Impact of Covid-19 on the secondary education system in Bangladesh

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Abstract: The secondary education system plays a pivotal role in strengthening the base of student’s knowledge that can help to achieve their target goal as well as build up the nation as a whole. The main objective of this research work is to assess the condition of the secondary education system during Covid-19 and provides sets of recommendations to improve the quality of education during covid-19 period.

This research has been conducted in the area of Noakhali District, Bangladesh. Methodology was based on primary data which was collected through a well-structured questionnaire administered on a sample size of 223 in which 150 students, 39 guardians and 34 of teachers from 04 nos. of secondary schools & Madrasha. Secondary data also has been used in this study which has been collected from magazines, journal, articles, and press releases of different national and international organizations.

Covid-19 has been the world's burning issue from the very beginning of being identification. In 2020, it has been spread all over the world. The Government of Bangladesh has taken different initiatives and actions to alleviate the infectious disease. In March 2020, the government of Bangladesh declared a general holiday for 66 days when all institutions were shut down but educational institutions were completely shut down for around 18 months but teachers tried to provide education through online platforms. In the perspective of Bangladesh, the online education system couldn’t manage all of the students due to technical problems, financial problems and unconsciousness about these issues. In Bangladesh, there were about 42 Million students out of school at that time.

Keywords: Secondary School, Covid -19, pandemic, education

I. Introduction

In late December 2019, a fatal disease caused by a corona virus that has never been detected in humans was discovered in a human body in Wuhan, China's Hubei province it was labeled a public health emergency of global concern at the end of January, and the World Health Organization classified it as a pandemic on March 11. COVID-19 Most countries were impacted by the, that, it spread across the country. Since March 18, 2020, all schools and educational institutions in Bangladesh have been closed due to the government's lockdown regulations (GoB, 2020). As a result, 42 million pupils were unable to attend school (Unicef, 2020) and 13 million secondary students (BANBEIS, 2018) were out of school during shut down. At the secondary level, 10 classes per day are televiewed on secondary general education, allocating 20 minutes for each class. Classes have also started on technical and Madrasha based education. (Ministry of Primary and Mass Education, Ministry of Education, 2020)

II. LITERATURE REVIEW

According to UNESCO (2020), the nationwide closure of schools, colleges, universities, and other educational institutions for COVID-19 has a negative impact on almost 60% of the global student population. The pandemic heavily hit the tertiary-level students’ social life as no meeting with friends and relatives (Cao et al., 2020), financial condition as losing of part-time jobs and emotional health as increasing frustration, anxiety and boredom (Brooks et al., 2020) and academic life as growing worried about future education and career (Cao et al., 2020)

The epidemic disrupted students' academic performance, causing substantial educational disruptions (Charles et al., 2020)
The regular flow of academic programs has been disrupted since the closure of tertiary-level educational institutions ceased face-to-face teaching-learning sessions (Jacob et al., 2020)
The delay in re-opening educational institutions can negatively affect their mental state and academic growth (Chandasiri, 2020)
The long-time home quarantine period caused disturbance and deterioration in students’ study habits and performance of work, which eventually resulted in the growth of stress and dysfunctional learning behaviors (Meo et al., 2020)

Major interruptions occurred in students’ learning, as many internal and public assessments were postponed or canceled (Burgess & Sievertsen, 2020)
The COVID-19 has had an impact on the global education sector, causing numerous institutes to close and forcing the majority of students to drop out. To combat the COVID-19 pandemic, most countries have temporarily closed their educational institutions. Nearly 40 million pupils in Bangladesh have been forced to drop out of school until the pandemic subsides. 2020 (Emon, Alif, and Islam)

COVID-19, a worldwide epidemic, has caused the largest breakdown of education systems in history, affecting 1.58 billion children and young learners in 200 countries, from pre-primary to higher education (United Nations, 2020).
The immediate terminations of classes in every school and other distinguished learning spaces have thrashed the learning processes of 94% of the world’s student population eventually affecting 99% of them in low and lower-middle-income countries (United Nations, 2020)

