

The Unexplored Realities of the Students of Urban Slum during and after COVID-19: Impacts, Challenges and Resolutions

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A thesis submitted to the Department of English and Humanities in partial fulfillment of
the requirements for the degree of
Masters of Arts in English

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Declaration

It is hereby declared that

1. The thesis submitted is my original work while completing my degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material that has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

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Approval

The thesis titled “The Unexplored Realities of the Students of Urban Slum during and after COVID-19: Impacts, Challenges and Resolutions” submitted by Badhon Hilarash Rozario (21263009) of Fall has been accepted as satisfactory in partial fulfillment of the requirement for the degree of Masters in English on January 2025.

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Abstract

The COVID-19 pandemic triggered a global crisis that affected every facet of daily life, including education. The most profound challenges faced by students specifically slum students during the pandemic were often overlooked. Therefore, the study explored the slum-dwelling students in and after the pandemic to unveil the unidentified stories, experiences, and challenges of these poor and marginalized students alienated from mainstream students. A qualitative multiple case study was adopted through semi-structured interviews to identify their experiences and harsh realities during the pandemic. This research was conducted among twenty-five high school urban slum students in a tuition-free underprivileged school. The study's major findings through the qualitative thematic analysis of the interview transcripts show that many of the students left Dhaka for their ancestral home due to the economic crisis, the closure of all forms of classes, the inability to have technological devices, and the want of helpful personnel in their studies. Their challenges were psychological, physical, social, civic, and technological illiteracy. This piece of work fills the gap in exploring the realities of slum-dwelling students in and after the pandemic, seeking the probable steps they took to continue their studies, and providing some recommendations for the state and society to work out. The study also invites advanced research to discover the complexities and constraints of the slum students, particularly related to education.

Keywords: COVID-19; Urban Slum; Socio-Economic Challenges; Technology.

*To my beloved grandmother, whose gentle guidance and love
for words sparked my earliest passion for writing.*

Your wisdom and encouragement have been my foundation.

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List of Abbreviations

SIT Social Impact Theory

COVID-19 Coronavirus Disease of 2019

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The world has witnessed a severe situation during the pandemic caused by the infectious disease COVID-19. The outbreak of COVID-19 in Wuhan, China in late 2019 imprisoned people from all over the world. This incurable disease put millions of people to death, destroying normal life, and putting people in danger economically, psychologically, mentally, and eventually of life itself (Marinoni et al., 2020; Farnell, et al., 2021). Social distancing was implemented and precautions were taken to reduce the infection and the increasing death toll (Reimers, 2021). It has collapsed the education sector along with other sectors in the world leaving few chances to have alternative education immediately to meet the challenges of conventional education. Eventually, the situation pushed the education sector to distance education without proper pedagogy, objectives, or goals.

However, developed countries could shift conventional education to online with no exceptions (Dawadi et al., 2020). The availability of online technology, uninterrupted networks, and electricity, trained teacher-student, government endowment made it possible to go for online education. Online education involves online applications such as Zoom, Google Classroom, WhatsApp (Pratama et al., 2020), and some others to hold live video classes, discussions, quizzes, assignments, upload videos, worksheets, study materials, feedback, and progress reports. Distance or online education supplemented traditional education to some extent having difficulties in dealing with it.

Bangladesh, one of the developing countries, could not implement online education immediately after COVID-19's hard hit. Gradually private institutions and later some other

institutions with manifold limitations started to go for online education to mitigate the loss that already took place. Sadly, almost half of the institutions could not afford online classes (Brac.net 2020). With the limitation of online technology and the interrupted supply of internet and electricity, untrained teachers and students struggled to benefit from distance learning.

The mainstream education of Bangladesh struggled to meet the challenges of online education, the question arises about the slum-dwelling students who study under the sponsorship of NGOs or government grants. This study investigates this unexplored group of students' education, their perceptions, and how they have solved their academic difficulties during the pandemic to bring forth the true scenario they confronted and find out reasons and solutions for the future.

1.2 Statement of the Problem

The COVID-19 pandemic had a detrimental impact on all aspects of human life including the world's healthcare system, education, and economy. The strengthening of health facilities, the closure of educational institutions, offices, markets, restaurants, museums, movie theaters, many other sectors, the banning of social gatherings, the closing of borders, and travel restrictions are just a few of the unprecedented preventive measures that governments of numerous nations had stressed taking to slow down the spread of the disease infection, (UNESCO, 2020). These socially isolating policies had a significant impact on education, tourism, the economy, physical and mental well-being, and other fields.

The field of education was gravely affected by the sudden outbreak of COVID-19 at the end of 2019. The educational institutions had to opt for online classes due to the lockdown (Adedoyin & Soykan, 2020) to reduce the contamination. Though the students' assessment was limited during the pandemic, lessons were taught as much as it was possible. Since March 2022

the condition of the pandemic has decreased and the institutions gradually started their offline classes (Khan & Islam, 2021). But then a significant number of economically poor students could not continue their studies on the online platform. Many dropped out, got married, or got involved in a job.

However, some institutions provide evening education for poor slum-dwelling students who are unable to pay their fees or join the day school program because they work as day laborers (Sarkar et al., 2021). Dhaka city has more than 5000 slums where approximately four million people live (UNICEF, 2022). These slums do not have basic infrastructure and services for people. The students living in the slums must have faced the overburdened load of the Pandemic as well as daily challenges.

Numerous studies have been conducted on mainstream students' education in the context of the pandemic and post-pandemic situation worldwide. However, there are hardly any studies on slum-dwelling students, their challenges, or how they have overcome those challenges left by the pandemic in a developing country such as Bangladesh. The study explores this unexplored situation and investigates the impacts of COVID-19 and its challenges during the pandemic on the lives of slum students who study in the evening school of Arambagh, Dhaka.

1.3 Central Research Objective

The central research objective of this qualitative study is to investigate the impacts, the challenges, and the resolutions the slum students initiated during and after the COVID-19 pandemic. The study focuses on the urban slum students concentrating on the slum of Kamlapur, Dhaka.

1.4 Research Questions

The following research questions have been formulated to establish the objectives of the study:

R.Q. 1: How Bangladeshi Slum-Dwelling Students are affected by the Pandemic?

R.Q. 2: What challenges do they face in learning during the pandemic?

R.Q.3. How do they solve their problems?

1.5 Scope of the Study

The study explores how the students living in the slums respond to being in the face of the pandemic and the educational constraints they encountered during and after COVID-19. There have been numerous studies across the countries on education, especially on mainstream students. Though particular attention has been given to the mainstream students, the slum students have been neglected and rejected the proper attention and remedies for their impacts and challenges. However, there is almost no research on the students living in the slums in Bangladesh. The main objectives of the study are to learn the impacts, challenges, and the probable solution they sought.

The researcher's motivation to study the slum students was his close connection to the slum people near his residence, especially in the slum area of Kamlapur, his relationship with the students, and his concern for them. This is qualitative research because the researcher wants to understand the participants' subjective views and phenomena through interviews and observations.

1.6 Significance of the Study

To the best of the researcher's knowledge, there are very few studies regarding COVID-19 on the slum-dwelling students who comprise good demography, especially in Dhaka city. No researchers have taken up these marginalised and poor students to research and find out their conditions in and after the pandemic and their perceptions regarding the pandemic. The researcher has grown an interest in studying them and finding out their situation during and after the pandemic so that their realities during the pandemic might be known to others and other researchers might take up further research to bring forth these students in the limelight to solve problems that they faced and might face in the future in such situation. Even the policymakers of the state can take the necessary steps to encounter the challenges of the slum students in the future. Even the policymakers of the state can take the steps needed to develop policies to address the challenges of the slum students in the future.

1.7 Limitations of the Study

The researcher had certain limitations in doing this research, especially finding out the true slum-dwelling students and getting as authentic data as possible. However, the most affected students had dropped out of the school, and the researcher had to take interviews of the students who were a little better economically.

1.8 Definition of Key Term

COVID-19 Pandemic: In December 2019, an outbreak of pneumonia of unknown origin was reported in Wuhan, Hubei Province, China. Pneumonia cases were epidemiologically linked to the Huanan Seafood Wholesale Market. Inoculation of respiratory samples into human airway epithelial cells, Vero E6 and Huh7 cell lines led to the isolation of a novel respiratory virus whose genome analysis showed it to be a novel coronavirus related to SARS-CoV and therefore named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). SARS-CoV-2 is a betacoronavirus belonging to the subgenus Sarbecovirus. The global spread of SARS-CoV-2 and the thousands of deaths caused by coronavirus disease (COVID-19) led the World Health Organization to declare a pandemic on 12 March 2020 (Marco et al., 2020).

1.9 Chapter Summary

This chapter initially shows the background of the study to explore the impacts of the COVID-19 pandemic by other researchers and gradually narrows down its focus to Bangladeshi slum-dwelling students' challenges during the COVID-19 pandemic. Then the chapter follows the statement of the problem, research questions, and the scope of the study. After the scope of the study, the significance of the study, and the limitations of the study are narrated, and finally with the definitions of the key terms the chapter ends.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

2.1 Introduction

The unexpected hit of COVID-19 reversed the world's pace in every sector of life and life's activities. Education is one of the most hit-stricken sectors befallen with hopelessness to cover the damage caused by it. This literature chapter will discuss COVID-19, its impact on education, and how the world of education managed to shift education into alternative education to continue imparting knowledge to its students.

2.2 Part One: COVID-19 and Education: This part discusses the disease COVID-19, its outbreak and origin, and how it affected the whole world particularly the world of education.

2.2.1 The Outbreak of COVID-19

COVID-19, an infectious disease was first detected in Wuhan, China in December 2019 (Pietro et al., 2020). This disease is caused by severe acute respiratory syndrome coronavirus (SARS-CoV-2). As this disease spread so rapidly and killed so many people across the countries that WHO (World Health Organization) declared a Public Health Emergency of International Concern on 30 January 2020 (WHO, 2020). Following the deterioration of the health emergency and death results WHO characterized the outbreak as a pandemic on March 11, 2020. COVID-19 is easily transmitted from person to person in close contact with droplets and inhalation of the infected person eventually contaminating the air and transmitting the virus (Tadesse & Muluye, 2020). Normal movement was prohibited by imposing unprecedented lockdowns across the countries (Agasist & Soncin, 2020).

2.2.2 The Pandemic and Education

Education seems to be the worst affected sector along with other several sectors during the pandemic. As the growing number of infected people and countries was recorded, as per the announcement of WHO a health crisis, people's free movement was prohibited, and travel only in case of emergency (WHO, 2020). The abrupt deterioration caused several countries to go for an unprecedented lockdown (Ali, 2020). Consequently, conventional education falls headlong under the indefinite quarantine (Richter, 2020). According to UNESCO, approximately 11 billion school students which consist of 90% of 191 countries completely shut down, and some other countries partly shut, were affected by the quarantine, as they could not move to school (UNESCO, 2020).

