHIP NGO work with children who live in remote places and will be crucial in developing learning recovery strategies/remedial interventions for students in these areas in the future.

Stakeholder engagement was contingent on personnel availability and participation willingness. Stakeholders from the Directorate of Secondary and Higher Education (DSHE), National Curriculum and Textbook Board (NCTB), National Academy for Educational Management (NAEM), National Academy for Primary Education (NAPE), Campaign for Popular Education (CAMPE), the BRAC Education Programme (BEP) participated in the workshop. Monash University and Florida
International University researchers/academics were also consulted, as both researchers/academics have significant involvement in education research in Bangladesh.

In the appendix, stakeholders were mapped by creating a stakeholder matrix based on research and project implementation capabilities. Stakeholder interests were assessed based on the programmes/initiatives they have executed thus far, as well as the volume of evidence generated through their various research initiatives. Stakeholder power was defined in terms of their ability to undertake projects and generate evidence by scale (can undertake/implement larger-scale projects, would mean high power) (Figure A1).

The findings below summarise the observations garnered from the literature review and stakeholder discussions.

3. Pre-Pandemic State of Learning in Primary and Secondary Schools

This section summarises the evidence that exists, to assist us in comprehending the state of primary and secondary education in Bangladesh prior to COVID-19. This review of the literature is required to understand how the pandemic may increase existing system inefficiencies. This section will begin by examining pre-pandemic student achievement levels, followed by an evaluation of institutional determinants, and, finally, attempt to analyse the possible causes behind these low outcomes.

3.1 Student Learning Profiles: Primary and Secondary level (pre-COVID-19)

Figure 1: Percentage of students who performed below their grade levels in the National Student assessments for the years 2013, 2015, and 2017:
The National Student Assessment (NSA) was established in 2006 by the Ministry of Primary and Mass Education (MoPME) to assess students' academic achievement as specified in curricula and content standards for specific subjects (Bangla and Mathematics) (MoPME, 2017).

The National Student Assessments (NSA) in 2013, 2015, and 2017 revealed that the majority of evaluated students in Grades 3 and 5 performed below grade-level standards in Mathematics and Bangla (Figure 1). Learners classified at this level are reported to possess a bare minimum of skills related to curricular learning outcomes and would require constant guidance/direction throughout the learning process (MoPME, 2017).

In 2015, the Learning Assessment of Secondary Institutions (LASI) collected data on students' achievement in Bangla, English, and Mathematics in Grades 6 and 8, and the results are displayed below (Figure 2). The data below demonstrates that a sizable proportion of Grade 8 students earned marks below their subject averages. According to this report, students at this level were only capable of interpreting simple texts and phrases, responding to questions on straightforward informative and transactional texts, and connecting information contained in simple texts (DSHE, 2015). Moreover, both evaluations (NSA and LASI) revealed that students had significant difficulty...
answering problems that required the use of critical and analytical thinking skills. (Bhatta and Sharma, 2019; DSHE, 2015; MoPME, 2017).

**Figure 2**: The percentage of students performing below grade level averages in LASI administered tests for Mathematics, Bangla, and English:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangla</td>
<td>Grade 6</td>
<td>30%</td>
</tr>
<tr>
<td>English</td>
<td>Grade 6</td>
<td>29%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Grade 6</td>
<td>23%</td>
</tr>
<tr>
<td>Bangla</td>
<td>Grade 8</td>
<td>45%</td>
</tr>
<tr>
<td>English</td>
<td>Grade 8</td>
<td>51%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Grade 8</td>
<td>43%</td>
</tr>
</tbody>
</table>

Source: DSHE, 2015

The 2019 Multiple Indicator Cluster Survey (MICS) assessed students aged 7 to 14 to find their levels of foundational literacy and numeracy (UNICEF & BBS, 2019). Children are said to have developed core reading skills if they can accurately read 90% of the words in a story (presented in the tests) and correctly answer three literal and two inferential comprehension questions. If a child successfully completes a number or reading activities, a number discrimination exercise, and other pattern identification and completion problems, they are said to display foundational numeracy skills (UNICEF & BBS, 2019).

Findings from the national assessments are consistent with scores from other tests (ASER, MICS Foundation skills module) as depicted in the figure below (Figure 3 & Figure 4). The majority of pupils in Grades 1 to 4 lack basic literacy and numeracy skills, with older students possessing stronger reading abilities than younger students (Grades 5 to 10) (Figure 3). While children's literacy skills improve as they progress through the grades, they continue to lag in attaining core numeracy skills (MICS- UNICEF & BBS, 2019).

**Figure 3**: Share of children without foundational skills (by grade) (MICS)
Figure 4: Share of children without foundational skills (by grade) (ASER) (results depicted are for Sylhet only)

Source: BRAC-IID, 2015

Source: MICS, 2019- UNICEF & BBS, 2019
The Annual Status of Education Report (or ASER) tests, which are internationally recognised and validated\(^4\), assesses foundational literacy/reading skills (letter identification, word decoding, etc.) and numeracy skills (number recognition, subtraction, and division) in students aged 5 to 16 years. ASER assessments have been previously administered in several countries; however, ASER tests have been administered in Bangladesh in only two locations: Gaibandha and Sylhet (IID, 2015).

The second wave of the survey yielded results (as observed in Figure 4) for 791 primary school-aged children (aged 5 to 15 years) living in rural parts of two Sylhet districts (IID, 2015). The Bangla and English literacy tasks required children to accurately read at least four out of five words, while children were considered to have foundational numeracy skills if they were able to complete one out of two subtraction problems. The findings revealed that children at primary grade levels lacked a foundational set of literacy skills, as a significant proportion of students in Grades two, three, and four were unable to read simple English words (Figure 4). On exploring adult learning profiles, Kaffenberger and Pritchett (2017) found low literacy gains for adults that have completed a certain level of schooling.

Data on completed schooling levels and literacy scores from nationally representative surveys (The Financial Inclusion Insights (FII) surveys) indicated that only a third of 18 to 37-year-olds who completed primary school and 78% of those who have completed secondary school have attained functional literacy\(^5\), implying that low educational attainment in childhood persists throughout adulthood.

### Table 1: Summary of findings from various learning assessments

<table>
<thead>
<tr>
<th>Name of student assessment</th>
<th>Year(s) administered</th>
<th>Schooling level</th>
<th>Range of grades</th>
<th>Major findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Student Assessments (NSA)</td>
<td>2011(^6), 2013, 2015, 2017</td>
<td>Primary</td>
<td>Grades 3 and 5 (Bangla/Mathematics)</td>
<td>Poor scores were observed for Mathematics tests, for both Grades 3 and 5.</td>
</tr>
</tbody>
</table>

\(^4\) It has been successfully implemented in over 14 countries (e.g., Pakistan, Tanzania, Kenya, Uganda, Mali, and Senegal to name a few (Dundar et al., 2014; Vagh, 2012).

\(^5\) To create estimations of learning profiles, participants were asked to read the three-sentence consent form for the literacy test. Their answers were graded according to the fluency with which they read. They were judged "literate" if they could read the sentences fluently without aid or with moderate support. Those who struggled and received extensive assistance were classified as illiterate, as were those who were unable to read and requested aid from the interviewer.

\(^6\) The results for 2011 NSA weren’t included in this paper.
## Findings from multiple assessments of students' grade-level competencies and core literacy and numeracy skills demonstrate low levels of learning. Furthermore, it appears as though children's retention of knowledge does not improve as they progress through school, since performance levels remained poor even at higher grade levels. This implies that children's learning profiles remain shallow as they advance through school. Evidence from adult learning levels only reinforces findings for children, as most adults who have completed primary schooling don't possess functional literacy. This underscores the fact that Bangladesh was already suffering from a learning crisis prior to the COVID-19 outbreak.
3.2 Institutional Determinants of Education Quality

The scoping paper attempts to understand how various challenges within the education system may contribute to low learning outcomes across schools. Students typically undergo ten years of schooling on completing primary and secondary education, at which point they must sit for the Secondary School Certificate (SSC) examination. Detailed information on schools (derived from the most recent education data and reports) is provided in the following paragraphs.

3.2.1 Progress So Far

Bangladesh has made significant strides in terms of improving primary enrolment and cycle completion, as well as reducing student dropout rates (declining from 47.2% in 2005 to 17% in 2020) (DPE, 2020). Similarly, student-teacher ratios have decreased from 46:1 in 2010 to 34:1 in 2020 (APSC, DPE, 2020), and given the high expense of operating and maintaining smaller classes, even in stable educational institutions (Chingos & Whitehurst, 2011), efforts to reduce class sizes in resource-constrained environments are noteworthy. Despite the progress mentioned above, the system continues to struggle with challenges such as short school hours (for students enrolled in double-shift schools) and an insufficient number of certified teachers (DPE 2014; DPE 2020).