Another study of UNICEF (2020) shows that for at least 463 million children, whose schools were closed due to COVID-19, did not get proper access to remote learning. 31% of school children worldwide could not be reached through remote learning programs, mainly due to a lack of necessary household assets or policies pitched towards their needs (UNICEF, 2020)

III. OBJECTIVES OF THE STUDY

Proposed research will focus on following objectives-
1) To assess the impact of Covid-19 on secondary education in Bangladesh
2) To explore how Covid-19 has been affected in secondary education
3) To investigate the effectiveness of assignment and digital class during Covid-19 instead of physical class

IV. REACHES QUESTIONS

The researcher formulated the problem of the study by the following questions:
1) Was there any impact of COVID-19 on the secondary education system in Bangladesh?
2) Did the knowledge acquisition skills of students increase and the class assessment appropriate during COVID-19?
3) Were digital teaching and assignment appropriate as an alternative to physical education during Covid-19

V. RESEARCH METHODOLOGY

1. Collection of Data:
   a) Structured questionnaires were distributed to the three numbers of significant group i.e. student, teacher and guardian. 03 set of question for the three target group. For guardian, 50 numbers of questionnaire were distributed and 39 valid questionnaires were returned. For Teachers, 50 numbers of questionnaires were distributed and 34 valid questionnaires were returned and for Students, 160 numbers of questionnaires were distributed and 150 valid questionnaires were returned
   b) Analysis of different literature regarding impact of Covid-19 on education system
   c) To observe the education system during Covid-19 in Noakhali District
   d) To collect data from reference group, friends and acquaintances who are related with teaching and who are parents of students
   e) Personal interview of Teachers, Guardians and students

2. Sampling Unit:
The customer’s age, sex, race, location, income, region and educational background are included here.

3. Nature of Data: Primary data & secondary data

4. Type of questionnaire:
   Structure questionnaire with proper scaling

5. Type of questions: Liker 05 point scale

6. Data analysis instrument: Statistical software Statistical Package for the Social Sciences (SPSS) was used for analyzing the data. Descriptive statistics were used in this study.

VI. DATA ANALYSIS & RESULTS:

1. RESPONSE FROM GUARDIANS:

   50 numbers of questionnaires were distributed among different guardians of secondary school and 39 valid questionnaires were returned

<table>
<thead>
<tr>
<th>Respondent Sex</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Male</td>
<td>8</td>
<td>20.5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>31</td>
<td>79.5</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

   Descriptive Statistics

<table>
<thead>
<tr>
<th>Particulars</th>
<th>N</th>
<th>Statistic</th>
<th>Std. Error</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Child’s education and knowledge have improved during shutdown of School</td>
<td>39</td>
<td>4.8462</td>
<td>.05853</td>
<td>.36552</td>
</tr>
<tr>
<td>and Madrasha</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students have benefited from doing assignment without any help of others</td>
<td>39</td>
<td>4.2051</td>
<td>.19152</td>
<td>1.19603</td>
</tr>
<tr>
<td>except regular online class</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child spent more time wandering around without studying during shutdown</td>
<td>39</td>
<td>1.5385</td>
<td>.20069</td>
<td>1.25334</td>
</tr>
</tbody>
</table>

   **Note:** The results indicate that the education system during Covid-19 has improved in terms of knowledge acquisition for guardians, but there is a need for better strategies to address the challenges faced by students.
The interest in reading has decreased and the addiction to game, chat & phone have increased.

My Child’s learning, skills & acquiring knowledge have been delayed or ruined due to the closure.

Valid N (list wise)

Analysis of data: In this study, there are 39 Nos. of guardian have been participated to answer the question where Female participants were 79.50% and male participants were 20.50%. 50 Questionnaire have been distributed and 39 set of questionnaire have been returned with proper answering. Questionnaires have been set on Likart 5 point scale strongly agrees to strongly disagree. The mean & Std. Deviation are mention above. From the Table, it has been observed that average responses were negative about first two questions and positive about last 03 questions.

2. RESPONSE FROM TEACHERS:

50 numbers of questionnaires were distributed among different Teachers of secondary school and 34 valid questionnaires were returned.

