

Teachers' readiness for adopting blended learning approach: In the context
of underprivileged schools of Dhaka city

By

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fulfillment of the requirements for the degree of
Master of Education in Educational Leadership & School Improvement

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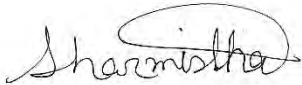
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Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing 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 which 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.

Student's full name and signature:

A handwritten signature in black ink, appearing to read 'Sharmistha', is written above a horizontal line.

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Approval

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Ethics Statement

This research adhered strictly to established ethical principles and guidelines. Recognizing the critical importance of privacy in sensitive studies, permission was taken from all participants, assistant teachers and head teachers before data collection. Confidentiality was rigorously maintained throughout the research process to protect participants' identities. Furthermore, all information was collected, transcribed, and documented with precision for confirming the accuracy and trustworthiness of the study's findings.

Abstract

The readiness of teachers working in underprivileged schools of Dhaka to adopt blended learning was examined in this study. Understanding these resource-constrained settings is key to closing the achievement gap as education goes digital. The research, based on qualitative interviews and observations of schools, finds that teacher readiness is dangerously low, not for lack of will but for system failures. Major barriers include bandwidth poverty, lack of gadgets, and massive administrative work. In addition, skills acquired during the pandemic are being lost to cognitive erosion, and informal peer-learning often breeds social tension. The findings suggest that gadgets alone are not sufficient. To be successful, blended learning requires a structural shift. To achieve digital goals in a sustainable reality both for teachers and students, a major transformation needs like expert-led training, on-site technical support to fair compensation.

Keywords: Blended learning; Dhaka city; Teacher readiness; Underprivileged schools; Cognitive erosion; Digital education.

Dedication

I would like to dedicate this thesis to my brother Gourob Kundu whose guidance and ideas helped to conduct every part of this research.

Acknowledgement

I would like to express my sincere gratitude to my supervisor, Ms. Wasima Nahrin, for her tremendous patience and thoughtful guidance. Her constant support throughout my journey proved vital in forming this study and helping me successfully complete the research process. I also thank the BRAC Institute of Educational Development (BRAC IED) for the support and materials needed for this work. This study was possible thanks to the Head Teachers, Assistant Teachers, and all school teams involved in my fieldwork. I am grateful for their time, cooperation, and openness. On a personal note, I owe a sincere debt of gratitude to my parents. Their faith in me always gave me courage in my life. Finally, my husband- whose constant support help me overcome challenges and complete this thesis.

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Chapter 1: Introduction and Background

1.1 Introduction:

Education is the key driver for individual income generation and a country's economic development. Evidence indicates that educational attainment plays an important role in individual income generation and, by extension, in countries' economic growth, as reflected in years of schooling (Krueger & Lindahl, 2021). In developing nations like Bangladesh, making sure that all children, including those from underprivileged communities, receive a high-quality education is essential to closing the learning gap. However, Shari & Howard (2013) noted that enrolling more students in schools does not indicate that the quality of education is improving; rather, that helping children learn is more important. A study by Leu (2005) suggests that to ensure quality education, teachers fulfil a pivotal role for students. Furthermore, teachers' readiness with regard to teaching techniques is a key factor in their ability to teach students. Integrating digital tools into education yields significant improvements, yet success depends on overcoming key systemic obstacles. Decision-makers need to utilize current findings to build a digital framework that is inclusive, effective, and beneficial (Hamzah et al., 2023).

Global educational trends are rapidly shifting towards the integration of technology. The educational landscape has transformed from chalkboards to a hybrid environment. It has been replaced with an integrated technology model. In the aura of transformation, the digital infrastructure is the “body” part, teachers’ pedagogical agility and psychological attitude are its “soul”. A study by Mason (1998) mentioned that the new direction with the tools of technology is changing the delivery and receiving system in education. Though pedagogical changes have made replacements for the traditional to modern ones already, global trends in using technology have made drastic changes. Burbules et al. (2020) talked about the five trends of education, and the process of teaching is one of them. Also, the highlighted point is a sustainable future. The global direction of education is to make an impact that sustains all. Besides, the change's main concern is adopting new trends, the ability to negotiate, having the intellectual skill, and perspective to understand the importance of change by the teacher (Ho, 2009). Since going with the new trends is a must to get accustomed to the global arena, the adaptation of teachers to the newer trends to deliver effective teaching-learning methods is also a major requirement.