While similar progress has been made in terms of increasing secondary enrolment, school cycle completion, and reducing student dropouts over time (from 61% in 2008 to 35.7% in 2020), it is still significantly less than the progress observed for primary schools (in all three indicators) (BANBEIS, 2020). The student-to-teacher ratio has increased over time, rising from 34:1 in 2010 to 41:1 in 2020. Overall secondary student-teacher ratios are still high when compared to primary levels (41:1 vs. 34:1), despite junior secondary class sizes being smaller (21:1 in both public and private schools) than secondary class sizes (43:1 and 42:1 in public and private schools, respectively) (BANBEIS, 2020).

3.2.2 Teacher Quality

Recent and past evidence has continued to underline the importance of teachers and their role in providing students with a high-quality education; notably their subject knowledge, pedagogical expertise, and classroom teaching strategies have been found to have a positive effect on a students'
academic progress (Clark et al., 2020; Conn, 2017; Evans and Popova 2016, Glewwe et al., 2011; Hattie, 2008; Rowe, 2003; Snistveit et al., 2015, Wamalwa & Burns, 2018; Sanders and Rivers, 1996).

The effect of teacher quality on student achievement persists regardless of the mode of delivery, such that when all other factors are equal, students from a school with access to recorded online lessons taught by highly competent instructors scored academically better than students without (Clark et al. 2020).

Primary school teachers are required to complete a one-year programme (Certificate-in-Education (C-in-Ed)) where they acquire teacher certification and as of 2019, 67.81% of teachers have a Certificate in Education, which indicates that 32.19% of teachers did not obtain the certificate (DPE, 2020). Additionally, teachers must obtain certification for other forms of training, most notably subject-specific and information technology training programmes. Even though practically all primary school teachers (93%) had received subject-specific training, three-quarters of them reported having received no ICT training. ICT training was designed to provide them with the necessary skills to create e-learning content and facilitate the operation/use of multimedia in the classroom. Given that a sizable proportion of teachers remain untrained, it remains to be seen how they will fare teaching on digital education platforms. Irrespective of how promising the participation rate appears, the proportion of instructors receiving subject-based training has been declining due to the extensive preparation required for the training. (DPE, 2020).

Although secondary school teachers are required to hold a bachelor's degree at the entry level (Nath et al., 2019), reports indicate that 15% of secondary school Mathematics instructors are just high school graduates without tertiary qualifications/degrees. Additionally, around 33% of active secondary level teachers are reportedly untrained (BANBEIS, 2020). Evidence on secondary school teaching methods in Bangladesh reveals that the majority of teachers failed to implement their newly gained training skills during actual lesson delivery (Asadullah, 2016).

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7 While web searches yielded some evidence on teacher training evaluations (non-RCT) for secondary school instructors, no evidence was discovered for primary school teacher training programmes.
3.2.3 Time-on-Task

Previous research has found a link between time on task/instruction time and student outcomes (Abdulkadiroglu et al., 2011, Dobbie and Fryer, 2011; Kovanovic et al., 2015; Kupiainen et al., 2014; Lavy 2012; Moffett & Morrison, 2020). The magnitude of any causal relationship between achievement and instruction time is likely to be influenced by the quality of instruction, the classroom environment, and the rate at which students convert lesson time to learning (Rivkin & Schiman, 2015).

Recent reforms (PEDP3 and PEDP4) focus on increasing the quality of education, however shorter contact hours between students and teachers remain a concern. Bangladesh's primary and secondary schools operate in both double and single shifts (DPE, 2020). A two-shift arrangement accommodates two unique cohorts of students, with the first attending from early morning to lunchtime and the second from midday to late afternoon (Bray, 2008). As a result, enrolled students in schools that operate on double shifts receive fewer instructional hours than students enrolled in single-shift schools. The average timetable at double shift schools is three hours, however, children in grades 1-2 receive just two hours of instruction. Overall, only 520 hours of instruction were provided to grade 1-2 pupils, which is significantly less than the PEDP goal of 900 hours per year (ASPR, DPE, 2020).

As previously stated, longer contact hours result in more favourable learning outcomes; nevertheless, as demonstrated by these data, shorter instruction time may also attribute to students' low academic performance. These circumstances may alter in the future, as PEDP4 mentions initiatives to convert double-shift schools to single-shift schools, giving students more instructional time. (DPE, 2020).

3.2.4 Classroom Teaching Practices

Maintaining a dialogue/rapport between the student and the teacher, as well as promoting student participation/engagement and inquiry, are some examples of classroom education practices that can improve student performance (Hamre and Pianta 2005; Wamalwa & Burns, 2018).

Additionally, the review of evaluation evidence on 150 learning interventions (using randomised controlled trials or quasi-experimental methods) across 46 low-and-middle-income countries found

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8 Although effect of scores vary between language and maths
that structured pedagogy programmes\(^9\) and targeted school instruction at the level of the children's learning were some of the most effective ways to affect learning outcomes (Angrist et al., 2021; Conn, 2017; Evans and Mendez Acosta, 2020; Evans and Popova, 2016; Ganimian and Murnane, 2016; Glewwe and Muralidharan, 2016; Kremer et al., 2013; Snistveit et al., 2015; Banerjee et al., 2017).

From classroom observations, Nath et al., (2019) reported that secondary school instruction techniques in Bangladesh were “teacher-oriented” as lectures were non-engaging, both to and from students and teachers. The content taught was more focused on solving “test questions”\(^{10}\) and teachers were seen to emphasise memorisation and rote learning over creative and critical/analytical thinking (Nath et al., 2019).

To summarise, Bangladeshi primary and secondary schools have high student-teacher ratios (especially at the secondary level), practice traditional classroom instruction techniques, and have inadequately qualified/trained teaching staff (particularly at secondary levels).

Despite ongoing efforts to convert all schools to single-shift, students currently enrolled at double-shift schools continue to receive less instructional time. An analysis of student performance on national assessment tests (across grades and topics) reveals that scores varied by school type, teacher capacity, and student-teacher ratios, with lower student scores observed in schools with higher student-teacher ratios (Bhatta and Sharma, 2019). Global research indicates that effective classroom teaching methods, competent teachers, adequate instructional time, and small class sizes can all contribute to improving students’ learning outcomes; therefore, when taken collectively, the issues observed in Bangladeshi schools may have contributed to the low learning outcomes, and the consequent learning crisis.

4. How Will COVID-19 Affect Learning

COVID-19 is expected to directly affect students by disengaging them from learning (either at school or home), as the longer children stay away from studying/learning activities, the more likely it is that their

\(^{9}\) A combination of structured lesson plans, student books, teacher training, and instructional support

\(^{10}\) Questions that are likely to appear in their examinations.
skills would deteriorate, resulting in the formation of learning gaps (Grewenig et al., 2020; Andrew et al., 2020). Children from privileged families are more likely to have access to private tutors, digital devices (and reliable high-speed internet and internet-enabled devices), and stronger parental engagement than their less advantaged peers; hence, the duration of disengagement is expected to vary depending on the child's access to relevant resources (Angrist et al., 2021; Akmal et al., 2020). Given that involvement in any kind of remote lessons/distance learning has been demonstrated as more beneficial than non-participation (Agostinelli et al., 2022; Angrist et al., 2021; Clark et al., 2020; Schult et al. 2021), these children may fall behind their peers due to a lack of access to the appropriate resources.

Parental involvement in their children's education has been found to improve learning outcomes (Desforges & Abouchaar 2004; Fluori & Buchanan, 2004; Gest et al., 2004); however, the need for their engagement has become more crucial during the COVID-19 outbreak, since it may help bridge learning gaps caused by school closures (Conto et al., 2020). The level of parental education is likely to dictate the effectiveness of parental support in minimising probable learning loss (Agostinelli et al., 2022; Andrabi et al., 2020). Additionally, the transition to remote education imposes additional responsibilities on parents, which all guardians may not be capable of fulfilling equally (Agostinelli et al., 2022). Nevertheless, relying on parents as co-educators is expected to exacerbate educational disparities amid students in the same manner as it does when schools are open (Whitley et al., 2021).

The disruptions to family members' health/well-being are likely to place children in vulnerable circumstances (McGrath et al. 2020; Wilke et al. 2020), particularly if their parents are unable to afford future educational expenses or require them to step in and support the family, potentially leading them to drop out of school. (Wilke et al. 2020).

This implies that the intensity of such an impact on children's learning is likely to differ according to their access to relevant resources (technology/learning materials) and their level of parental educational engagement, both of which will vary by their socioeconomic status (wealthy vs. poor) and residence location (rural vs. urban; commercial areas vs. informal urban settlements). Moreover, the
magnitude of learning loss will also vary according to children’s prior learning levels, as children who are significantly below their foundational literacy and numeracy levels are likely to experience greater learning loss, especially if they were completely disengaged from any studying/learning activities during the closures (Angrist et al., 2021). As a result, the educational disparity across student cohorts is likely to widen (Agostinelli et al., 2022).