Respondent Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>20</td>
<td>58.8</td>
<td>58.8</td>
<td>58.8</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>41.2</td>
<td>41.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Descriptive Statistics

<table>
<thead>
<tr>
<th>Particulars</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Statistic</th>
<th>Statistic</th>
<th>Std. Error</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students improvethemselves during shut down of school &amp; Madrasha</td>
<td>34</td>
<td>4.0000</td>
<td>.18881</td>
<td>1.0096</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students was acquiring knowledge through self- learning during shut down of school</td>
<td>34</td>
<td>3.8824</td>
<td>.21842</td>
<td>1.27362</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual assessment was made properly in 2021</td>
<td>34</td>
<td>3.7059</td>
<td>.20040</td>
<td>1.16851</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students felt frightened during prolonged shut down</td>
<td>34</td>
<td>1.3824</td>
<td>.09455</td>
<td>.55129</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students face educational losses during prolonged shut down</td>
<td>34</td>
<td>1.3235</td>
<td>.13163</td>
<td>.76755</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of data: In this study, there are 34 Nos. of guardian have been participated to answer the question where Female participants were 41.20% and male participants were 58.80%. 40 Questionnaire have been distributed and 34 set of valid questionnaire have been returned with proper answering. Questionnaires have been set on Likart 5 point scale strongly agrees to strongly disagree. The mean & Std. Deviation are mention above. From the Table, it has been observed that average responses were negative about first three questions and positive about last 02 questions.

3. RESPONSE FROM STUDENTS:

160 numbers of questionnaires were distributed among different students of secondary school and 150 valid questionnaires were returned.

Particulars

<table>
<thead>
<tr>
<th>Respondent Sex</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>34</td>
<td>22.0</td>
<td>22.0</td>
<td>22.0</td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
<td>22.0</td>
<td>22.0</td>
<td>22.0</td>
</tr>
<tr>
<td>Female</td>
<td>117</td>
<td>78.0</td>
<td>78.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Descriptive Statistics

<table>
<thead>
<tr>
<th>Particulars</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>My education &amp; Knowledge have been improved during shutdown of School/Madrasa</td>
<td>150</td>
<td>4.5667</td>
<td>.06445</td>
<td>.78933</td>
<td></td>
</tr>
<tr>
<td>Assignment &amp; Online Class were better than the physical class</td>
<td>150</td>
<td>4.4400</td>
<td>.07046</td>
<td>.86296</td>
<td></td>
</tr>
<tr>
<td>Long Shut down doesn’t improve my skill on my courses and now I am afraid to study again</td>
<td>150</td>
<td>1.7467</td>
<td>.09033</td>
<td>1.10634</td>
<td></td>
</tr>
<tr>
<td>I have done well in annual exam by studying at home</td>
<td>150</td>
<td>4.2067</td>
<td>.08989</td>
<td>1.10092</td>
<td></td>
</tr>
<tr>
<td>I face losses by wasting time in sports or otherwise without studying during prolong shut down</td>
<td>150</td>
<td>1.2800</td>
<td>.05992</td>
<td>.73384</td>
<td></td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of data: In this study, there are 150 Nos. of students have been participated to answer the question where Female participants were 78.00% and male participants were 22%. 160 Questionnaire have been distributed and 150 set of valid questionnaire have been returned with proper answering. Questionnaires have been set on Likart 5 point scale strongly agrees to strongly disagree. The mean & Std. Deviation are mention above. From the Table, it has been observed that average responses were negative about first two & four No. of questions and positive about three & five nos. of questions.

VII. CHALLENGES IN EDUCATION DURING COVID-19:

1. Digital Competence
Teachers’ lack of digital skills and knowledge was a major roadblock in the school system's adaptation to the COVID19 pandemic. Teachers' ability to use information and communications technology (ICT) has become critical in order to meet their new employment needs. Even before the pandemic, teachers reported a great need for training in using ICT for education.

2. Remote Education
The COVID19 epidemic necessitated a transition to remote or hybrid structures, posing various obstacles for pupils who had to acclimate to the educational changes quickly. The first issue was students' lack of digital technology abilities, which made it difficult for pupils without those skills to participate in online classes. Another issue was the lack of digital device accessibility.

3. Increase Work Load
The rapid change to alternative teaching techniques imposed extra demands on instructors for which they were not fully prepared in a short period of time. As a result, educators' workloads climbed significantly.