2.2.3 The Impact on Mainstream Education

Undoubtedly, mainstream education could no longer impart lessons to its students in such a condition. The shutdown was a huge challenge for education in Saudi Arabia (Abumalloh et al., 2021). The US government has declared not to hold any gatherings of more than ten people (Chick et al., 2020). The Indonesian government took policies to close the educational intuitions to prevent infection (Abidah, 2020). The Chinese government banned face-to-face learning; even teaching was forbidden. (Ali, 2020).

As students were locked down at homes, they suffered greatly in not having the proper formal schooling at institutions. Teaching and learning were hindered at all levels. The study hours were reduced from 8 to 4 hours compared to regular in-class studies (Huber et al. 2020). This has resulted in a great loss in academic teaching and learning. Many countries choose not to assess students or assess only on a few subjects. France forbade high school and secondary

school assessments (Sonnemann, 2020), which minimized the self-learning motivation among the students to some extent.

2.2.4 The Challenges of Conventional Education

Conventional learning, otherwise known as traditional learning, is an age-old educational system that involves physical interactions between students and their teachers within the confines of a school and under the roof of a classroom. In conventional education, there is face-to-face live interaction between learners and instructors who are physically present in the same place (Columbus, 2021).

The sudden closure of the academic institution left it in huge confusion and disappointment. The funds for alternative learning were affected (Niranjan, 2020). The unprecedented closure of academic institutions contributed to the significant growth of mental and psychological complications among students, teachers, and parents, especially in developing countries (Tadesse, 2020). Boys from low-income families might be forced to support the family as well as girls too to work at home or workplaces or get off early marriage (Tiruneh, 2020). Peer effects are one of the severe challenges of conventional education during the pandemic regarding students' socio-emotional growth (Moroni et al. 2020). Students miss the chance to mingle, interact, cooperate, and share with classmates which improves students' positive externalities in face-to-face learning and activities in the classroom which assists the learner in growing his confidence, self-esteem, and a sense of identity (Pietro et al., 2020) became unrealistic during the lockdown.

2:3 Part Two: The Alternative Education During Pandemic

As conventional education was not possible anymore, the education sector altered for online education. The home-trapped education gradually shifted to online and later blended learning to mitigate the cost it paid during the pandemic. This part of the chapter discusses online education, technology integration, assessment and evaluation in the online platform, and blended learning during the time of COVID-19.

2.3.1 A Shift to Online Education

The sudden breakout of COVID-19 made the world motionless (Dubey & Pandey 2020), caused educational institutions to close (Rakhmanina, et al, 2020), and continued social distancing to stop the spread (Mahboob, 2021). Therefore, educational institutions opted to switch to online education. Online education is defined as a form of distance education that uses computers and the internet as the delivery mechanism, with at least 80% of the course content delivered online (Kentnor, 2015). Online Education is the use of network technologies for collaborative learning through different web-based platforms (Harasim, 2001). Online education helps to enhance student-centered learning, collaboration, formation, and assessment (Raja & Nagasubramani, 2018). Adedoyin et al. (2020) state that when a situation does not allow education to be imparted, the most privileged option is an online platform for uninterrupted education.

As there was no option to continue formal education at academic institutions, some countries gradually started their online-based education immediately after the lockdown, and others experienced an unstoppable situation afterward.

2.3.2 Technology Integration in Education

Online learning is directed to a new opportunity for world education in terms of using technology. Technology offers privileges to improve academic performance and it is not technology that is focused but it is education oriented which helps the students to improve (Eady & Lokyer, 2013). Technology can be classified into two; hardware and software. The hardware technology equipment consists of CPUs, laptops, webcams, microphones, internet networks, and even mobile phones. The software applications that facilitate live video conferencing and other learning facilities include Zoom, Google Meet, WhatsApp etcetera (Pratama, 2020). Technology integration in teaching helps to enhance student-centered learning, collaboration, formation, and assessment (Raja & Nagasubramani, 2018).

There are various platforms to fill the gap of traditional teaching in online platforms. zoom, Google Classroom, and Moodle are some of the popular platforms that help teachers-students to continue uninterrupted education.

Many educational institutions trained their teachers and students on how to use Zoom as a technological tool to use it properly. People are adopting different technologies to facilitate communication which leads to the widespread popularity of distance learning (Romoszowski & Mason, 2004 as cited in Ayoub, 2019 p.4). Zoom is a very effective learning tool for learning interactively, sharing files, breakout rooms for group discussion, and feedback, and motivating students (Ramadani & Xhaferi, 2020. P.146).

Google Classroom is a Google online application to facilitate teaching and learning. These applications facilitate communications between teachers and students, hold online classes, upload learning materials in PDF, YouTube videos or worksheets, giving assignments, feedback, and homework (Sudarsana, et al., 2019). Students' grades are uploaded as per the assessment to improve and encourage students to excel in their studies (Okmawati, 2020).

Using Google Classroom teachers and students can have discussions on assignments, homework, or any inquiry about studies for clarification of confusion (Vangie, 2020) Classes on Google Classroom can be held easily by inviting each student enrolled in the students to feature or even it can be done manually.

These two applications used during the pandemic were most popular along with some other applications because of their easy usefulness, most effective teaching, and learning process, and exchanging learning materials, and ideas or having conversations for learning purposes.

2.3.3 Assessment and Evaluation in Education

As education shifted from offline to online education, the education system had to opt for an online assessment policy or method which posed an opportunity as well as a problem for teachers and learners (Perwitasari, 2020). The online assessment method involved multiple choices, online oral or viva, open-book, task-home, reflections paper writing, assignments, quizzes, essay problems, or case-based or live exam writing methods (Jordan, 2020). This online assessment gave rise to satisfactions and dissatisfactions, opportunities and problems, issues of psychology, time management, and keeping focus or distraction. Maqableh et al. (2021) brought up some of the positive and negative effects of an online assessment. In terms of effectiveness and safety, the online assessment fulfilled the demands of the learners. The transportation time and cost were saved, reducing the danger of affection from COVID-19, the participation was higher than the traditional, well preparation by watching recorded class videos and reading text and course materials. Undoubtedly there were negative effects too which included heavy workload, distraction, technology, and internet problems. Perwitasari (2020) in her studies found that teachers had difficulties assessing the true learning and

knowledge of the learners. The learners were found more prone to plagiarize or copy that was undetectable due to a lack of plagiarism detectors (Conrad, 2021). Hussein et al., (2020) also confirm that the assessment load which comprises more quizzes, assignments, homework, and online exams than conventional learning created physical, psychological, and mental problems.

2.3.4 The Introduction of Blended Learning

As the whole of education has shifted to online platforms, the world of education has seen a revolution in the use of technology during the pandemic. The teachers and students were confronted with manifold difficulties having the only conventional classroom teaching-learning before and the only online platform during the covid 19. Therefore, blended learning was introduced to mitigate the tension, problems, and difficulties between online and conventional learning. Blended learning is the integration of online technology into real-time face-to-face learning (Finlay et. al., 2022). This also refers to hybrid learning where online (synchronous or asynchronous) and face-to-face learning take place interchangeably. Blended learning helps students to improve engagement with peers, self-regulated learning, critical thinking, student-teacher interaction, time flexibility, students' expectations, E-learning facilitation, and institutional objectives (Sankar et. al., 2022; Anthony, 2021; Ashraf, 2021). Integration of conventional and online learning has taken the education pedagogy and method to a great height in terms of collaboration, expectations, facilitation, and learning outcomes. Hence, blended learning is directed to a new instructional method of socialization and efficacy (Singh et. al., 2021)

2:4 Part Three: Pandemic and Bangladesh Context

Bangladesh was not left to be affected by the world crisis and affection of COVID 19. The pandemic's innumerable impacts on all sectors made life difficult, problematic, and challenging. Education was badly affected unable to subsidy the damage. This part discusses the situation of covid 19, education, and education particularly in the slum area of Bangladesh.

2.4.1 Education during the Pandemic

As the pandemic spread all over the world including Bangladesh, the government of Bangladesh had to declare an indefinite disclosure of academic institutions along with other sectors on 17 March 2020 (Khan & Islam, 2021). From this very moment, the academic institutions faced a collapse in imparting lessons face-to-face with hopelessness. However, some private institutions courageously took the initiative to begin classes on the online platform in April 2020 (Das, 2021) whereas most of the other institutions remained closed. Since there was no clear instruction from the part of government, gradually other institutions started opening their institutions online having no good strategy, pedagogy, or plan (Sarkar et. al., 2021). Moreover, with limited resources and unskilled teachers and students, education began to reduce the loss already befallen it with the expectation of any further damage. However, online platforms offer regular classes, quizzes, exams, assignments, and assessments as an alternative education to have uninterrupted education among students. Being one of the developing countries, it lacked to provide smooth internet connection, continuous electricity supply, and online technology (Ahmed, 2022). Having all kinds of difficulties in online teaching, this part remains still to be discovered in terms of effectiveness, success, and growth.

2.4.2 The Context of Slum-Dwelling Students

As the government had very little willingness to support all levels of education during the pandemic, there is little chance to believe that the slum-dwelling students had the opportunity to continue their studies like other private or capable institutions did and their students' participation in it. Undoubtedly, slum-dwelling students are not able to have online technologies at home that are costly and unavailable through which they can manage their studies. Surely this situation has greatly affected them and their studies which remained unexplored and still difficult to navigate. This study aspires to investigate the affected slum-dwelling students, their challenges, and how they solved their problems amidst the pandemic.

The above literature is concerned much with mainstream education but very little is known about the slum-dwelling students. This piece of research has been devoted to finding out the perceptions of the slum-dwelling students in and after the pandemic as this field is still unexplored, unlike other mainstream education in the country and of the world. This also included seeking the solutions they attempted to ease their problems. It helped the researcher to establish concrete perceptions and solutions they made to unveil the present situation and rethink their further situations to be overcome.