4.1 Government interventions during school closures

![Different learning interventions provided after COVID-19](source: BIGD-PPRC, 2021)

The initial remote education programmes were predominantly non-interactive and did not have any channel for students and teachers to communicate. A list of the non-interactive interventions that were given during this time is briefly overviewed below:

- The State-run Sangsad Bangladesh Television broadcasted pre-recorded lessons for primary, secondary, madrasah, and technical students under the supervision of respective directorates (and with technical help from A2i). The classes were based on the annual lesson plan and students were given regular homework, as they would receive from school-based classes. The first class was aired on March 29 2020 for secondary students. Later classes for primary, technical, and madrasah students were aired from April 7, April 19, and May 5, respectively (A2i, 2020).
- Bangladesh Betar has been broadcasting classes for primary students through its station and 16 community radio stations simultaneously, from Sunday to Thursday from 4:05 p.m. to 4:45 p.m.
• Students joined these classes through radios or mobile phones. In addition, the A2i programme has conducted over 200 interactive radio classes with the help of teachers from the Directorate of Technical Education, along with support from UNICEF.

• Under the leadership of the Ministry of Education, the University Grant Commission (UGC), and a2i, the ICT Division developed a virtual platform for the organization of different types of live classes and training sessions.

• A Facebook page named Ghore Boshe Shikhi, owned by the Directorate of Primary Education (DPE) and run by a2i, aired classes.

• An a2i specialized platform for adolescents, Konnect Kishore Batayon also aired classes for adolescents, Online classes were also broadcasted from the Konnect YouTube channel.

As school closures prolonged, teachers started holding online classes, with some providing private tuition as well. This then eventually progressed to an assignment grading where each week, teachers assigned three assignments based on brief syllabuses that could be completed in 30 days\(^\text{11}\). Due to the online nature of the classes, the authorities instructed teachers to finish the work necessary to receive assignments, grade them, and present them to students with remarks. This was perceived to be a hybrid method.

### 4.2 Government response after school reopening

The NCTB has developed a remedial package for elementary school students and is presently focusing on another for secondary school students. The programme is intended to include a selection of topics from all of their curriculum subjects; teacher training on nutrition and mental health will also be provided. The government has initiated a policy that will allow students to continue their education through a combination of online and in-person instruction, dubbed "Blended Education". Although schools have resumed, a combination of in-person and online classes will be held to prepare students for future school closures caused by pandemics.

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\(^{11}\) [https://bdnews24.com/education/2021/03/01/bangladesh-launched-assignment-based-online-education-in-pandemic-did-it-work](https://bdnews24.com/education/2021/03/01/bangladesh-launched-assignment-based-online-education-in-pandemic-did-it-work)
5. How do school closures affect learning?

This section will review the studies conducted to date on students' time management patterns, educational engagement through various modalities (online schools, external help (teacher, parent, tutor, self-study), and the constraints they are likely to encounter during the process of relearning (financial, motivational, and institutional barriers). The Annex has a table outlining detailed information on the studies reviewed in this section (Table A1).

5.1 Pattern of student time-use during the school closure

5.1.1 Time engaged in learning

The initial consequences of school closures revealed a clear pattern of decreased study time at home and increased time spent on household tasks and caring for other family members (Biswas et al., 2020; BRAC, 2020; Makino et al., 2020). One research found that just 28% of students maintained their studies as they did before the pandemic (BRAC, 2020). Students ascribed their inadequate study time on a lack of instructional support and direction from schools, and a conducive learning environment, which was particularly true for students residing in rural areas. Meanwhile, urban students attributed their low study time to declining mental health (BRAC, 2020; Biswas et al., 2020).

Without pre-pandemic data on the same cohorts, an increase or decrease in learning time due to school closures cannot be fully validated. However, self-reported time spent learning (on a typical weekday in December 2020) suggests that it may have improved when school closures were extended, reversing the initial decline in study time (CAMPE, 2020).

Between November and December 2020, the Education Watch survey gathered extensive information on how students used their time during school closures to gain a better understanding of their participation in learning activities (Table 2). The underlying notion was that the more engaged a learner is, the less likely he or she may encounter substantial learning gaps. Students reported engaging in several activities, including learning (through online materials, self-study, and with the help of private tutors or family members) and working (to generate income and assist at home), as illustrated in the chart below. Students in urban areas and secondary schools indicated a higher level of academic
engagement than their rural and elementary school counterparts. In comparison to their classmates from other regions, students living in urban informal settlements (slums) engaged in the fewest educational activities and worked the most (Table 2). It is worth mentioning that students across all areas and grade levels reported contributing to their families' income-generating activities in some capacity (Figure 8). This was notably true for male secondary school students and for those dwelling in urban informal settlements, who reported working an average of more hours than their peers. Female students in primary and secondary schools reported working an average of three hours per day, less than their male counterparts. Male students remained as engaged in their studies as their female peers at comparable grade levels but worked longer hours.

Table 2: Student’s self-reported time use pattern on a typical weekday during school closures (Nov-Dec 2020)

<table>
<thead>
<tr>
<th>Region</th>
<th>Average time spent learning/day</th>
<th>Average time spent working/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Urban</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Urban slum</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School level</th>
<th>Average time spent learning/day</th>
<th>Average time spent working/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Secondary</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Overall</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Gender</th>
<th>School level</th>
<th>Average time spent learning/day</th>
<th>Average time spent working/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Primary</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Female</td>
<td>Primary</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Education Watch Report, CAMPE, 2020; Note: Learning activities represent learning through online materials, self-study, and studying with external help while time spent working is the aggregate of the average hours spent on helping at home (unpaid family labour/household chores) and paid work.

Disaggregation by grade, gender, and area reinforces the previous discussion; nevertheless, female secondary school students living in urban informal settlements spent the least amount of time engaged in academic activities and were less likely to attend online classes compared to their grade level and regional peers (Figure 6 & 7) (CAMPE, 2020).

Figure 6: Disaggregation of time spent in learning and work (by grade, gender, and residence)
Students reported involvement in studies through all three modes, although the vast majority (99.5%) of their learning occurred via their own efforts, while approximately 32% took part in online classes and 37.8% sought study support from a tutor or family member (CAMPE, 2020). Similarly, a recent survey conducted by the Asian Development Bank (ADB) revealed that primary school children spent a significant amount of time studying alone (49%), which was most prevalent in rural (52%) and impoverished (54%) households (ADB, 2021).

Contrarily, when data on the type of learning engagement from the Education Watch study were disaggregated by grade, gender, and location (Figure 7), it was discovered that secondary students (of both genders), particularly those residing in urban areas, received less academic support (from tutors/family members) than their juniors and regional peers.

Source: Education Watch Report, CAMPE, 2020
Figure 7: Distribution of various learning-related activities (out of average time spent in learning/day) (self-reported)

<table>
<thead>
<tr>
<th>% Share of learning activities</th>
<th>Online/remote lessons</th>
<th>Studied with private tutor or other’s help</th>
<th>Self-study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Female Urban-slum</td>
<td>11%</td>
<td>27%</td>
<td>61%</td>
</tr>
<tr>
<td>Secondary Male Urban-slum</td>
<td>24%</td>
<td>27%</td>
<td>48%</td>
</tr>
<tr>
<td>Primary Female Urban-slum</td>
<td>15%</td>
<td>28%</td>
<td>57%</td>
</tr>
<tr>
<td>Primary Male Urban-slum</td>
<td>16%</td>
<td>31%</td>
<td>53%</td>
</tr>
<tr>
<td>Secondary Female Urban</td>
<td>17%</td>
<td>24%</td>
<td>59%</td>
</tr>
<tr>
<td>Secondary Male Urban</td>
<td>17%</td>
<td>25%</td>
<td>58%</td>
</tr>
<tr>
<td>Primary Female Urban</td>
<td>14%</td>
<td>27%</td>
<td>59%</td>
</tr>
<tr>
<td>Primary Male Urban</td>
<td>15%</td>
<td>27%</td>
<td>58%</td>
</tr>
<tr>
<td>Secondary Female Rural</td>
<td>15%</td>
<td>27%</td>
<td>57%</td>
</tr>
<tr>
<td>Secondary Male Rural</td>
<td>13%</td>
<td>27%</td>
<td>60%</td>
</tr>
<tr>
<td>Primary Female Rural</td>
<td>13%</td>
<td>33%</td>
<td>54%</td>
</tr>
<tr>
<td>Primary Male Rural</td>
<td>13%</td>
<td>33%</td>
<td>54%</td>
</tr>
<tr>
<td>Secondary Female Primary</td>
<td>16%</td>
<td>26%</td>
<td>59%</td>
</tr>
<tr>
<td>Male</td>
<td>15%</td>
<td>26%</td>
<td>59%</td>
</tr>
<tr>
<td>Primary Female Primary</td>
<td>15%</td>
<td>29%</td>
<td>56%</td>
</tr>
<tr>
<td>Male</td>
<td>15%</td>
<td>29%</td>
<td>56%</td>
</tr>
</tbody>
</table>

Source: Education Watch Report, CAMPE, 2020

5.1.2 Time Engaged in Working

In conformity with social traditions dictating that household activities are mainly a female’s responsibility, multiple studies have found that female members of the home performed most of the housework during school closures (BRAC, 2020; Makino et al., 2020; Raha et al., 2021; Biswas et al., 2020). Previously, attending classes at schools would have kept female adolescents from becoming overburdened with housework, which, however, become a reality for them during school closures (Raha et al., 2021).