4. Assessment Problem
Another challenge is assessment problem as the students are not in person classroom. Assessment system was also through online platform which was newly added. As the previously no experience of distance learning and assessment system, so multiple problem was occurred and teachers tried to solve all these problems

VIII. IMPACT ON SECONDARY SCHOOL STUDENTS
1. Mental Health Condition:
Mental health and its importance during any lockdown pandemic are critical for maintaining environmental tranquility. Some Bangladeshi students were discovered to be wasting their time on Facebook, television, and online series rather than concentrating on their studies.

2. Family Income:
Many people have lost their jobs as a result of the COVID-19 outbreak, and their income has dropped. As a result, they are malnourished and unable to acquire immunity. On the other side, they are traumatized by the possibility of being infected with COVID-19. Many students are not able to pay internet bill for connecting the digital class.

3. Online Learning
The online class that was offered during COVID-19 in Bangladesh was poorly organized. It was created as a temporary solution to fill the perceived gap in education caused by the closure of educational institutions.

4. Auto Grade Promotion
Due to the pandemic’s current conditions, the government has had to make difficult decisions about secondary school education and the corresponding national board exams, acting on the advice and proposals of educational policymakers.

5. Child Abuse During Covid-19:
Several studies have found that during the lockdown, harassment and violence against women and children are prevalent.
IX. RECOMMENDATION
In connection with the study, the following suggestions are offered:

- Teachers will ensure the special care and do full cooperation with the students for attending the class and complete the class.
- Authority will take necessary steps for the students to concentrate on their lessons.
- To encourage and assist the parents to send their children to school.
- Students should try their best to get the complete lesson from the teacher by increasing the attention in the lesson.
- To implement the necessary steps to bring the backward students back to the mainstream.
- Well equipped digital platform is to be ensured by the authority.
- Guardians to be more careful about education of their children
- Develop inclusive contents and adjust the teaching process so that the students with disabilities, from ethnic minorities, students living in rural areas and madrasa students can be reached out equally effectively.
- To provide incentives to the teachers to take extra care of the students through taking more classes and recreational activities when the schools resume.
- To introduce a hotline number for the students so that the students can report any kind of complaints including abuse, food shortages, stipend, etc.: Ministry of Education should ensure punitive measures against the complaints.

X. LIMITATION OF THE STUDY
This study has some limitations as it was time-constrained. Moreover, this study was conducted in a particular area across a few institutions in Bangladesh. Besides, this study only covers secondary school & Madrasha. The students who were studying in preschools, English medium schools, Qawmi madrasas, colleges, and universities were not covered in this assessment.

XI. CONCLUSION:
Research has shown the negative impact of COVID-19 on the secondary education system in Bangladesh. During COVID-19, students were not able to acquire appropriate knowledge or enhance their skills properly, and their annual examination was not evaluated properly. Even the long-term gap among students was increasing their fear of Arabic, math, English, and science at a significant rate which is evident from the preliminary data. It has been clear that the students of secondary schools have faced many problems during covid-19 and they have faced huge academic losses. Some of the students left the school during Covid-19 for various reasons.

XII. Scope of Future Research
Areas The researchers suggest the following future studies:

- Apply this study on other group of students in order to generalize and validate the results of this study.
- This study concentrated only in Noakhali area and very small size of sample. Further study can be with more samples and with wide geographical areas.
- Due to time & budgetary constraint, huge data collection and using wide statistical testing were not possible. Further research will solve these issues and conclude exclusive report.

REFERENCES
[12] Prothom Alo (in Bengali). Children at home in depression. 2020. [Online]. Available:https://www.prothomalo.com/bangladesh/article/1665404/%E0%A6%AC%E0%A6%BF%E0%A6%B7%E0%A6%A3%E0%A7%8D%E0%A6%80%E0%A6%A8%E0%A7%9F-%E0%A6%95%E0%A6%AC%E0%A6%95%E0%A6%9F%E0%A6%8E%E0%A7%9F%E0%A6%95%E0%A6%BE%E0%A8%AD%E0%A7%9F Accessed: 1 August 2020