2.5 Conceptual Theoretical Framework

The researcher adopted the social impact theory used in the journal article of Abdulelah (2021) in the context of Saudi Arabia during the pandemic. The Social Impact Theory was proposed for the first time by Bibb Latane in 1981 in Psychology as cited in Jackson, 1987. There are social forces that impact individuals or the society at large when force influences or affects them. The source of the impacts is the purpose of this study, but the impacts followed by the source, COVID-19, and how these impacts developed into immediacy in the student's

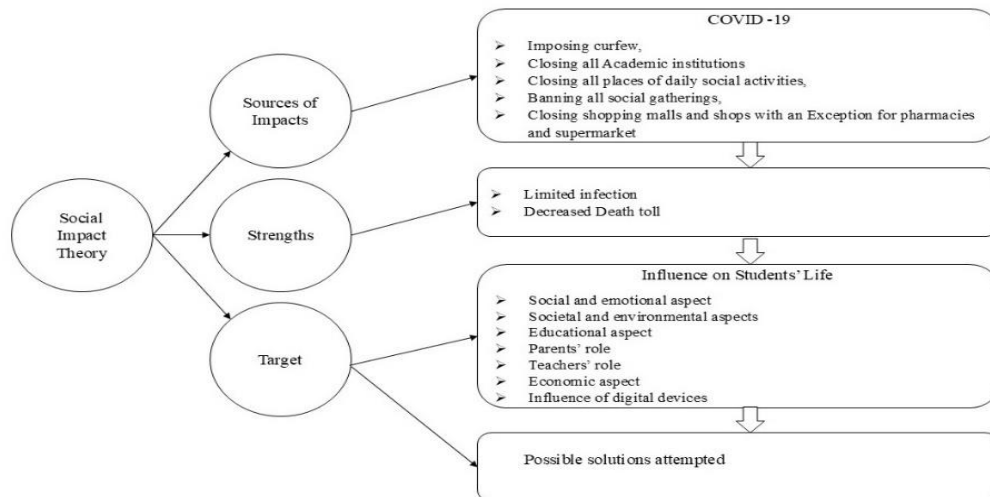
life, are the main target of the study. Abdulelah adopted the Social Impact Theory and implemented five stages of the framework which include Source of Impact, Strength, Number of Impact Sources, Immediacy, and Target. However, the researcher has adopted the framework and implemented three stages of the framework to guide the research.

The first stage is developed to announce the writing proposal through the literature review and gradually step towards establishing the gap and finding the answers. The first stage of the framework is the source of the impact or the main force in the social environment which is COVID-19. After the outbreak of COVID-19, consecutive curfews were imposed, academic institutions and social activities were closed, social gathering was banned, and shops and malls were prohibited to open too.

In the second stage of the framework, we find some of the strengths that helped people to prevent infection from the pandemic. The precautions and preventive measures were taken.

The third stage is associated with interview questions that answer research questions one, two, and three. As the target is drawn, it helps explain the impacts on the student's life in different aspects. This stage will answer the first and second research questions, specifically the impacts and challenges in and after the pandemic of slum-dwelling students. It elaborately finds out the possible solutions attempted by the participants.

This theoretical framework gradually guides the study in answering the research questions by establishing the announcement in the first stage and eventually leading to the target of developing the study's epistemology.



Social impact theory of Abdulrahman A. Alghamdi (2021)
<https://doi.org/10.1371/journal.pone.0250026>

2.6 Chapter Summary

Throughout the literature review, the research gap was gradually developed. In part one, the outbreak of covid 19 and its impacts on education, especially on formal education was discussed. The following part elaborated on online classes integrated with technology as a consequence of the shutdown due to the pandemic. This also included blended learning as part of the new learning pedagogy. Finally, the Bangladeshi context of the pandemic and its impacts were discussed and how Bangladeshi slum-dwelling students are unexplored was established to create the ground for research work.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The study intends to find out the true reality of the slum students during the pandemic. As the researcher has desired and expressed to explore the conditions of the vulnerable students of slums, this part of the study describes the systematic methodology of the study. The study's main objective is to find out the specific areas that affected them most and caused their life difficulties, which is the first research question of the study. The second research question explores the thoughts and perspectives of the parents of the students as to how they have experienced their children throughout the pandemic in their day-to-day lives and what changes they have noticed during that time. The third research question is about knowing the perspectives of teachers on the student's learning progress. As they went through these students, especially in terms of their study, progress, and other areas of life. This chapter includes philosophical assumptions, research design, data collection procedures, interview protocol, setting of the study, piloting, ethical considerations, trustworthiness, and credibility of this study.

3.2 The Qualitative Paradigm and its Philosophical Assumptions

Denzin and Lincoln (2011) consider philosophical assumptions (Ontology, epistemology, axiology, and methodology) to be key premises that are folded into interpretive frameworks used in qualitative research. Existing all the qualitative paradigms the researcher has chosen the Social Constructivist worldview where he wants to focus solely on the subjective views of the participants. Here his research depends on the subjective response to

the situation and how they perceive it. Therefore, he intends to interview the participants with open and close-ended interview questions. We see the constructivist worldview manifest in phenomenological studies, in which individuals describe their experiences (Moustakas, 1994). The views of the participants will be interpreted.

The Philosophical Assumptions of the Study

Research Paradigm	Philosophical Assumptions			
	Ontological	Epistemological	Axiological	Methodological
Social Constructivism	Several subjective views of the participants	Direct communication with the participants to get the subjective views of the students	The value-laden nature of the study, as well as the values and biases of the researcher, will be discussed	Qualitative multiple case study approach

According to Creswell (2007), ontological assumptions refer to the way reality is perceived by individual participants of a study. To explore the reality the researcher interviewed the participants and collected data from them which is the RQ 1. To strengthen the subjective views of the participants the researcher also attempted to observe them persistently by visiting their slum areas and conversing with surrounding people, relatives, and teachers of the school they study in which are the RQ 2 and RQ 3. The researcher was a participant in this study along with the participants to get the subjective knowledge and went through creating knowledge or epistemology of the study. In the axiological assumption, the researcher addressed his positionality and role in his work and accepted any biases. The qualitative multiple case study has been applied in this piece of research where each of the participants is considered as a case. An inductive method has been applied until data is collected.

3.3 Research Design

Qualitative research has been adopted for conducting the study as this approach studies the behavior of the participants, interaction in the interview, real-life story, or related to the real-life, experience of the interviewee (Denzin & Lincon, 2008). Moreover, the information does not stay in the same categories. In this way, the researcher gets the most useful information and non-biased results (Creswell, 2012). This approach helps the researcher to get data as much as possible by putting himself in the participants' shoes.

3.4 Multiple Case Study Approach

Case study simplifies complex situations and helps participants in discussing concrete subjects (O'Leary, 2017). A case study also improves analytical thinking, and communication, developing a tolerance for different views on the same subject. According to Yin (2014), a case study has two types which are- single case study design and multiple case study design. Multiple case studies are perfectly suitable for conducting the study for various factors. For instance, Zaborek (2009) explores the advantages of multiple case studies in qualitative research because it is useful for studying modern phenomena within students' real-life contexts, especially when the boundary between context and phenomenon is not obvious.

In addition to this, Creswell (2014) described a case study as a qualitative approach where a researcher explores real-life, contemporary cases through in-depth data collection from various sources of information and presents case descriptions and themes. Stake (1995) defines a case study as a "well-bounded, specific, complex (complicated), and functioning thing". Merriam (1998) throws her views in the same line, describing "the case as a thing, a single entity, a unit around which there are boundaries".

Creswell (2018) and Yin (2009) elaborated that sources of evidence for case studies include interviews, documentation, archival records, direct observations, participant observation, and physical artifacts. One of the most important sources of data in qualitative case study research is the interview.

Therefore, the researcher has chosen the multiple case study as it is more subjective, specific, real-life based, and well-bounded bringing out more authentic results from the collected data of participants. This multiple case study helped me to explore different and distinct realities of the participants and holistically study them and thematize them accordingly. As he visited the research field and participants, my observations, participants' interactions, views, and perspectives made the study more meaningful and gave meaning and significance to this research. The multiple case study helped him to generate themes from multiple views.

3.5 Positionality

The researcher had been working in a church for a couple of years and now he is living in a place where in both places he met with many slum students who are vulnerable, unable to pay school fees, early drop-outs, financially poor, and facing manifold problems. The pandemic has reversed the world to a great extent and education too. Governments across the world were worried about the academic studies of students, especially mainstream students. Observing these students during and after the pandemic made me think about their academic, financial, and psychological conditions. he met these students often and interacted with them. From this personal relationship, he came to know many stories about them, especially the ones underwent the pandemic. Therefore, he directly came to know these students and learned their real-life stories, pandemic impacts, challenges, and the solutions they attempted in their continuous study. His involvement with them brought forth authentic experiences in this study.

The study helped him to unfold the realities they were undergoing and will help the readers and other researchers to think about these marginalized people and opt for further research which might help the authorities in the future to take necessary steps about these students who are never prioritized, given importance and under the limelight.

The pronoun ‘researcher’ has been used throughout this research paper for his convenience to convey the findings more realistically and authentically. Undoubtedly, his biases and personal views are freed from this study. The pronoun ‘researcher’ has been used only to show his attempt to explore the participants and make it more comprehensive and empirical.

3.6 Setting

As the research is intended to study the slum students of Dhaka, the researcher has chosen the Kamalapur and Fakirapul slum area as he lives nearby. It was easy for him to have participants as the school they study in is very close to his residence and he has good contact with the administration of the school. He chose students from one of the high schools he knows who were able to participate and express properly their views and perspectives in this study accordingly.

Participants Profile

No	Name	Gender	Age	Class	Area of Residence
01	Samiya	Female	14	Six	Kamlapur
02	Hafsa	Female	17	Seven	Kamlapur
03	Belal	Male	13	Six	Kamlapur
04	Abir	Male	15	Seven	Fakirapul
05	Sara	Female	17	Eight	Fakirapul
06	Sajal	Male	15	Six	Kamlapur
07	Nadia	Female	15	Six	Fakirapul
08	Sadia	Female	19	Eight	Kamlapur
09	Ratan	Male	14	Six	Kamlapur
10	Sonia	Female	15	Six	Fakirapul
11	Hasan	Male	17	Seven	Fakirapul
12	Dilip	Male	18	Seven	Kamlapur

3.7 Selecting the Participants

Purposeful sampling strategies are used in qualitative research along with the knowledge of the field of the research in terms of research goals (Sakyi, 2020). In selecting the participants, the researcher preferred the purposeful homogenous sampling as the focused group of slum-dwellers, matches the best to it. The homogenous sampling intends for a homogenous solution that has the same traits or properties. Sampling is used when the study aims at a particular group or feature (Thomas, 2022). Stratton (2019) states that participants are selected to show similar patterns or characteristics among the same group relative to the

phenomenon or the study. The purposeful homogenous sampling, the understanding of the phenomenon is maximized. Here the cases are not selected randomly but purposefully and with the right intention (Mohammadi et al., 2019).

As homogenous sampling offers freedom in approaching participants to learn the same trait or phenomenon in society, he took this opportunity to apply the sampling among the slum-dwelling students of the particular group to know their impacts, challenges, and possible solutions they attempted. He aimed to select the participants who are studying in higher school (Bangla Medium) and have undergone the pandemic impacts. The high-school students who are expressive rather than primary school have been selected to get the authentic data as much as possible.