Corroborated by previous research, CAMPE (2020) statistics also indicate that females are the most involved in domestic tasks. Senior female cohorts were largely involved in helping with household chores and care activities (Figure 8), which was observed for junior girls in rural locations as well (CAMPE, 2020; Asaduzzaman et al., 2021). Additionally, female adolescents were shown to be less involved in productive activities than male...
adolescents (Asaduzzaman et al., 2021). Even though male students across grade levels and regions spent more time on income-generating activities, evidence suggests that school closures encouraged boys to participate in household chores as well (Asaduzzaman et al., 2021; Raha et al., 2021; CAMPE, 2020). Nevertheless, boys reported that their families often minimized their portion of household tasks to allow them to concentrate on their academics, something which was not repeated for girls (Asaduzzaman et al., 2021). As a majority of the boys were engaged in income-generating work for the family, there is a high likelihood of them dropping out of school (UNESCO, 2021).

Figure 8: Distribution of time spent working (out of average time spent working/day) (self-reported)

Following a disaggregation of wealth quartiles, Biswas et al. (2020) observed that adolescents from the poorest quartiles spent substantially more time on household chores than their more affluent peers.

5.2 Student engagement with education during school closures

5.2.1 Access to technology and participation rates

As classes were remotely delivered during school closures, children's lack of access to necessary technologies prevented them from participating in distance learning activities. As various surveys indicate, a large proportion
of households and their children lack access to televisions, smart phones, computers, laptops, tablets, and the internet/Wifi (Table 3). Inequitable access to technologies is represented in the data (Table 3) demonstrates that students from rural areas and impoverished homes have the least access to appropriate technologies and internet connectivity, which prevents them from enrolling in/participating in online classes.

Table 3: Children’s access to various technologies (according to various reports) and regions

<table>
<thead>
<tr>
<th>Study</th>
<th>% Children with access</th>
<th>TVs</th>
<th>Radio</th>
<th>Mobile Phones</th>
<th>Smart Phones/Computers/ laptops/tablet</th>
<th>Internet/Wi-fi</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>Overall</td>
<td>44%</td>
<td>6%</td>
<td>96%</td>
<td>42%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>% Rural children</td>
<td>31%</td>
<td>7%</td>
<td>96%</td>
<td>38%</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>% Urban children</td>
<td>76%</td>
<td>4%</td>
<td>96%</td>
<td>52%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>% Urban-slum children</td>
<td>74%</td>
<td>4%</td>
<td>97%</td>
<td>55%</td>
<td>24%</td>
</tr>
<tr>
<td>CAMPE</td>
<td>Overall</td>
<td>62%</td>
<td>2.3%</td>
<td>89%</td>
<td>54%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>% Rural children</td>
<td>48.1%</td>
<td>1.6%</td>
<td>91.3%</td>
<td>42.8%</td>
<td>16.3%</td>
</tr>
<tr>
<td></td>
<td>% Urban children</td>
<td>75.4%</td>
<td>3.9%</td>
<td>84.1%</td>
<td>68.0%</td>
<td>36.0%</td>
</tr>
<tr>
<td></td>
<td>% Urban-slum children</td>
<td>79.8%</td>
<td>0.8%</td>
<td>96.7%</td>
<td>65.0%</td>
<td>35.4%</td>
</tr>
<tr>
<td>World Bank</td>
<td>Overall</td>
<td>48.1%</td>
<td></td>
<td>37.6%</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>% Students with below</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.8%</td>
</tr>
<tr>
<td></td>
<td>median wealth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% Students with above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28.6%</td>
</tr>
<tr>
<td></td>
<td>median wealth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIGD-PPRC</td>
<td>Overall</td>
<td>27%</td>
<td>29%</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% Rural children</td>
<td>20%</td>
<td>29%</td>
<td>32%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% Urban-slum children</td>
<td>33%</td>
<td>29%</td>
<td>35%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: CAMPE, 2020; ADB, 2021; BIGD-PPRC, 2021; Biswas et al., 2020

Student engagement in online classes is expected to vary based on device availability and connectivity, and survey findings indicate that rural students and students with disabilities have low participation rates in online classes (Table 4). However, the adoption of online classes/remote learning programmes was reportedly low across all school levels (Table 4).

Table 4: Student’s participation in online classes/remote lessons according to different survey estimates

<table>
<thead>
<tr>
<th>% Share of students' that didn’t participate in any form of remote teaching/schooling (TV, online, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
</tr>
<tr>
<td>Primary (low-income areas)</td>
</tr>
<tr>
<td>CAMPE</td>
</tr>
<tr>
<td>Overall</td>
</tr>
<tr>
<td>Primary</td>
</tr>
<tr>
<td>Secondary</td>
</tr>
<tr>
<td>BIGD-PPRC</td>
</tr>
<tr>
<td>Overall</td>
</tr>
<tr>
<td>BRAC</td>
</tr>
<tr>
<td>Overall</td>
</tr>
<tr>
<td>Rural</td>
</tr>
<tr>
<td>Urban</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Children with disabilities</td>
</tr>
<tr>
<td>WB</td>
</tr>
<tr>
<td>Secondary (urban)</td>
</tr>
</tbody>
</table>
The Gender and School Closures Analysis (GSCA) analysed the gender implications of a hybrid low-tech/high-tech remote learning intervention aimed at primary and secondary school pupils in Bangladesh.

The interventions took the form of televised teachings that aired on the official channel of Bangladesh, ‘Sangsad Bangladesh’, radio programmes/broadcasts, and YouTube classes. For primary school students, individual courses were taught in 20-minute segments for a total of two hours, while ten 20-minute classes were televised for secondary school students, with recorded classes for grades 6 through 10 streamed to two YouTube channels. Lessons were also broadcast on community radio, with UNESCO supporting primary school radio broadcasts for grades 1–5.

Additionally, teachers issued weekly assignments (16 assignments over 45 days) that learners were required to complete in-person or online (UNESCO, 2021). While survey responses suggested that television was the most readily accessible medium of remote learning, self-reported involvement with televised classes was extremely low, with only one-third of female participants reporting that they had attended only televised lessons. As school closures persisted, the percentage of girls who did not study had grown (UNESCO, 2021). Even while self-reported participation in informal private tutoring climbed from 5% (round 1) to 25% (round 3), low-income households were incapable of availing private tuition (UNESCO, 2021).

Other reports indicate that rural students are the least likely to participate in online education, with a primary reason being a lack of access to and ownership of technological facilities necessary to conduct online classes at home (69% reported not having a facility/device at home to conduct online classes, while 7.8% reported not having access to those devices) (CAMPE, 2020). Adolescents from affluent families or urban areas received more academic support from schools, had greater access to internet resources, and were more likely to remain engaged in academics through online resources and television programmes than their rural and impoverished peers (Asaduzzaman et al., 2021; Biswas et al., 2020).

These findings were corroborated by teacher interviews, in which rural teachers expressed concern about the difficulty of pursuing remote classes, given that the majority of rural pupils are unable to participate (CAMPE, 2020). Urban teachers also noted a low level of student participation, as well as the notion that online sessions were not as beneficial/effective as in-person lessons (CAMPE, 2020). Financial constraints, according to in-depth interviews, prevented disadvantaged adolescents living in urban informal settlements from participating in online programmes (Raha et al., 2021). Other difficulties included an inability to communicate with teachers; a lack of resources (e.g., no smartphones at home, a single phone shared by multiple siblings, slow internet connections, and expensive internet subscriptions); a lack of private study space at home; and structural and technical issues with television classes (e.g., poor audio and video quality) (Raha et al., 2021).