A major shift is the adoption of a blended learning system. This combines traditional face-to-face teaching with computer-mediated learning. Geaham (2005) defines blended learning as “a combination of face-to-face instruction with computer-mediated instruction.” In essence, blended learning gives students control over the time, pace, and place of their learning. Part of the learning happens in school; part occurs outside school (Topping et al., 2022).

Blended learning, “the hybrid learning technique, has become a new trend in education” (Baquero & Escortell, 2022), but if it is added properly in the education system, it provides ease to the education system and comforts educators. Yet the hold backs are inefficiency and difficult in preserving academic reputation. So, policymakers should investigate how to implement technology effectively and beneficially for all.

Before the covid-19 pandemic, traditional methods were the primary way of teaching in Bangladesh. However, during and after the pandemic, the government of Bangladesh has been motivating teachers to take classes in a blended learning approach which means taking online classes and providing worksheets to sustain the learning process and minimize the learning gap. Teachers' adaptation to the new trend to achieve a sustainable impact is a vital factor. Despite digitalization, many educators find themselves stuck between conventional teaching practices and the complex demands of a hybrid environment. Therefore, they experienced the “readiness gap”. This study is primarily focused on exploring how teachers in schools with underprivileged students are ready to adopt the blended learning method and how professional development, technical knowledge, and institutional support intersect to determine efficiency.

1.2 Research Topic:

Dhaka, the capital of Bangladesh, is a densely populated city (Islam, 2000). Here, the digital divide is the stark reality. Global education demands the incorporation of technology. On the other hand, the story of an underprivileged school is different. In the resource-constrained setting, the teacher is much more than an educator. Other than teaching, teachers need to convey and make students comfortable and trustworthy (Gunduz, 2016). Additionally, their pedagogical readiness and psychological strength need to be ready to adopt blended learning.

Readiness is a package of preparation for any experience(s) or action(s). Readiness plays a prominent role in teachers' adopting online teaching as well as the traditional method. It is a major

shift from only physical classroom settings to online classrooms, even for a certain portion (Phan & Dang, 2017). Teachers' readiness for teaching using virtual platforms is the teachers' preparedness for teaching. It also looks into the attitude toward the outcome of teaching online and the confidence in teaching online (Martin et al., 2019). Therefore, the teachers' confidence and attitude are the necessary factors for blended learning to be an effective teaching-learning tool. The study was concerned with teachers' capacity and preparedness to implement the blended learning method. It has also addressed the availability of school facilities like teachers' training and motivation on blended learning, resource allocation, action, monitoring, and what support system teachers need to implement blended learning and make themselves ready. The research topic is **"Teachers' readiness for adopting blended learning approach: In the context of underprivileged schools of Dhaka City"**, which is the teachers' adaptability and preparedness attitude.

1.3 Statement of the Problem:

According to the ICT Division (2022), to achieve Vision 2041, Bangladesh needs to connect citizens through digital technologies. Though there are significant gaps in policies and realities in the underprivileged schools of Dhaka City.

The quality of education in an educational institution relies on several factors, with the readiness of teachers being one of the most important. This is because new techniques will continuously be added to the education system, and technological uses have increased in recent years. Teachers need to be equipped to lead classes efficiently, regardless of the subject they teach or the method they follow. "The institution must define clear guidelines and train educators so that they can execute the program well". (Ventayen et al., 2020)

Hence, it is crucial to conduct a study on teachers' readiness for successful implementation of 'Blended Learning Approach' in the current education field. Moreover, readiness to blended learning can positively influence other factors of better teaching quality. According to Jusoh (2012) in Malaysia, the study revealed that the teachers' readiness to provide effective teaching-learning methods is an important aspect to achieve mastery, developing practices, and cultivating entrepreneurial values among primary school students.