Participation in this study, the participants were asked for their consent in person. No force is applied to collect the authentically and validly. The semi-structured interview was applied to facilitate answering the questions aligned with the research questions.

The criteria for selecting the participants:

1. participants are slum-dwellers
2. they study at the secondary level of Bangladeshi school
3. they are willing to participate in this study
4. they are affected by the pandemic

3.8 Data Collection Procedures

On reading relevant literature and my study context, he has chosen the social constructivist theory to unveil the hidden realities of the slum students that through this study society may construct and reconstruct what had been lost and affected by the pandemic. The main objective of this study is to find out unexplored and untold truths and realities experienced by the participants so that the other researchers and the authorities may take better initiative now and in the future. This theory helps a researcher not to theorize the views of the participants but rather inductively create a theory from manifold subjective opinions of the participants and interpret them (Mertens, 2009). The participants' subjective opinions are collected from their real-life experiences by being with them, visiting the research field, and observing the lives of the participants and their social settings. As they are parts of society, their parents and teachers are also considered as part of the study to construct meanings broadly to maximize authenticity

There are a variety of methods of data collection in qualitative research including observations, textual or visual analysis (from books or videos), and interviews (individual or group) (Barrett & Twycross, 2018). Gillham (2000), also states that there are many sources of evidence in multiple case study research that help the researcher to collect the data such as documents, interviews, recordings, observations, and physical artifacts.

3.9 Semi-Structured Interview

According to Kajornboon (2004), the advantage of the semi-structured interview is it allows informants the freedom to express their views using their terms. It makes the interviewer come closer to the interviewee and learn more about the participants. Cohen and Crabtree (2006) argue that semi-structured interviews can provide the researcher a reliable, comparable qualitative data. Because the interviewer is not limited to his question but rather facilitates

changing of questions according to the situation. The interviewer can ask different types of open-ended and personal questions rather than a general questionnaire (Houlis, 2019).

3.10 Interview Protocol

Interview protocol helps a researcher to constitute interview questions aligning with research questions to reach the goals and objectives of the study. The researcher has taken the interview protocol of Yeong (2018) to design the interview questions.

There are four phases of the interview protocol:

1. Aligning interview questions with research questions
2. Constructing an inquiry based on a conversation
3. receiving feedback on interview protocol
4. piloting the interview questions

First Phase: The first phase of the interview protocol helps the researcher to align the interview questions with research questions so that the interview questions are not alienated from what the study intends. It was made sure that all the interview questions answered the research questions and expel not a single research question.

Second Phase: It is associated with open-ended questions to help the participants enter into the depth of the research objectives. The interview questions are formulated in such a way that they may not overlap with research questions. The questions were kept simple and more approachable so that the minor students could answer them easily and not be embarrassed.

Third Phase: After the final formulation of the interview questions, I approached an expert for suggestions and corrections who knew well about approaches that should be made

to slum students. With her valuable and formative suggestions and corrections, the interview questions were finalized.

Fourth Phase: After the third Phase of the framework, piloting was done to see if the interview questions needed to be changed or not or if there was any gap in the questions. This framework helped me a lot to formulate interview questions step by step and make them more authentic and credible.

3.11 Piloting the Interviews

After preparing the interview questions, the questions were corrected according to the suggestions of an expert. Then, the researcher piloted the questions with an interviewee. This has been done to find out any gaps in the questions or needed corrections. The researchers make pilot studies to evaluate the adequacy of their planned methods and procedures (Polit & Beck, 2017). The piloting helped him to redesign the research questions and take interviews with other participants more accurately and effectively.

3.12 Data Analysis Framework

The data analysis framework helps any researcher to get authentic data from all the data collected through its gradual and consistent process. The researcher has taken Labra et al.'s (2019) thematic data analysis framework to analyze the data. Six stages help to generalize the codes, draw themes, and eventually the results.

The six Phases are:

1. Familiarization with collected data: The data collected from the participants were familiarized by going through reading several times to understand better the views and perceptions of the participants. Once the process was over the next step was taken for analysis.
2. Generating initial codes: After familiarization was over, he generated initial codes from the data collected. The coding process involved mainly the participants' quotations and the frequency of views.
3. Searching for themes: Themes were generated from the coding by reviewing several times the views and words of the participants. The most common views from the interview were taken to generate themes to bring forth ideas and realities of the participants.
4. Reviewing themes: The themes were reviewed several times to see whether themes were generated accordingly or not. No themes were taken that were not received from the participants.
5. defining and naming themes: The themes that were generated were defined and named to discuss them comprehensively and exclusively.
6. Presenting and discussing results: The results and discussion have been presented by following all the steps to establish trustworthiness and credibility.

3.13 Ethical Consideration

To involve participants in this study, the researcher approached them at first and talked about what he was going to do. Ethical consideration was taken by the consent form (Appendix A) and their willingness to participate in this study. They were given a brief introduction before going for interviews and without hesitation, confusion, or force, joined me in helping to speak about their struggles and challenges during the pandemic.

3.14 Trustworthy and Credibility of the Study

A qualitative researcher's focus is to concentrate on trustworthiness and credibility issues such as credibility, dependability, transferability, and confirmability (Sinkovics, Penz & Ghauri, 2008). To make any study trustworthy, researchers should establish protocols and procedures for a study that is considered to be worthy of consideration by readers (Amankwaa, 2016). The trustworthiness depends on the quality of the data, the authentic data collected and presented, and its interpretation.

In terms of establishing credibility, the researcher involved himself with the participants for a long period, visiting them regularly, and observing them to establish trust between the researcher and the participants. The researcher inquired about various aspects of the slum-dwelling students' lives by conversing with several community people and making a relationship with them. As the researcher desired to have in-depth knowledge of his inquiries, he persistently observed the participants as it facilitated him to have data more contextual, relevant to the issues related to the effects of the pandemic, and focusing in detail (Lincoln & Guba, 1985).

Triangulation is to have a greater understanding of an investigation by using multiple data sources (Merriam, 1995). It urges that a single method cannot explain a phenomenon adequately. Therefore, the researcher adopted triangulation of data sources to establish credibility by collecting data from prolonged observation, and interviews of the students, parents, and teachers. Inter-rater reliability (Appendix H) also has been employed as analyst triangulation.

The researcher coded (Appendix E) the interviews of the students and generated themes (Appendix F) that were seen by an expert professor who has been teaching at a renowned university for more than fifteen years. Then she rated (Appendix G) them and her agreement is shown in percentage. The interviews taken from the participants were coded and themes were generated.

As qualitative research demands trustworthiness and credibility through a process of credibility, Transferability, Dependability, and Conformability, the researcher adopted all of them to establish them in his research work.

3. 15 Chapter Summary

Throughout this chapter, the methodology has been presented step by step. The chapter starts with the qualitative paradigm and its Philosophical assumptions where the researcher established the research procedures according to the research questions. Then gradually research design, positionality, setting, interview protocol, data analysis framework, ethical consideration, trustworthiness, and credibility are discussed to fulfill the methodological procedures.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The results found from the data collected from each participant have been discussed in this chapter according to the research questions that led this study. The results answer the research questions in three sections; effects, challenges, and possible solutions.

01. How were Bangladeshi Slum-Dwelling Students affected by the Pandemic?
02. What challenges did they face in learning during the pandemic?
03. How did they solve their problems?

4.2 Section One: The Effects of the pandemic on slum students

The slum-dwelling students like all other students of mainstream education had been affected by the pandemic. However, these students' situations differed from those of mainstream students. As they study for free in school due to their economic and real-life problems, their pandemic effects also differed, placing them in grave challenges. In this section, the researcher discusses the effects of the pandemic on students using various pseudonyms.

4.2.1 Left Dhaka-Slum for the ancestral home

The pandemic affected most parts of the world and triggered a global crisis, not only in terms of education rather in every sphere of life. Bangladesh, a developing country that faces generally constant crises in different aspects of life, was also gravely affected by the pandemic.

As the pandemic struck the country, the Health Ministry called for an indefinite curfew across the country to save lives and to reduce the infection. Many people who are self-reliant and have small and medium enterprises were at stake in that odd and unfavorable situation of the country. The daily laborers, cobblers, vendors, and street businessmen found it very tough to manage their lives and found themselves nowhere. They lost their fortune in the face of the pandemic and had to make strong decisions for themselves and their families. As everything was under the Government's closure, they could not earn money from their work or enterprises. Unfortunately, many lost their jobs, especially the low-income generation, and became helpless and hopeless. It was difficult for many families to keep them settled in Dhaka bearing the high cost of living. Therefore, many families were forced to leave Dhaka slums to resettle in the villages. It was the same situation for John who lived in Fokirapool had to leave the city slum during the pandemic. He expressed that

During the pandemic, we could not pay the cost of housing and purchase other necessary living commodities. The food price was out of control and there was limited money at hand to bear the cost. In addition, my father lost his small enterprise selling fruits on the roadside. Therefore, we had to leave for home in the village (DU JOH 12).

The Business Standard, a popular newspaper reported that 50,000 people of low-income bracket left the capital for their ancestral homes at the end of June of 2020 as the pandemic robbed their jobs. They could not finance their livelihood and maintain daily costs in the city. They had to pack their belongings instead of pushing them to the edge of starvation. It is not only the fate of the people who lost their jobs, however, people who received pay cuts, had to send their families to their ancestral homes. The report brought forth the survey conducted by BRAC, Data Sense, and Unnayan Shamannay, the pandemic set 10.22 crore people at financial and economic risk.

Newman et al. (2023), in their research about human resources, studied how pandemic forced the organisations to rethink and reevaluate their rules, regulations, and policies for employees in the face of economic crises.

The COVID-19 coronavirus triggered multifaceted crises across the globe that affected various aspects of society; public health, social, economic, and political realms. It created a new vulnerable and disproportionate diaspora group which ultimately resulted unemployment of 2 billion people, as researched by Aditya and Amri (2023).

The economic crisis across the world and locally in Bangladesh pushed informal workers into a grave financial emergency unable to come out of it and left behind the loving city. As the families moved to the villages, the smooth continuation of learning for the children was hampered. Eventually, the pandemic's effects assisted in the discontinuation of studies of slum-dwelling students.