The gender disparity in access to devices/internet connectivity can also affect the percentage of online class participation as surveying adolescents from Dhaka, Mymensingh, Sylhet, and Chittagong revealed that boys were more likely than girls to have access to mobile learning apps, internet, television or radio time for learning, and books or learning materials to use at home (Asaduzzaman et al., 2021; Biswas et al., 2020). Housework, particularly for adolescent females, was another barrier to distant learning, according to qualitative findings from interviews with adolescent girls living in urban informal settlements (Raha et al., 2021). Female students
reported more frequent interruptions during their study time than male students since they were required to complete chores.

Additional constraints they faced in accessing online content were poor digital connectivity and a lack of finances to acquire internet data. Except for a few older and married teenagers, none of the female adolescents interviewed had their own phones and attended online classes using their parents’ or siblings’ (mainly brothers’) phones. According to the researchers, one possible explanation for the gender disparity in access to devices is that parents of female adolescents were more cautious and wary of their daughters becoming involved in romantic relationships at an early age, and thus granted them limited mobile access in comparison to male peers (Raha et al., 2021; UNESCO, 2021).

5.2.2 Family Support in Children’s Education During School Closures

Parents with an average of five years of schooling were found to be unprepared to engage their children academically, assess their development, and provide direction, indicating a perceived lack of effective parental support among urban students’ families (Biswas et al., 2020). Despite their lower educational levels, urban parents had a high level of involvement with their children, particularly mothers, who were more involved in their children’s education (Biswas et al., 2020). Furthermore, the BIGD-PPRC study found that the mother’s education had a considerable impact on levels of supervision and engagement, with a more educated mother increasing the likelihood of parental involvement in educational activities (BIGD-PPRC, 2021). This, however, varies according to student socioeconomic position, and grade level, with primary school children and students from wealthier families reporting receiving more assistance from a family member or guardian than their peers (BIGD-PPRC, 2021; Biswas et al., 2020). When we examined research on mothers’ time use, the mother’s participation in their children’s education became more apparent.

As the pandemic spread across Bangladesh, families began to distance themselves from domestic helpers who had traditionally assisted with the majority of household chores (Ehsan & Jahan, 2021). As a result, domestic workload rose, with female household members having to bear the brunt of it (UN Women 2020). Additionally, mothers were required to set aside time for aiding their children (younger children) with online classes, in addition to the increasing house and care labour (Ehsan & Jahan, 2021). Tas and Ahmed 2021 investigated the time patterns of mothers in Dhaka’s urban informal settlements and low-income neighbourhoods who had and did not have access to childcare.

According to their findings, women with access to childcare may devote at least an additional 1.2 hours per day to market work12, compared to mothers without access to childcare. The disproportionate increase in care work, housework, and a lack of domestic support caused several working mothers to forsake their occupations for their family members (Ehsan & Jahan, 2021), and school closures have likely contributed to females exiting the labour sector as well. Increased housekeeping and care work is expected to reduce mothers’ engagement with their children, although additional research needs to be done to elucidate the possible consequences on children’s learning.

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12 Market work is defined as time spend on: work as employed, own business work, staple grain farming, horticultural (gardens) or high value crop farming, large livestock raising (cattle, buffaloes), small livestock raising (sheep, goats, pigs), poultry and other small animals raising (chickens, ducks, turkeys), and fishpond culture.
Furthermore, qualitative interviews demonstrate that both girls and boys rely on their parents, siblings, and extended family to attain their goals, yet there exist intrinsic gender disparities in obtaining family support (GAGE, 2021). Parents reportedly prioritize boys' education above girls' education, moreover, 22% of adolescents agree or partially agree that girls should only be sent to school if they have no domestic tasks to attend to, with boys being more likely to hold this perspective than girls (GAGE, 2021).

Even though some evidence was found on parent engagement with children living in urban informal settlements (they reportedly struggled to monitor their children at home (CAMPE, 2020)), rural parent engagement was not explicitly established. Moreover, we observe that parental education levels are low, even in urban areas, hence, there is scope to examine how parental education and engagement levels have impacted their learning time and, more crucially, learning quality.

5.2.3 Teacher support in pupil’s education during school closures:

Students' success and attentiveness in remote learning or self-study can be influenced by the assistance and advice they receive from their teachers/tutors and/or family members, and the Education Watch survey found that the majority of students (72%) rely on their parents and other families/household members for support (CAMPE, 2020). Nonetheless, according to data from a survey of both teachers and students, teacher assistance was limited during school closures, with a portion of secondary school students and rural children receiving no teacher assistance (37% vs. 39%) (CAMPE, 2020).

According to data collected from surveys of primary school children, teachers did not monitor or counsel primary school students, with 43% reporting no interaction with teachers. Additionally, there were disparities in teacher support for learning, with fewer teachers reported to have contacted primary-level male students, adolescent females, rural, and poorer students (ADB, 2021; Asaduzzaman et al., 2021). Apart from that, teacher support differed according to school type, with adolescents enrolled in government schools receiving more teacher support than those attending Monthly Pay Order or semi-private secondary schools (Asaduzzaman et al., 2021). Adolescents indicated that they predominantly learned through assignments during school closures, where girls reportedly had to submit more assignments than boys (41% vs. 23%) (Asaduzzaman et al., 2021).

6. Back-to-school? Possible barriers to learning recovery

Evidence from past disruptions to education, such as the 2005 Pakistan earthquake, indicates that, in the absence of corrective interventions, learning deficits may persist even after children return to school (Andrabi et al., 2021).

Thus, the overarching goal should be to retain students in school and to ensure that they attain at least the same level of proficiency as student cohorts before the pandemic (UNICEF & WB, 2021). Examining the evidence on COVID-19's educational consequences indicates that challenges encountered during school closures are likely to impede student enrolment and attendance, preventing them from effectively recouping learning losses. In
that context, we identify three possible barriers which may impede students' learning recovery: financial restrictions, student educational motivations/aspirations, and institutional (schools/teachers) constraints.

### 6.1 Financial Constraints

Transitioning to new modes of teaching and learning imposed additional costs on households, with rural and families from urban informal settlements bearing the brunt, as they were already struggling to meet basic needs (CAMPE, 2020; ADB, 2021). Student households in urban informal settlements saw a bigger decline in income and expenditure since the majority of these families relied on informal employment that was adversely affected by the lockdowns (ADB, 2021). Families reported lowering their food consumption, borrowing food, seeking assistance from a friend or relative, exhausting their savings, and borrowing money to meet basic needs, consequently driving many of these families into debt (Biswas et al., 2020; ADB, 2021; Raha et al., 2021).

Along with the difficulties involved with fulfilling daily necessities due to the pandemic, a fifth of surveyed parents indicated that the additional expenses associated with organizing or maintaining remote education had taken a financial toll, particularly in rural communities. Additionally, interviews with school-going adolescents from urban informal settlements reveal that parents urged their children to work during school closures as well (Raha et al., 2021). Primary school children are also at risk of dropping out and never returning, with the probability of dropping out much greater for male children and students living in urban informal settlements (ADB, 2021; CAMPE, 2020). Schoolchildren from urban informal settlements also believe they will be unable to attend classes as regularly as they did prior to the pandemic, due to a lack of financial resources to cover educational fees (ADB, 2021).

Such income reductions may harm future educational expenditures, indicating that when schools resume, children from severely afflicted households may experience financial constraints in attending, possibly leading them to drop out (ADB, 2021). Additionally, the reduction in income is likely to affect their investment in supplementary education services such as private tuition, which in turn will affect the rate at which they recover unfinished learning (ADB, 2021).

Moreover, school closures have resulted in an increase in child brides (MJF, 2020), with reports indicating an increase in child marriages in the first six months following the closure. The pandemic has been reported to have disrupted prior efforts to end child marriages\textsuperscript{13-14}. Despite being aware of the legal age and the risks associated with early marriage, female adolescents from families in financial distress, who live in areas where they are subject to constant harassment (often in urban informal settlements), and who have been confined for extended periods due to school closures have shown a preference towards early marriage\textsuperscript{15}.

Girls in these areas and situations believe marriage to be a better alternative than the life they are currently living (Raha et al., 2021). According to the GSCA longitudinal surveys in Bangladesh, the COVID-19 school closures had a major influence on child marriages, which had reportedly spiked by 50% in just six months (April (round 1) – September (round 3), 2020) (UNESCO, 2021). Additionally, between April and September 2020, the

\textsuperscript{13} COVID-19 resulted in more child marriages. Why? - The Good Feed (brac.net)
\textsuperscript{14} Snapshot: 30 ways BRAC supports girl children - The Good Feed
\textsuperscript{15} Snapshot: 30 ways BRAC supports girl children - The Good Feed; COVID-19 resulted in more child marriages. Why? - The Good Feed (brac.net)
proportion of girls who were married climbed from 13% to 23% (UNESCO, 2021). Financial constraints/pressures were reported to have had a significant role in families hastening their daughters' marriages. These circumstances may also dissuade female students from pursuing educational opportunities.