4.2.2 Limited Access to Technology

The COVID-19 pandemic led to a sudden and extensive shift from traditional to remote learning. The requirement for remote learning tools such as smartphones, laptops, or desktops appeared almost inaccessible for most students. The inability to access technology left many students behind in participating in regular lessons and learning. The dependency and demand for technological tools and an uninterrupted internet connection among slum-dwelling students seemed unrealistic and impractical. As slum-dwelling students live under the poverty line having limited resources for basic needs, they rarely could purchase learning communication devices. Most families had only a phone or could not afford a smartphone. Sunil stated that,

We have only one smartphone at home owned by my father. He goes to work during the day and comes at night. When he comes home, I access my father's mobile at late night which is not a suitable time to study. I had no other options and possibilities to continue my studies (DU SUN 18).

The Pew Research Centre (2021) revealed that many families found sharing limited devices among children hard. The low-income households did not have a computer and even lacked high-speed internet access for mobile use. This contrast ultimately hampered learning significantly and created a gap between studies and students. The digital divide caused academic drawbacks and disparities and primarily affected the students' interest in learning.

Suronjeeta lives in Dilkusha and does not own a mobile. However, she had a strong desire to learn her lessons by browsing the internet. She confessed that,

As the school was closed during the pandemic I resided at one of my aunt's houses because there was no device at my home and no one to help me in my studies. I could use my aunt's smartphone at her house to watch YouTube videos uploaded for educational purposes (DU SUR 20).

Gayle et al. (2023) explained the situation in America about the students of private institutions who experienced disparities and disadvantages in accessing technology during the pandemic. Although the government funded the government-owned institutions, however, the private institutions did not receive any funds and had to find ways to process the online activities. In addition, Abdullah and Kausar (2022) added that most developing countries are deficient in technology. It seemed difficult to initiate the use of technology as there are limited resources, undersupplies of digital technologies, and access to it. The inability to afford technology and access to it for learning affected the students' grading too which frustrated them eventually.

4.2.3 Virtual Classes affecting regularity

As the COVID-19 outbreak was acknowledged, it disrupted the normal lives of the children needing health emergencies and provisions. The worst-hit countries immediately became cautious to mitigate the infection by closing the academic institutions, especially the primary schools. More than 190 countries, gradually, temporarily closed schools for their students by April 2020 (Reuge et al. 2021). As the reports of infection and death toll were outnumbered and no reason to reopen the schools, the pandemic forced the global education system to shift from traditional in-person learning to online hybrid classes resulting in the disruption of regular classes and learning. This disruption is demonstrated in changing class schedules, school closures, and uneven access to technologies. It posed the students with significant challenges in academic performance, mental health, and long-term outcomes. Most educational institutions were closed with a short or without notice. All the students participating in this research acknowledged that they could not have any classes during the pandemic; neither online nor offline. There were submissions and receptions of assignments once a week just to assess their learning at home. Priyanka said,

We did not have any online or in-person classes. Once a week, every Friday, we used to go to school to submit and receive assignments. Since there were no classes, we could not learn, especially the subjects of mathematics and English. We were not even assessed properly. That is why I was not serious about learning anything (DU PRI 26).

Due to the abruptness of classes and assessments, the continuation of studies fell apart and disintegrated. Mathematics and English are the two subjects that seemed to be the most difficult in the context of Bangladesh. The students who could not afford to have any tutors and even could not attend regular classes lacked comprehension of the subjects. The pandemic affected gravely in their studies.

Rasmitadila et al. (2023) found a similar situation in Indonesia in their research during the pandemic. They explored the relationship between the subject matter (mathematics, language, science) and learning outcomes among the students through the teachers' opinions. Teachers were not able to explain well about the subject matters even having online classes. There has been a sign of loss in understanding in being imparted proper knowledge of subject matter among the students. This has been found among most of the students related to the study.

Though the school addressed the issue by arranging meetings with students once a week, the result was not effective or fruitful in terms of learning. Students were neither taught nor could ask for help from their peers for the lessons they wanted to learn. There appeared a gap that no one to bridge and help the students learn.

Rasmitadila et al. (2023) studied in the context of Indonesia that the closure of the schools gravely affected the students' affective and cognitive aspects of learning. Students' speed of understanding of the subject matter, learning progress, and knowledge reduced to a certain degree in the cognitive aspect as well as appreciation, feelings, interests, and attitudes in the affective aspect. Students were found with less understanding, forgot the lessons, and were less interactive compared to the pre-pandemic situation. The study highlighted the importance of in-person classes which is more beneficiary than any other platform or home-based study.

Priyanka, a student of class seven revealed a devastating scenario in her school. She revealed that,

There were 25 students in our class. However, after the pandemic 7 of our classmates dropped out the school. I had a very good relationship with two of them. They no longer reside in Dhaka and went to their ancestral home and I have no communication with them. I feel very sad about their absence (DU PRI 28).

The discontinuation of classes or closure of the schools brought devastating consequences to the poor students whose family income is very low and the students who support themselves for living. Okagbue et al. (2023) researched in the context of Nigeria that the closure of schools and discontinuation of learning due to the pandemic as well as insufficient supplies of technologies resulted in an increasing number of school drops. The study also revealed that there was little initiative on the part of the government to teach digital literacy to cope with the lessons.

4.2.4 Lack of Assessment

The pandemic situation, the closure of schools, and the disruptions of classes impacted severely the continuous and summative assessment of students. The regular quizzes, assignments, homework, and tests were not properly carried out which ultimately not only impacted grading but also learning. The irregularity of assessment hindered providing the targeted results and progress of the students and institutions. Before the pandemic situation, teachers could assess students in person through several assessment tools. However, this appeared troublesome and not viable even in remote learning platforms. Students attending remote learning and not attending both were affected in terms of the traditional assessment method. Due to no assessment, the slum students were not serious about their studies and could not learn as they could during conventional classes. Salman said that,

We did not have any examinations due to the closure of the school. We used to come to the school every Friday to collect assignments and submit the given assignments. We were evaluated based only on our assignments. However, I used to complete my assignments learning from the YouTube tutorials. So, real learning did not occur and I could learn much (DU SAL 26).

In the pandemic situation, students' regular studies and learning were gravely hindered and affected. They were deprived of regular classes and lessons and did not have any direct contact with any teachers. Tashtoush et al. (2023) in their research revealed that students from low-income backgrounds, single parents, immigrants, refugees, minorities, and those with special needs were deprived of in-person learning and assessment. They frequently used the term 'learning loss' to bring forth the harsh reality of the students resulting from the pandemic. These losses are manifested in periods and the long-term drawbacks in learning and students' lives. Sato et al. (2023) Studied that students who were studying sciences encountered unparalleled experiences in accessing laboratory learning, especially biomedical science students. They could not experience medical equipment and other practical classes which are extremely difficult to replace in a virtual setting. As there was a learning and real-world experience loss, the students also were not assessed or provided any feedback on their mastery of the skills. Priyanka shared that

We used to write first-term, second-term, and final examinations. However, there were no such examinations and results in compliance with exams. There were no classes and no examinations. That is why there was no pressure of studies at all and we also did not take our studies seriously. We just passed based on our assignments and now we are struggling to understand our lessons in the new class (DU PRI 30).

The disruptions to formative and summative assessments contributed to an incomplete scenario of students' progress, making it difficult to continue their studies in the next academic level as well as creating tough situations for the teachers to continue teaching efficiently. As these students move forward, they continue to experience the same situation and fall behind in their learning experience and developing skills.

4.3 Challenges faced by slum students

4.3.1 Psychological Challenges

COVID-19 significantly impacted not only the academic life of the students but challenged them psychologically. Most public institutions, except some, were closed during the pandemic. The abrupt shift to online education, social isolation, and the uncertainty surrounding the pandemic had profound psychological effects on people of all ages. People were locked down inside homes and not allowed to go out without any grave reasons. consequently, students could not go out and were imprisoned at home. This continuous imprisoned life made these young people psychologically sick. They used to feel, bored, angry, monotonous, and ill. They used to fear what would happen to their life if affected. Salman admitted that,

I used to feel bored a lot at home during the pandemic. I even feared to go out or mingle with anyone for fear of infection. I did not have any television at my home. There was no opportunity to spend time alone. I used to feel angry too regarding the pandemic. Why does this kind of disease occur (DU SAL 44)?

Psychological reactions given during the pandemic include anxiety, fear, disappointment, loneliness, anger, boredom, depression, and stress, (Taylor, 2021). Mental health challenges come from various sources, including parental pressures, financial strains, and family losses (Bauerle et al., 2020) which leads students to face mental health problems.

They were sick more mentally than physically. As they are young, they feel to go out and play with friends and get refreshed. But it was not possible for unprecedented lock-down. Sunil in tune with Salman reiterated that,

We have a television at home. I preferred to watch sports channels rather than watching cartoons. But my younger sister liked watching cartoons very much. We used to fight each other and my mom used to scold me for fighting as I was the elder. This made me very unhappy mentally at home (DU SAL 46).

As mental health emergencies have many psychological effects, the levels of anxiety, depression, and other mental health problems have been worryingly rising since the declaration of COVID-19 as a pandemic (Ansari et al., 2020). These young students faced a lot of difficulties during the pandemic including Mental health problems. They were stressed and unhappy at home relating their personal life, to studies and others which posed a great challenge for them to overcome.

4.3.2 Physical Challenges

The students, in the face of school closure and social restrictions, had to remain locked in their homes. They were debarred from mixing with people to keep them safe from infection. However, the situation contributed very negatively to their health issue. It is noted outlining the impact of COVID-19 on students' mental health and physical health. They felt weakness, eye problems, leg pain, back pain from prolonged sleeping and lying down in bed, lack of appetite, problems in digestion, irregular sleep hours, headache, fatigue, and so on. Most of the participants identified these physical problems as reasons for ignoring physical exercise, daily sports, and walking. John said:

I could not go out play with my friends and even go to school due to school closure. I was at home all the time during the pandemic restrictions. I used to feel leg and back pain and eye pain watching TV for a prolonged time. I rarely felt very hungry, lost my appetite, and had digestion problems too. I used to feel sick and bored staying at home for this period (DU JOH 40).

Physical health concerns excessive daytime sleepiness disrupted nocturnal sleep patterns, decreased appetite, sedentary behavior, weight gain or obesity, as well as feelings of fatigue, dizziness, and listlessness (Toquero (2020)). The physical complications created a severe situation in the lives of the slum students. They felt sick at home even if they were not sick. This physical complication kept them away from their studies too.

4.3.3 Unavailability and Illiteracy of Technology

The pandemic brought about an immense shift to remote learning across the countries, but this transition posed significant challenges, particularly in developing countries like Bangladesh. While technological advancements have made online education increasingly accessible in many parts of the world, students in developing countries have faced a range of barriers, including limited access to technology and insufficient digital literacy. The slum students were severely victims of this shift. Poverty has made these slum students poor in knowledge too in technology. As they can not purchase any device, they remain illiterate in technological knowledge. There were many study materials uploaded on YouTube and other technological tools in online education during the pandemic. However, a large group of poor students could get access due to technological ignorance. John said,

One of my friends informed me that there were learning materials on YouTube. I did not have a smartphone at my home. Even I did not know how to use a smartphone. Therefore, I could not learn by browsing YouTube on mobile (DU JOH 52).

Hulme et. al. (2023) studied in Asia and Africa that many developing countries experience the digital divide as well as the rural and urban divide. Disadvantaged communities in low and medium countries have limited access to technology and are illiterate in terms of digital literacy. Pattnaik et al. (2023) presented the result of Human Rights Watch that most

of the students of 60 countries in Asia and Africa did not receive the opportunity, tools, or access needed to continue their education. Valentia (2023) presented that picture of Indonesia that the availability and literacy of technology are uneven and in a state of digital divide. She added that the illiteracy among teachers and students was significant which caused the discontinuation of studies and affected teaching and learning.

The technological ignorance posed them with a great challenge in terms of enhancing their studies while they were locked under the pandemic.

4.3.4 Family Restrictions

The COVID-19 pandemic imposed widespread restrictions on daily life, which had significant challenges for families. For primary and high school students, the pandemic led to a range of family restrictions that affected their education, socialization, physical activity, and mental well-being. In many cases, these restrictions were enforced to protect them from the spread of the virus. These family restrictions varied depending on the severity of the pandemic, government, and policies. Though the infection was deadly and nobody was allowed to move around, the young adults found little things to spend time during the pandemic. They were bound to stay at home doing nothing enjoyable and meaningful. The family pressure made them more vulnerable and frustrated. John admitted that,

My family did not allow me to go out or mix with anyone, known or unknown. I was all alone at home doing nothing to entertain myself because of the pressure from the family. I felt frustrated and vulnerable not being able to go out to play with my friends (DU JOH 58).

One of the most significant family-imposed restrictions during the pandemic was the limitation of social interactions outside the home. To prevent the spread of COVID-19, families were encouraged, and in some cases required, to limit or eliminate face-to-face contact with extended family, friends, and peers. School closures further isolated students, who were no longer able to interact with their classmates.

Mojahed et al. (2023) discussed in their study that in addition to family restrictions, there were reports of abuse of children. As the children were isolated and locked inside the home, family members with heightened anxiety and frustration due to the pandemic, abused the children by scolding them, misbehaving, and restricting them from going out and socializing. It brings forth the picture of the misadministration of families by the parents and other elderly members of families.

Family restrictions during the COVID-19 pandemic had far-reaching implications for minor students. These restrictions, whether related to social isolation, limited educational resources, reduced physical activity, or increased supervision, significantly impacted students' well-being and educational outcomes.

4.3.5 Incomprehension of the lessons

The sudden closure of schools and the transition to online learning environments created new obstacles for both students and educators. Many high school students struggled with the demands of remote learning, which affected their academic performance, mental health, and overall educational development. One of the foremost challenges was the comprehension of the subject matter. In the context of Bangladesh, the subjects in the Bengali language have been studied and managed. However, Mathematics and English posed as tough

subjects to be managed by oneself. It was a great challenge for them to learn these two subjects. Sunil stated that,

I faced most difficulties while studying English and Mathematics. I could not solve Mathematics problems and understand well English. I had no one at home to help. Because of not study mathematics and English during the pandemic, I am still suffering from the comprehension of these two subjects (DU SUL 56).

In addition to this, the weak students even could not study by themselves other subjects. Because there was no one to help them understand their study materials. Suronjeeta spoke out that,

I have no one at home to help me to study. My father has a job, my mother goes to different houses to work and I stay alone the whole day. I do not have siblings. I learn things only when I go to school. But during the pandemic, I could not learn so much since there was no one to help me (DU SUR 60).

Murro (2024) in the context of the Philippines found out that Parents who could participate with their children in schools, could not no longer do so due to the closure of the schools and online education. This resulted in the poor grading of the students, disruptions in studies, and daily learning routines. Languing et al. (2023) discussed that minor students who were at home due to the lockdown were addicted to social media. This led to overloaded homework, an irregular lifestyle, and mental stress. Consequently, they fell back in their studies and suffered to cope with regular lessons.

The slum students, being in the midst of multiple challenges, continued their studies as they wanted to learn and educate themselves. They have dreams of doing something in their lives. They believe that without education they can not create any fortune. Therefore, they kept struggling to cope with the challenges and continue their studies.

4.4 The steps taken to overcome the Challenges:

4.4.1 Independent study

With school closures and a sudden shift to online learning, many high school students were left to navigate their studies independently. This shift posed unique challenges but also fostered new opportunities for self-directed learning. Independent study during the pandemic became essential as students adjusted to the new educational environment, relying on their motivation, discipline, and access to resources to keep up with their coursework. To equip themselves with regular lessons, these underprivileged students studied independently to fill the gap in their studies. Priyanka said that

Since I was all alone at home during the pandemic, I tried to study by myself. I could cover all other subjects except English and Mathematics. I did not want to skip my studies. Because I know without studying, I can not fulfill my dreams. I want to have a good job after my study is completed (DU PRI 62).

Aschenberger et al., (2022) analyzed the data in their study and presented that 59% of the participants carried out their studies at home during the initial pandemic restrictions. Despite having some restraints about the home environment, they encouraged themselves to continue their studies. Baten et al., (2023) study presented that the unprecedented pandemic created an opportunity for the parents to teach their children at home and play the role of teachers more effectively and efficaciously. They helped and encouraged their children to study independently and learn by themselves.

The COVID-19 pandemic presented high school students with unprecedented challenges, requiring them to adopt independent study strategies to continue their education. While many students adapted to the new learning environment by utilizing online resources,

forming virtual study groups, and relying on time management skills, the shift to self-directed learning was not without difficulties.

4.4.2 The Supportive Personnel

During this challenging period of the pandemic, students often relied on various forms of external support to help them stay engaged and succeed in their studies. Teachers, parents, peers, community organizations, and even strangers provided invaluable assistance to students in need. For many students, particularly those in the lower grades, parents became more directly involved in their education during the pandemic. As schools shifted to online learning, parents took on a more active role in facilitating their children's education, helping them access resources, and ensuring they stayed on track.

Suronjeeta is one of them who went to one of her relative's houses to learn what was missing from her regular studies. She said,

The school was closed. No teacher came to teach. There were no online or offline classes. We were in a dilemma and did not know what to do with our studies. For this reason, I decided to move from my house. I resided in one of my aunt's houses where one of my cousins helped me with my studies (DU SUR 64).

Her parents were found illiterate and could hardly help her in her studies. But the motivation she held to study, created a space to seek help from others. She took the trouble to reside at her relative's house only to learn her lessons. Priyanka faced similar problems but one of her elder cousins used to visit their home only to help her understand her lesson.

As she spoke,

My parents are illiterate. They can not help in my studies. One of my cousins who is studying in college used to visit our house to teach me about my study lessons. She was a great help to me during the pandemic (DU PRI 68).

During the COVID-19 pandemic, students were able to continue their studies and cope with the challenges supported by others. Parents, peers, and even relatives played essential roles in helping students navigate the difficulties. While the transition to remote learning presented significant obstacles, the collective efforts of various supports allowed many students to succeed academically.

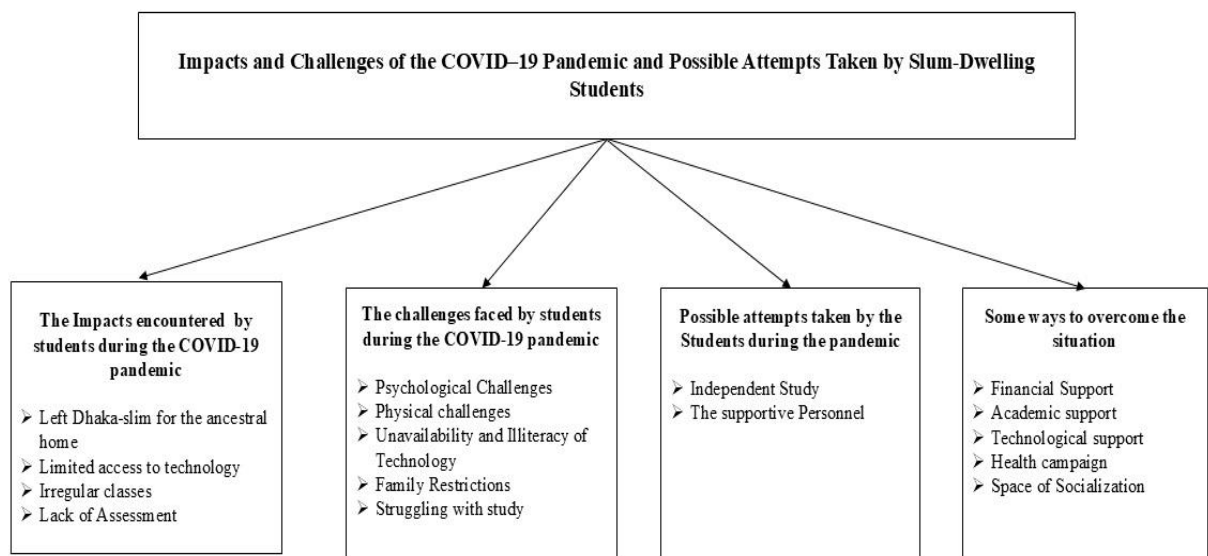


Figure: Emergent themes of the study

CHAPTER FIVE

CONCLUSION

5.1 Introduction

The closing chapter aims to summarise the major findings of the research and discuss the implications and recommendations based on the impacts, challenges, and participants' endeavours to solve challenges from their slum-home situation. The researcher unfolded the unheard cries of the slum students, the impacts of the pandemic they suffered, and the challenges they encountered. The major themes, the fruit of the research, connect the poor and vulnerable students with the rest of the world which were unexplored, uninterested, and unearthed.

The three research questions of the study were:

- 04. How were Bangladeshi Slum-Dwelling Students affected by the Pandemic?
- 05. What challenges did they face in learning during the pandemic?
- 06. How did they solve their problems?

5.2 CONTRIBUTION OF THE STUDY

5.2.1 The Implications for Theory

This research investigated the impacts and challenges of slum-dwelling students during and after the COVID-19 pandemic and how they encountered the challenges, especially regarding their studies and other aspects of their lives. The predominant impacts of the pandemic on their education are students' exodus to their father's ancestral home, irregularity, and discontinuation of classes, inaccessibility, and illiteracy in technology, and lack of

assessment and proper grading that ultimately forced them to skip their studies. The economic, social, civic, and pandemic situation put them on the edge of isolation in the world of education. In addition to this, they suffered psychological, physical, educational, financial, technological, essential resources, and family-generated challenges that imprisoned them in a new shadow world that had never experienced.