As schools re-opened in September 2021, fear regarding student dropouts among instructors and other education officials intensified, as news reports highlight low attendance rates in class and examinations at all primary and secondary school levels (overall classroom attendance from the primary to the higher secondary level across the country was 67%)[16][17]. If this persists, then there is a high likelihood that these students may drop out entirely. It was expected that the attendance rate would gradually increase. However, statistics from the first three weeks of in-person classes indicate a rather depressing picture, as attendance has continued to decline almost daily, reaching 55% on 28th September 2021. Interviews with various education officials/school authorities (teachers, headmaster) revealed that the non-attending students were either preparing for their SSC exams (those who are absent in class but continue submitting assignments) or were engaged in income-generating work[18].

The rising absenteeism from classes following the reopening of schools and colleges across the country warrants immediate concern, and whether or not these students return to school is merely a matter of time. As a result, financial constraints can be a substantial barrier to students recouping learning losses.

### 6.2 Student Motivational barriers

Students' motivation levels have been proven to be influenced by the physical learning environments in which they are placed (Dey & Bandyopadhyay, 2019), and confinement inside homes to adhere to quarantine rules may have resulted in a decrease in student motivation. Surveys conducted within a few months of school closures revealed that at least 13% of students expressed disinterest in studying, which was more prevalent among rural students, secondary level students, and students with disabilities (BRAC, 2020). As school closures were prolonged, low motivation to learn was also observed among most primary school children, with male students being less motivated than girls (ADB, 2021).

Adolescents in urban informal settlements reportedly struggled to study independently (Raha et al., 2021). When schools were open, this was easier to address, but with schools being closed, these students were unable to seek help with their studies. Furthermore, several also expressed reluctance to seek answers to their queries through online classes (Raha et al., 2021). Without sufficient instructor guidance and feedback, these students are likely to lose motivation in continuing their studies during school closures. Household wealth and gender norms were found to influence girls’ educational goals, experiences, and earning prospects (GAGE, 2021). Before school closures, girls and boys both equally intended to achieve tertiary education, however, when schools remained shut for extended periods, the share of females motivated to attain a higher degree, declined (Asaduzzaman et al., 2021).

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[16] School attendance continues to drop, yet authorities stick to ‘wait-and-watch’ policy (tbsnews.net)
[17] Schools cry for lost learners (tbsnews.net)
[18] Turnout in class dropping off | The Daily Star
An evaluation of 400 Bangladeshi primary school students (Grade 3) conducted between September 2019 and February 2020 revealed a high incidence of insufficient numeracy skills, with the majority of students failing to perform grade level arithmetic problems\(^{19}\) (NAPE, 2020).

To prevent students from dropping out of school, the government decided to automatically promote students from pre-kindergarten through Grade 9 in 2020\(^{20}\)\(^{21}\). Auto-promotion at schools around the country could be especially challenging for pupils who have previously struggled academically. If they had little academic engagement during extended school closures, it is quite likely that they may not possess the essential competences and skills for the grades they would be attending when school resumes.

Government measures such as student evaluation through assignments (open-book assignments) and auto-grade level promotions have demotivated children from studying during school closures, according to interviews with school-aged adolescents (in urban informal settlements) (Raha et al., 2021). Even though some students believed that these assignments had no bearing on their academic performance, others believed that they would help them enhance their writing skills (Raha et al., 2021). Furthermore, parent and teacher testimonies suggest that children frequently struggled to understand the questions and exercises assigned to them in their homework\(^{22}\). As in-person classes resume, it is feared that students who had little learning continuity during school closures and academically weaker students may have to live with a learning gap for the rest of their academic lives, and with a high likelihood of them losing motivation and dropping out if the school’s academic curriculum becomes too overwhelming for them.

6.3 Institutional Constraints: Schools and Teachers

Any discussion of learning recovery must take the pandemic’s impact on teachers into account, as teacher quality has been identified as one of the most crucial in-school determinants affecting student achievement (Carey 2004; Hattie 2009; Hargreaves, 2021). Many schools and teachers were unprepared for the inherent difficulties of distant education in resource-constrained environments\(^{23}\) (Whitley et al., 2021).

This was reflected in teacher self-reports, with the majority of them stating they lacked appropriate ICT abilities and need additional training (CAMPE, 2020). Furthermore, it was reported that school administrators and teachers in rural locations lacked the essential logistical support, such as sufficient internet speed and electricity access, to conduct online classes. Teachers also reported feeling demotivated from conducting remote sessions due to low student participation rates\(^{24}\). Teachers located in char regions were already having difficulties before the outbreak, and complete school closures may have compelled them to migrate or seek alternative employment. Over a fifth of the teachers reported experiencing some form of mental distress, with urban instructors reporting a higher rate (CAMPE, 2020).

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\(^{19}\)Test sums included division of a three-digit number by a one-digit number, correct identification of the components in division/multiplication operations – dividends, divisors, quotients and remainders/ multiplicand, multiplier, and product in a multiplication operation; word problems related to divisions.

\(^{20}\)Execution of remedial learning packages up in the air (tbsnews.net)

\(^{21}\)Why primary school students are struggling with numbers (tbsnews.net)

\(^{22}\)Assignments not enough to mitigate students’ learning losses: Experts (tbsnews.net)

\(^{23}\)Google study outlines onboarding challenges for new internet users (tbsnews.net)

\(^{24}\)Many teachers land in odd jobs (tbsnews.net)
Numerous private schools discontinued operations in March 2020 as a result of a lack of funding to operate these institutions. This compelled the majority of private school teachers, who were already struggling to make ends meet on modest salaries, to seek employment or switch professions. For those who remained employed, previous sources of supplementing their income through tuitions were also eliminated; hence, with low wages and no alternative source of income, private school teachers were particularly hard-hit by the COVID-19-induced school closures.

This is highly distressing for students enrolled in these institutions since they will now be obliged to transfer or, in some cases, drop out if these private institutions were their only source of education. Apart from what may be gleaned from news articles, the precise effect of teacher shortages or institution closures on students’ education has not been investigated; thereby, evidence generation in this area is necessary.

Before the pandemic, teachers were found incapable of developing their exam papers, frequently basing them on previously administered exams or unauthorised guidebooks (Nath et al., 2019). The majority of secondary-level science teachers (Mathematics, Physics, Chemistry, and general science) lacked adequate subject training, impeding their ability to provide high-quality instruction to their students (Nath et al., 2019). During school closures, the government reportedly administered subject-based teacher training programmes online in four sub-districts in Bangladesh (UNICEF & UNESCO, 2021), which could likely have excluded rural teachers with poor digital access/low connectivity. Lack of involvement with teaching may result in teachers experiencing some type of learning loss, posing considerable issues in terms of equipping students who will resume lessons with varying degrees of learning gaps.

### 7. Evidence on marginalised student groups

Disruptions in learning have emerged as a major source of concern, as children in Bangladesh have missed over a year of schooling, and remote teaching alternatives have frequently proven problematic due to inequitable access. (UNESCO 2020; Vegas 2021; Dorn et al. 2020; Balingit 2021). Regional, gender and socioeconomic disparities can affect children’s years of schooling and their learning prospects, as observed from the evidence above. However, the education status of marginalised students is expected to face the most impact from COVID-19. This section highlights evidence gathered for three such student groups: Students in remote areas, students on the streets, and students with disabilities.

On the other hand, COVID-19 is anticipated to have the greatest impact on the education of marginalised students. This section highlights the findings gathered for three distinct student groups: Students who live in remote areas; Students who have no stable home/live on the streets and students with disabilities.

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25 Bangladesh teacher-student ratio (TSR): Teacher shortage makes education recovery a stiff job | The Business Standard (tbsnews.net)
26 Many teachers land in odd jobs (tbsnews.net); Without income for a year, schoolteachers seek govt aid (tbsnews.net); School shut; headmaster tends to cattle for a living (tbsnews.net); Covid-19 Impact on Education: Kindergarten founder resorts to homeopathy (tbsnews.net)
7.1 Children in Remote Areas

Although survey evidence is scarce on the quality of learning for children living in chars/haors (wetlands) or coastal belts, or on the streets, information gleaned from various news articles paints a very grim image.

On average, children who live in low-lying areas receive fewer school years than their regional peers. Prior to the COVID-19-induced school closures, the majority of schools in char areas remained closed for at least three months during the monsoon season, as attendance was difficult for both students and staff. The commute to and from school is challenging for both students and teachers, as it requires either walking long distances across sandy embankments or crossing rivers in country boats that can be expensive to rent regularly. Additionally, roadways and schools are routinely inundated or flooded, making it nearly impossible for students to attend class consistently.

Teachers are frequently located on the mainland, and the difficulties associated with commuting to these remote regions lead them to hold classes only once or twice a week, and for reduced hours (teachers reportedly arrived late and left early). Teachers' daily hardships deter them from seeking positions in these areas, resulting in teacher vacancies that end up being filled in by less qualified locals (individuals who are only high school graduates). Additionally, permanent school constructions in such locations are impractical since they often disintegrate as a result of erosion and other natural calamities. Students in these places are deprived of access to schools themselves since the location often precludes the construction of more schools, and those that do exist frequently remain closed. Even before the pandemic, students in remote areas were not attaining basic education.

A sizable majority of char students lack electrical connectivity since chars on the Padma, Jamuna, Teesta, and other major rivers are not electrified. Alternative energy sources are more common in these places (for example, solar panels used to charge mobile phones and power fans and televisions), although the quantities were still relatively small. These conditions prevented schoolchildren in char regions from accessing any of the government's remote education programmes.

Most parents in the char region lack the education and experience essential to teach their children. Additionally, parents in the char areas are unable to afford house tutors or are unaware of the importance of continuing their children's studies at home. Reports also indicate that many poor families on the chars have come to rely on the stipends their children received for attending school, which have ceased since schools were closed.

Many parents in the haor/char regions marry their daughters at an early age to ensure their daughters' financial and social security. There are no definitive studies on whether child marriage rates have increased in these areas.

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27 Char children getting poor schooling | Daily Star (thedailystar.net); Children in Jamuna chars denied proper learning | The Daily Star
28 Impact of Flood: No classes in 30 schools in Kushtia | The Daily Star; 400 schools still flood affected | The Daily Star
29 Char teachers' struggle with daily commute | The Daily Star
30 Shutdown stopped their lessons | The Daily Star
31 Children of the char are left out of alternative learning | The Daily Star
32 Education takes a back seat in char areas | The Daily Star
33 COVID-19 resulted in more child marriages. Why? – The Good Feed (brac.net); Snapshot: 30 ways BRAC supports girl children - The Good Feed
areas during the pandemic; nonetheless, school closures may have resulted in more female children in remote areas being married off, prompting them to drop out.

Poor to non-existent electrical and internet connectivity, near-complete lack of access to devices, a lack of alternative means of educational engagement through tutors or parents, and insufficient funds—all point to a high likelihood of complete disengagement with learning during school closures for these children. As a result, these children situated in the island and coastal areas, are likely to encounter significant learning gaps.

Volunteer efforts in these locations may have been constrained during the pandemic, either due to a lack of funds or the requirement to follow social distancing measures. Given that informal education was, in some circumstances, the primary source of education for most of the children in these areas, the status of these initiatives/programmes needs to be explored.

7.2 Street children’s education during school closures:

Due to COVID-19’s movement restrictions and other social distancing measures, numerous volunteer projects aimed at educating street children and other marginalised children have been impeded (for example, the Bidyanondo Foundation, Aloko shishu; Pother iskul) (Khan, 2020). Quarantine regulations (social distancing and mobility restrictions) hindered these organizations from conducting any educational programmes as well as hampered their ability to raise funds/donations and attract volunteers. Additionally, all informal/makeshift schools were closed during the pandemic, and given that many of these pupils lacked a stable home or permanent guardians, the closing of such volunteer/informal schools implies that these children have likely received no form of education during school closures (Khan, 2020). Furthermore, students in these communities have left Dhaka during the pandemic, making it difficult for volunteers (according to volunteer testimonials) to reach out and monitor their health or educational status (Khan, 2020). Children from these communities are especially likely to drop out of school, as a result of COVID-19 induced school closures.

7.3 Children with disabilities

The COVID-19 crisis highlighted systematic inequities in the inclusion and protection of children with disabilities (WB, 2021). Children with disabilities are less likely to attend and finish school, and as a result, are less likely to have basic literacy skills (WB, 2021). When schools were closed due to the pandemic, 29% of students with disabilities voiced anxiety about being excluded from learning, with a greater share of them being female (Bhattacharjee and Shiblee, 2021). The government initially tried remote lessons via television, followed by radio broadcasts; nevertheless, remote lessons were inaccessible to students with disabilities (Alamgir & Jahan, 2020). This was supported by survey findings, which indicated that 61% of children with disabilities reportedly lacked access to or did not participate in online classes during the initial days of school closures (BRAC, 2020). Additionally, schools and teachers were found to provide comparatively little help for the learning of children with disabilities during school closures.

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34 Covid resulted in learning loss for school students in char areas (tbsnews.net)
According to the Education Watch survey, at least 65% of teachers have students with disabilities, with secondary school teachers and urban teachers reporting higher proportions (CAMPE, 2020). However, these students received no academic support or guidance; rather, phone interactions during school closures, when they occurred, focused only on their well-being. Teacher neglect is clear in this circumstance, as a third of urban instructors and around 37% of secondary school teachers had made no contact with their students with disabilities. Children with disabilities will require additional support, depending on the severity and nature of their disability (WB, 2021)—and in one case, a Bangladeshi mother of a child with a visual disability learned Braille to continue teaching her child during school closures (Alamgir & Jahan, 2020). This may not be the case for others, as studies reveal that parents and families of children with disabilities are incapable of providing them with the necessary assistance (e.g., sign language interpretation or Braille material reading) (WB, 2021; Nuri et al., 2020).

This implies that school closures are likely to restrict their access to learning materials and disability-specific assistive devices, as well as preclude them from participating in any of the remote learning programmes (Chatterjee & Shibly, 2020). Due to a lack of adequate teacher and family support, as well as limited access to learning resources, these disabled learners may be excluded from the bulk of remote learning initiatives (Chatterjee & Shibly, 2020). Due to the increased risk of exclusion and the scarcity of educational alternatives, students with disabilities are more likely to drop out.

8. Summary of main findings

8.1 Mode of Learning Engagement

When schools closed, students engaged in studying and working, which they did using online materials, self-study, and with the help of private tutors or family members, and working was done to generate income and assist at home. Evidence suggests that during school closures, a significant portion of students' learning (at all grade levels and regions) was accomplished through their own efforts. Additionally, we discovered that children from urban informal settlements studied less than their regional peers, with adolescent females studying the least of all regional and student cohorts. Moreover, the majority of rural students and children from low socioeconomic backgrounds studied independently of adult supervision (teacher/family member).

8.2 Learning support: Parent/tutors/teachers

Rural students, students living in urban informal settlements, female students, and students from lower-income households received limited learning aid in the form of parental involvement and teacher/tutor supervision. The amount of teacher/learning assistance received by students varied according to their gender (females received significantly less support), socioeconomic status (students from impoverished households received significantly less support), residence (students from urban informal settlements and rural areas received significantly less teacher support), and health (students with disabilities received the least teacher support compared to all other cohorts).
8.3 Access to technology and online class participation

Students' access to technology, devices, and learning materials (both online and offline) was limited by their location (rural students and students from urban informal settlements, remote areas, and those without a stable residence), socioeconomic status (students from low-income households), gender (females), and health (students with disabilities), resulting in corresponding differences in their uptake/participation of online classes (females, students with disabilities, students from poor households, rural areas, urban informal settlements, and remote regions all participated in online classes at a lower rate than their respective contemporaries). Housework was also a hindrance to online learning, particularly for adolescent females, as female students reported more frequent interruptions during their study time. Families reportedly lowered the number of household tasks assigned to male offspring to allow them to concentrate on their studies, which suggests that school closures may have had a gendered effect on decisions about learning continuity at home.

8.4 Possible barriers to learning recovery

Financial constraints in student homes, student motivations to seek education, and institutional (schools/teachers) constraints were highlighted as three potential impediments to students' learning recovery. Due to financial constraints, students in urban informal settlements, and remote and rural locations, particularly females in these regions, were unable to participate in online classes and remain engaged in their studies. Student motivations were influenced by a household's financial capabilities and gender norms. Motivation to continue school appears to have been low during school closures, particularly among younger male students, adolescent female students, students with disabilities, and those living in remote and rural areas, impacting their educational aspirations and prospects. When schools resume, student motivations may dwindle even further, particularly among academically weaker students who had little opportunity to learn during the disruptions.

Financial constraints, a lack of incentive for female children to pursue/resume their education, and concerns about their safety--may all prompt parents to hasten their daughters’ marriages. Early marriage is most prevalent among girls from rural and remote areas, urban informal settlements, and low-income households. These students may likely drop out. Male children from urban informal settlements and low-income households who enter the labor force to support their families during school closures face a similar threat. Students with disabilities and students from remote regions are also at risk of dropping out.