However, based on the theoretical framework of Alghamdi (2021), the Social Impact Theory (SIT), the researcher has adopted the framework into his research to guide a different piece of research throughout the study. According to SIT, there are social forces that impact individuals or society at large when the forces influence or affect people and society at large. The study was conducted on the impacts of the source, not the source itself as the study did not focus on COVID-19, but rather on how the impacts affected the lives of the students in the slum area.

Though the negative impacts and challenges were addressed here by adopting the theoretical framework, there might be positive impacts too which need further research to determine. However, the results presented here need special attention regarding facilitating learning tools, subsidies, social awareness, breaking the digital divide, and new pedagogy for these special students.

5.2.2. The Implications for Knowledge

Implications of knowledge: By collecting data and analyzing them, the study fills the gap in exploring the urban slum students during and after COVID-19. Sufficient research on mainstream students during the pandemic opens the door for studying marginalized and unprivileged students. The findings found in the study are potential effects and are stepping stones to bridge the gap that exists among urban slum students. The findings are crucial to

address the impacts and challenges of the students not only in a pandemic situation but it can potentially help the policymakers focus their concentration on these students and develop strategies to integrate their education by providing necessary learning tools and assistance. The study findings are more practical than theoretical as a social phenomenon. Despite many socio-political problems of the society and the state that already exists, the study emphasizes the need for proper and immediate initiatives from the part of the government, non-government organizations, teachers already involved in teaching them, and social consciousness to address the challenges and problems.

5.2.3 The Implications for The Society

After the outbreak of the COVID-19 pandemic and its immediate impact on people's lives, many researchers studied meticulously the drastic situation of the people who brought forth the results to ponder and take precautions action. After the outbreak of COVID 19 as the pandemic (WHO, 2020) normal movement was prohibited (Pietro et al., 2020) imposed unprecedented lockdowns across the countries (Agasist & Soncin, 2020) 90% of countries went for educational shutdown (UNESCO, 2020). Educational institutions were banned from having face-to-face learning (Ali, 2020) to prevent infection (Abidah, 2020). The mainstream education opted for the online platform for teaching and learning (Jordan, 2020). Even Governments initiated many steps to continue teaching and learning. University Grants Commission (UGC) introduced blended learning and facilitated the universities by providing BdREN Zoom for online classes (Khalid & SheriffIn; 2021). In contrast, the poor and vulnerable slum students, who are from the poor and low-income family backgrounds, studying in tuition-free schools, became helpless, indecisive, and in dilemma. In addition, the socio-environmental factors determining the economic status of a household such as a higher number

of family members, only one earning family member, an unemployed father, no household assets, food aid received by the family during the pandemic and positive COVID-19 infection in the family were associated with moderate and severe. Their schools discontinued teaching and there was no provision to bridge the study gap. These students were neither noticed, nor focused, and no initiatives were taken to facilitate their education.

Though many non-governmental organizations (NGOs) seek to provide scaffolding at different levels of development, the presence or any action plan was absent during the pandemic. Even the State did not initiate any learning-oriented steps to equip them to continue their studies. Consequently, there are many cases of school drops engaging themselves in work to earn their bread. In times of such situations in the future, the government can have a census of minor students living and studying in the slums. If they get sufficient subsidies and support especially healthcare (e.g. stress and anxiety management, physical difficulties, children's entertainment program, guardian training programs) from the government, and can continue their studies. The government could have provided technological tools, uninterrupted internet, training on technological literacy, support the schools to hold classes to ensure holistic learning. The NGOs too can plan and take adequate measures to assist these students to fulfill their dreams. The future research may investigate in-depth and find out more possibilities in navigating the situation that might suit them.

5.2.4 The Implication for Pedagogy

Students from slum areas belong to lower socioeconomic classes and face problems like the nonavailability of resources and lack of a supportive environment. There are increased expenses of the internet, increased distractions from the surroundings, concentration problems, and less understanding of the subjects. The students cannot interact with their teachers and friends and as a result, their social interaction is reduced.

Therefore, the situation needs to have a new pedagogical approach to address the loss that the students experienced during the pandemic. Teachers may take the initiative to motivate and encourage students to cope with their studies with extra care, allot time to talk with students to help them ease their psychological complexities, arrange class programs and games to animate them, talk with the parents or guardians to specify challenges and deal with them can reestablish normal teaching and learning atmosphere gradually.

5.2.5 Recommendations

On analyzing the state of life of the slum students during the pandemic and based on the findings of the study, there might be several crucial recommendations from the study. Most of the students experienced a great loss in their studies. The administration and teachers can take the initiative to assist the students in teaching even if extra classes have to be taken. The minor students went through drastic psychological and health difficulties incapable of dealing with the situation. Special meetings with the students can be arranged to identify the students psychologically wounded. Several students dropped out of their studies due to financial crises and lack of family income or personal income. A census can be carried out to identify the number of students who dropped out and a special subsidy can be provided to continue their studies. Technological advancement and availability to these students is a special issue that can

be thoroughly thought of and adequate measures may be taken to facilitate underprivileged students irrespective of their residents. An in-depth study can be done among the slum students at large to identify the impacts and challenges they faced during the pandemic to confront the same kind of situation in the future. The slum students are special children who are deprived of their rights and opportunities to bloom in life. Intense collaboration is crucial among society, local and central government, and non-government organizations to come forward to learn the situation of these students and take sustainable steps to assist them in every aspect of their damaged life caused by the pandemic.

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APPENDIX A

(This form is written in Bangla for students' convenience)

অংশগ্রহণকারীদের সম্মতিপত্র

প্রিয় অংশগ্রহণকারী শিক্ষার্থী,

আমার নাম বাঁধন রোজারিও। আমি বর্তমানে একটি প্রাইভেট বিশ্ববিদ্যালয়ে ইংরেজী বিভাগে স্নাতকোত্তর পড়াশুনা করছি। আমার পড়াশুনার অংশ হিসেবে আমি বর্তমানে একটি গবেষণামূলক লেখা শুরু করেছি।

আমার গবেষণার শিরোনাম হচ্ছে “কোভিড-১৯ চলাকালীন ও তৎপরবর্তী সময়ে শহরের বস্তির শিক্ষার্থীদের অনাবিষ্কৃত বাস্তবতা: প্রভাব, প্রতিবন্ধকতা ও সমাধান”। এই গবেষণা কাজের মূল লক্ষ্য হচ্ছে করোনার সময় বস্তিগুলোতে বসবাসরত শিক্ষার্থীরা কিভাবে ক্ষতিগ্রস্ত হয়েছে, কি কি চ্যালেঞ্জসমূহ তারা মোকাবেলা করেছে এবং পড়াশুনা চালিয়ে নিয়ে যাওয়ার জন্য তারা কি ধরনের পদক্ষেপ নিয়েছে সেই বিষয়গুলো উদঘাটন করা।

আমি আপনাকে এই কাজের অংশগ্রহণকারী হিসেবে আমন্ত্রণ জানাচ্ছি। আমার সাথে আপনার একটি সাক্ষাৎকার হবে এবং সেই সাক্ষাৎকার গবেষণার উদ্দেশ্যে অডিও রেকর্ডিং করা হবে যা সম্পূর্ণ গোপনীয়তার সহিত সংরক্ষণ করা হবে। উপরন্তু, আপনার পরিচয় গোপন রেখে ছদ্মনাম ব্যবহার করা হবে।

আপনি যদি এই গবেষণামূলক কাজের অংশী হতে চান, তাহলে অনুগ্রহপূর্বক নিচের ফর্মটি পূরণ করে স্বাক্ষর প্রদান করুন। এই গবেষণাকাজে আপনার সহযোগিতা যথাযথভাবে মূল্যায়িত হবে।

সম্মতিপত্র ফর্ম

অনুগ্রহপূর্বক নিচের বাক্যগুলো পড়ুন এবং ডানদিকে টিক চিহ্ন প্রদান করুন।

০১	আমি সম্মতিপত্রটি পড়েছি এবং এই গবেষণার প্রক্রিয়া সম্পর্কে সম্পূর্ণভাবে অবগত আছি	
০২	আমি সম্পূর্ণ স্বেচ্ছায় অংশগ্রহণ করছি এবং যেকোন সময় তা প্রত্যাহার করতে পারি	
০৩	আমি গবেষণার সাক্ষাৎকারে আমার সম্মতি প্রদান করছি	
০৪	আমি আমার সাক্ষাৎকার অডিও ও ভিডিও রেকর্ডিং এর সম্মতি প্রদান করছি	
০৫	আমি আমার সাক্ষাৎকারীকে নিচের ফোন নাম্বারে ও ই-মেইলে যোগাযোগ করার অনুমতি প্রদান করছি	

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নাম

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স্বাক্ষর

ফোন নাম্বার:

ই-মেইল

Appendix B

Interview Questions for Participants

SL	Interview Questions (IQs)	Backgro und Informati on	RQ1	RQ2	RQ3
			How are Bangladeshi Slum-Dwelling Students affected by the Pandemic?	What challenges do they face in learning during the pandemic?	How do they solve their problems ?
01	What is your name? How old are you?	X			
02	Where do you live? Who are there at home?	X			
03	Do you work? If, where, and what?	X			
04	which class do you study in? where do you study?	X			
05	Were you infected by covid-19?	X			
06	Were you at home during the pandemic? if not, why?		X		
07	Were there any offline or online classes?		X		
08	What are the problems you faced regarding your studies?			X	
09	What were your learning challenges? Please explain			X	
10	How did you manage your studies? What did you do?				X
11	Did your school or anybody help you to study in any way?				X

Appendix C

Interview Transcription for Sample

Respondent Name: Instructor

Date:02-12-2022

Code: # 1 T

Time: 12:45

Interview:

Place: At Home

No	Part	Questions and Answers
1	I	Good Afternoon
2	R	Good afternoon!
3	I	How are you?
4	R	I am fine.
5	I	What is your name? How old are you?
6	R	My name is Salman. I am 18 years old.
7	I	Where do you live? Who are there at home?
8	R	I live in Fokirapool, near the vegetable market.
9	I	Do you work? If, where, and what?
10	R	Yes, I work. I work in Hatirpool in a factory.
11	I	How do you study then?
12	R	I work during the day. That's why I go to school in the evening.
13	I	which class do you study in? where do you study?
14	R	I study in class eight. I study at Arambagh night school.
15	I	Were you infected by covid-19?
16	R	Hahahah..Nooo..I did not....I was vaccinated twice from the school.
17	I	Were you at home during the pandemic? if not, why?
18	R	"All of us we went our village home. During the pandemic, we could not pay the cost of housing. My father lost his job. Therefore, we had to leave for home in the village."