9. Scoping future research areas

The following research gaps have been identified after stakeholder consultations:

1. Evidence of possible student dropouts has been gathered from surveys during school closures and, more recently, from data on in-person class attendance. Now that classes have resumed, a nationally representative survey outlining students’ current enrollment status, reasons for non-enrollment, attendance status, and reasons for non-attendance is required to understand the existing reality and effect of COVID-19 school closures. Further monitoring of their attendance and enrollment status is
required to identify students who are dropping out and their possible reasons for doing so. This could enable us to determine the long-term implications of extended school closures on students' academic choices and, likely, their labour market outcomes. Considering our evidence had also found that many of the private schools had shut down, a nationally representative study tracking students’ enrollment status would also allow us to determine the areas where schools have shut down completely, and how this has affected students in those regions.

**Important stakeholders:** CAMPE, BIGD

2. Comprehensive research collecting detailed information on marginalized student groups must be undertaken (students with disabilities and those living in remote areas), to ensure inclusive strategies for learning recovery.

**Important stakeholders:** FRIENDSHIP, BRAC, BIGD

3. Due to the absence of a nationally representative database on students' levels of learning in Bangladesh, the actual magnitude of learning loss experienced by students has been difficult to determine. It is critical to generate evidence in this area now that schools have reopened. We should evaluate students' present levels of competencies and foundational knowledge through standardized learning assessments which would then necessitate tracking when government and non-governmental organizations provide interventions to improve children's learning status. This is integral to understanding what may or may not work for Bangladeshi children and assisting policymakers in developing tailored strategies/solutions for children's learning recovery.

**Important stakeholders:** CAMPE, BIGD, DSHE, NCTB, NAPE

4. As evidenced by numerous surveys conducted during school closures, the digital divide has been a significant impediment to ensuring effective learning continuity. While government stakeholders recognize the importance of providing suitable infrastructure for online education, implementing such a strategy is likely to exclude children from rural areas, isolated regions, females, and low-income households from all school-mandated sessions (the online classes specifically). Disparities in access and uptake of online classes that existed during school closures will persist since some students will be able to attend all the scheduled classes while other student cohorts would be excluded. This would result in inequitable recovery of learning gaps, and once test assessments are reinstated, students without access to relevant digital equipment would likely score lower than their classmates, resulting in grade repetition and maybe complete demotivation from studies, resulting in dropouts. With that backdrop, it is essential to research the use of low-tech remedial education approaches to ensure student inclusion.

**Important stakeholders:** a2i, BIGD, CAMPE, DSHE, NCTB
References


BRAC. (2020). A rapid Assessment into to the Impact of COVID-19 on Education in Bangladesh. Survey Report


Appendix

Table A1: Survey evidence details regarding COVID-19 effects on Primary and Secondary school students

<table>
<thead>
<tr>
<th>Organisation/Authors/Study title</th>
<th>Sample size/respondent type/location of survey</th>
<th>Years conducted</th>
</tr>
</thead>
</table>
| ADB: “Impact of COVID-19 on Primary School Students in Disadvantaged Areas of Bangladesh” | • Before the pandemic, an in-person survey was conducted. In Aug 2020 (Round 1) and 2021 (Round 2), data was collected through phone interviews.  
• Covered 32 of Bangladesh’s 64 districts  
• 1,221 HHs reached in Round 1; 1,806 HHs reached in Round 2  
• Currently enrolled children aged 8–14 years, in Grades 3 to 5 | In-person survey: Dec 2019-Feb 2020  
Phone surveys: Aug 2020 Aug 2021 |
| EW, CAMPE: “Education and COVID-19 Response Bringing Schools and Learning Back on Track” | • Primary and secondary students of grades 4/5 and grades 8/9  
• The total respondent number was 2,952. Among them, 1,709 were students from primary and secondary school, 578 teachers, 576 parents, 48 Upazilla Education officers, 16 district-level education officials, and 25 NGO officials involved in education.  
• Covered 8 districts from eight divisions and 24 Upazilas (3 Upazilas from each district including three city corporations) and 72 clusters considering urban, semi-urban, and rural areas  
• Purposive sample design | Nov-Dec 2020 |
| GAGE & WB & IPA “Adolescent lives in Bangladesh: What are we learning from longitudinal evidence?” | • Mixed-methods survey  
• Covered Chittagong and Sylhet divisions only  
Pre-COVID-19 sample collection (In-person):  
• Quantitative baseline data: 2,220 adolescents attending grades 7 and 8 in 109 public (government) and semi-private (monthly pay order (MPO)) schools  
• Qualitative baseline data: 100 adolescents, parents, and teachers. The baseline is part of an ongoing impact evaluation, with programming supported by the World Bank.  
After COVID-19 sample collection (via phone):  
• Quantitative: 2,156 of the original baseline adolescents surveyed virtually  
• Qualitative: 39 adolescents engaged qualitatively | Quant. baseline: Feb-March 2020  
Qual. baseline: Aug-Sept 2020  
Phone survey: Quant (R1): May-June 2020  
R2: Feb-March 2021  
Qual: Aug-Sept 2020 |
| BIGD-PPRC R1: “COVID-19, Schooling, and | Phone surveys/Quantitative  
• R1: 5,193 children in 4,672 HHs across rural Bangladesh and urban informal settlements in six divisions. | R1: May 2020  
R2: March 2021 |
<table>
<thead>
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<th>Years conducted</th>
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<tbody>
<tr>
<td><em>Learning in Bangladesh</em> R2: “Trends in Learning Loss, Digital Inclusion, Mental Health, and Child Labour during COVID-19”</td>
<td>- R2: This was a part of a larger study tracking the poverty impact of COVID-19 in the rural areas and urban informal settlements of Bangladesh. A total of four rounds of data were collected where the module on children’s learning was added to the third round of the survey.</td>
<td></td>
</tr>
</tbody>
</table>
| BRAC (BEP): “A rapid assessment- Impact of COVID-19 on Education in Bangladesh” | Phone surveys/Quantitative  
- 16 districts (Nationally representative, 2 districts from each division)  
- Quantitative: 1,938 students studying in primary and secondary schools.  
- Qualitative: Key Informant Interviews (KII) with relevant stakeholders to feed into essential qualitative aspects | May 2020                    |
| **Makino, Shonchoy & Wahhaj**: “Early Effects of the COVID-19 Lockdown on Children in Rural Bangladesh” | Phone surveys/Quantitative  
Gaibandha  
3760 rural HHs | June-July 2020               |
| **Biswas et al. 2020** “TV-Based Learning in Bangladesh: Is it Reaching Students” | 2,181 Grade 9 students/their parents  
- Phone interviews on the phone.  
- Poverty-targeted stipend students  
- Dhaka and Mymensingh | May 18 and June 17, 2020      |
| **Raha et al. 2021** “Revisiting the impact of COVID-19 on adolescents in urban slums in Dhaka” | Qualitative  
- A total of thirty in-depth interviews with adolescents (20 female and ten male) – eight adolescents from the younger cohort (aged 12–15) and twenty-two adolescents from the older cohort (aged 16–19)  
- Three sites, including two peri-urban slum areas and one low-income settlement in Dhaka | 2020                        |
| **Ehsan and Jahan, 2021** “Analysing the impact of COVID-19 on the mothers of Bangladesh: hearing the unheard” | Qualitative, including content analysis  
- 223 respondents through a semi-structured questionnaire survey  
- Purposive random sampling | 2020                        |
<table>
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| Childcare in Urban Bangladesh.** | • The dataset is representative of slums and low-income areas of the Dhaka City Corporations (North and South) and the low-income areas of the Greater Dhaka Statistical Metropolitan Area. The slums include informal settlements listed in the Bangladesh Bureau of Statistics’ slum census of 2013/14.  
• 1,076 women ages 15–49 years reported being married, widowed, separated, or divorced.                                                                                                                                   |                                                                                                                                                                                                                                                                                                 |
| UNESCO, 2021c “When schools shut: Gendered impacts of COVID-19 school closures” | • Mixed methods study                                                                                                                                                                                                                                                                                                                                 | 1st round-April 2020-baseline  
2nd round-June 2020  
3rd round-September 2020                                                                                                                                                                                                                                                                |
|                                 | • A three-round longitudinal phone survey of 479 girls participating in the ongoing project *Keeping Girls in Schools to Reduce Child Marriage in Rural Bangladesh*.  
• Three rounds of a survey done- 1st round-479; 2nd round-453; 3rd round-448  
• Girls aged 12 to 19, lived in three districts:  
Chapainawabganj, Kushtia and Sherpur,  
Thirty-six in-depth interviews conducted with girls participating in the longitudinal study, as well as boys, parents, teachers, key informants and national education stakeholders. |                                                                                                                                                                                                                                                                                                 |

Figure A1: Stakeholder mapping matrix
A young boy holding up his text book in rural Bangladesh

PHOTO
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