19	I	Then you could not attend classes?
20	R	No. I did not attend any classes. Our school was closed also.
21	I	Were there any offline or online classes?
22	R	Our school was closed because of the lockdown We did not have any online classes. Only once a week, we used to go to school for our assignments. Since there were no classes, we could not learn especially mathematics and English. We did not even have any
23	I	What are the problems you faced regarding your studies?
24	R	I used to feel bored a lot at home during the pandemic. even I feared to go out or mingle with anyone in fear of infection.”
25	I	Did you have any examinations?
26	R	We did not have any examinations due to the closure of the school. We used to come to the school every Friday to collect assignments and submit the given assignments. We were evaluated based only on our assignments. However, I used to complete my assignments learning from the YouTube tutorials. So, real learning did not occur and I could learn much.
27	I	Did your parents allow you to go out?
28	R	My family did allow me to go out or mix with anyone. I was all alone because of the pressure from the family.”
29	I	Do you have a mobile at home?
30	R	I do not have any. At home, only my father has a mobile. When he comes back from home, I use that time.

31	I	Don't you like to have a phone?
32	R	No, I do not. hahaha
33	I	What were your learning challenges? Like understanding or your work at home?
34	R	"I have no one at home to help me to study. My father has a job, my mother goes to different houses to work and I stay alone the whole day alone. I do not have siblings. I learn things only when I go to school. But during the pandemic, I could not learn so much since there was no one to help me."
35	I	You told you went to village?
36	R	Yes, we were there for one year, then we came back. I also joined in my work. Now everything is Ok
37	I	How did you manage your studies? What did you do?
38	R	Since I was at home for all the time at home during the pandemic, I tried to study by myself. I could cover all other subjects except English and Mathematics."
39	I	Did your school or anybody help you to study in any way?
40	R	No, our school was closed. No teacher came to teach us. Since I do not have relatives or siblings, nobody helped me. I studied all alone. Because I love to study. I want to pass SSC.
41	I	That is very pathetic!
42	R	Hummmmmmm
43	I	Did you feel Sick when you were at home?

44	R	I used to feel bored a lot at home during the pandemic. I even feared to go out or mingle with anyone for fear of infection. I did not have any television at my home. There was no opportunity to spend time alone. I used to feel angry too regarding the pandemic. Why does this kind of disease occur
45	I	What Did you do at home? Do you have a television at home?
46	R	We have a television at home. I preferred to watch sports channels rather than watching cartoons. But my younger sister liked watching cartoons very much. We used to fight each other and my mom used to scold me for fighting as I was the elder. This made me very unhappy mentally at home
47	I	Thank you, Salman, for your time. You have answered very well. It will help me to write my homework.
48	R	Thank you too.
49	I	Okay, take care and have a good time
50	R	Thank you.

APPENDIX D

SAMPLE INTERVIEWS OF PARTICIPANTS

Notational Conventions of the Interview Transcripts

	Notation	Meaning
01	DU	Discourse Unit
02	I	Interviewer
03	[]	For showing action [Laughs]
04	,	Small pause
05	...	Long pause (if in the middle of the sentence) Incomplete sentence (if at the end of sentence)
06	Umm/uh	Hedging in speech
07	DU SU 59	DU <space> student name's first three alphabets <space> DU number DU SUR 59 refers to Suronjita's DU number 59.

Appendix E
Sample of a coding template

Interview Questions (1)	Subordinate key word of question (2)	Subordinate main point from conversation (3)	Elaborated examples from verbal evidence to support the subordinate main point (4)	Occurrence of main idea transferred into the form as key word(s) (5)	Frequency of occurrence (6)	Ordering of discourse unit (7)
1. Were you at home during the pandemic? if not, why?	Students affected by the pandemic	Left home Economic Crisis No classes	“During the pandemic, we could not pay the cost of housing. My father lost his job. Therefore, we had to leave for home in the village.” “I resided at one of my aunt’s houses because there was no device and no one to help me in my studies as the school was closed during the pandemic”.	Students left the slum for the village because of the economic crisis and the closing of schools.	3	
2. Were there any offline or online classes?	Continuation of Schooling Learning Shift	No schooling No online class YouTube Assignments No assessment	Our school was closed because of the lockdown “We did not have any online classes. Only once a week, we used to go to school for our assignments. Since there were no classes, we could not learn especially	There was no school in any platform. No formal learning took place for slum-students. No proper assessment.	5	

			mathematics and English. We did not even have any assessment. That's why I was not serious to learn anything."			
3. What are the problems you faced regarding your studies?	Challenges of pandemic	Economic	"Though my school does not charge any money, but there were learning materials uploaded on YouTube which I could not utilize properly because I did not have a smart mobile."	Students faced with the economic crisis in their continuous learning	4	
		Psychological	"I used to feel bored a lot at home during the pandemic. even I feared to go out or mingle with anyone in fear of infection."	Most of the students are confronted with psychological problems; such as fear, boredom, and loneliness.	5	
		Technological	"My friends informed me that there were learning materials on YouTube but I did not know how to search on YouTube."	Technological devices were not available to them.	4	
		Family	My family did allow me to go out or mix with anyone. I was all alone because of the pressure from the family."		4	
4. What were your learning challenges? Please explain	Learning challenges	No school No one to help No devices	"I have no one at home to help me to study. My father has a job, my mother goes to different houses to work and I stay alone	The learning challenges were no schooling, No technological devices, and	3	

			the whole day alone. I do not have siblings. I learn things only when I go to school. But during the pandemic, I could not learn so much since there was no one to help me.”	no one to help them to study at home.		
5. How did you manage your studies? What did you do?		Independent study No study of Math and English	“Since I was at home for the whole at home during the pandemic, I tried to study by myself. I could cover all other subjects except English and Mathematics.”	Students studied at home by themselves in only a few subjects but in mathematics and English, they lack proficiency.	3	
6. Did your school or anybody help you to study in any way?		No help Help from friends and relatives	“The school could not help me because no teacher came to teach. I resided in one of my aunt’s houses where one of my cousins helped me with studies” “I have an elder brother who is studying in college now helped me a lot in my studies.” “before the exams, one of my cousin sisters used to come to help me understand my study material.”	They did not get any help from the school but some got help from friends and relatives.	2	

Appendix F

Sample Theme Generation Template

Research question 1:	How are Bangladeshi Slum-Dwelling Students affected by the Pandemic?				
Interview question	Were you at home during the pandemic? if not, why?				
John (C1)	Salman (C2)	Priyanka (C3)	Sunil (C4)	Suronjeeta (C5)	Themes
Left Home Economic Crisis No Classes	Left home Economic Crisis No Classes	Remained at home No Classes	Left home Economic Crisis No Classes	Remained at home No Classes	Left home Economic Crisis No Classes At home
Interview Q.	Were there any offline or online classes?				
No schooling No online class YouTube Assignments No assessment	No schooling No online class No assessment	No schooling No online class No assessment	No schooling No online class No assessment	No schooling No online class YouTube Assignments No assessment	No schooling No online class YouTube Assignments No assessment
Research question 2:	What challenges do they face in learning during the pandemic?				
Interview question	What are the problems you faced regarding your studies?				
Economic Psychological Technological Family	Economic Psychological Technological Family	Psychological Technological Family	Economic Psychological Technological Family	Psychological Technological Family	Economic Psychological Technological Family
Interview question	What were your learning challenges? Please explain				
No school No one to help No devices	No school No one to help No devices	No school No devices	No school No one to help No devices	No school No devices	No school No one to help No devices
Research question 3	How do they solve their problems?				
Interview question	How did you manage your studies? What did you do?				
Independent study No study of Math and English	Independent study No study of Math and English	Independent study No study of Math and English	Independent study No study of Math and English	Independent study No study of Math and English	Independent study No study of Math and English
Interview question	Did your school or anybody help you to study in any way?				

No help Help from friends and relatives	No help Help from friends and relatives	No Help from friends and relatives	No help Help from friends and relatives	Help from friends and relatives	No help Help from friends and relatives
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Appendix G

Rating for Students' Interview

[illegible]

*YouTube Assignments	*YouTube Assignments		were no classes, we could not learn especially mathematics and English. We did not even have any test.			
*No assessment	*No assessment					

R.Q. 2: What challenges do they face in learning during the pandemic?

I.Q. 3: What are the problems you faced regarding your studies?

*Psychological	*Psychological	SAL 30	“Though my school does not charge any money, but there were learning materials uploaded on YouTube which I could not utilize properly because I did not have a smart mobile. “me a lot...even I think I can choose anyone, any ...which one and use that.”	/	Did not add
*Technological	*No access to				bored
*Family	*Lack of technological knowledge				
	*Family restrictions	JOH 28	“I used to feel bored a lot at home during the pandemic. even I feared to go out or mingle with anyone in fear of infection.”	/	

		SUR 31	“My friends informed me that there were learning materials on YouTube but I did not know how to search on YouTube.”	/		
		SUR 28	“My family did allow me to go out or mix with anyone. I was all alone because of the pressure from the family.”			

I.Q. 4: What were your learning challenges? Please explain

*No school *No one to help *No devices	*No school *No one to help in the family *No devices	SAL 32	“I have no one at home to help me to study. My father has a job, my mother goes to different houses to work and I stay alone the whole day alone. I do not have siblings. I learn things only when I go to school. But during the pandemic, I could not learn so much since there was no one to help me.”	/		
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R.Q.3. How do they solve their problems?

I.Q. 5: How did you manage your studies? What did you do?						
*Independent study *Teachers' absence	*Independent study *Teachers' absence	JOH 38	"Since I was at home for the whole at home during the pandemic, I tried to study by myself. I could cover all other subjects except English and Mathematics."	/		
I.Q. 6: Did your school or anybody help you to study in any way?						
*No help *Help from friends and relatives	*No help *Help from friends and relatives	PRI 45	"The school could not help me because no teacher came to teach. I resided in one of my aunt's houses where one of my cousins helped me with my studies"	/		

Name of the Rater: Dr. Sabreena Ahmed, PhD

Date:

Appendix H
Inter-Rater Reliability Calculation for Students' Interviews

	Percentage of agreement (Total number of agreements/Total number of responses) x100
Inter-rater:	(9/10) x100 =90%

Appendix I
Audit Trail of the Study

Date	Activities
May 29, 2024	Approval of topic and supervisory committee at the Brac University
July 12, 2024	Contacting the Headmaster of a school to interview students
July 19, 2024	Interviews of participants
September 13, 2024	Transcribing interview
October 20, 2024	Analysing students' interviews
November 28, 2024	Contacting the rater for interview rating, and receiving inter rater's feedback.