In the global context of higher studies, the blended learning method has been introduced for more than two decades to improve outcomes. Shivam and Singh (2015) explained blended learning as

“the best possible solution for meaningful learning.” However, there is a lack of implementation and adaptation (Scherer et al., 2021). That could be one reason teachers are not ready. In a study of Pakistan on the advantages, limitations and recommendations for online learning during the COVID-19 pandemic era, it was recommended that training faculty on the use of online modalities and developing lesson plans are important to mitigate the limitations (Mukhtar et al., 2020).

Besides, in Bangladesh, teachers of government primary schools are suffering from different problems along with the lack of updated teaching aids and practicing the only traditional classroom teaching method (Ahmad, 2014). A study in the West Indies talked about the limitations of teachers’ readiness. The overall improvement of teaching and learning in multiple schools, global investment in ICT has been initiated by many governments. However, the study revealed the rigid structure of the traditional teaching system, lack of pedagogical training of teachers, lack of teachers’ skills in ICT, and lack of teachers’ confidence as hindrances to implementing computer technology in the education system (Buabeng-Andoh, 2012). A study by Chen (2009) noted that *“faculty workload, and lack of faculty rewards are significant barriers that prevent institutions from offering blended learning”*. The lack of rewards and incentives leads to the ineffectiveness of implementing the blended learning method.

Unlike standard schools in Bangladesh, schools for underprivileged students have different factors that affect their regular activities. In addition, implementing blended learning for underprivileged students adds more hindrance to the process of preparing teaching materials. The use of technological devices is the main challenge (Rasheed et al., 2020). Adopting new methods also makes them uncomfortable, as they are used to a particular method. The lack of familiarity with technology in spite of training and the unavailability of internet connectivity play a big role (Khan et al., 2021). Additionally, an absence of proper training to utilize, a lack of proper guidance, a lack of resources, and also the thought of unavailable technological resources towards students binds teachers from adopting blended learning in the teaching-learning method.

Moreover, there is a lack of studies on this topic, particularly in Bangladesh, where research on teachers' readiness to adopt blended learning in underprivileged schools in Dhaka city is scarce.

This study is conducted with the aim of benefiting various stakeholders. It will support schools serving underprivileged students and assist government bodies in implementing new educational approaches in primary schools. Training institutes that prepare teachers will also gain insights, as will the teachers themselves, who will identify their overall challenges. Additionally, NGOs like

Teach For Bangladesh that deploy teachers will find value in the findings. Ultimately, this research aims to enhance the overall education system by effectively helping teachers to practice blending learning in their regular teaching methods.

1.4 Research Questions:

The particular study is concentrated on the following three research questions:

- a) What is the current level of readiness among teachers in underprivileged schools in Dhaka City for adopting a blended learning approach?
- b) What challenges do teachers face in underprivileged schools in Dhaka City when implementing a blended learning approach?
- c) What are the recommendations for underprivileged school teachers to adopt a blended learning approach?

1.5 Purpose of the study:

The first and primary objective of the research was to find out the current level of readiness of the teachers of underprivileged schools of Dhaka city for implementing the blended learning. Teachers of Dhaka city, regardless of any type of school, often face new challenges. After the COVID-19 pandemic, schools closed, countrywide academic achievement became low, and the learning gap started increasing. Building upon the Government of Bangladesh's mandate to implement blended learning in its teaching methods, the transition remains a complex challenge for the teachers. The study findings inform teachers' readiness to adopt a blended learning approach. This study's results illustrated the teacher's perspective on blended learning, their readiness, evaluated the support of school authority, and investigated the impact of resource scarcity.

Through the exploration of these dimensions from the teacher's perspective, the study seeks to offer a localized roadmap for school administrators and policymakers to ensure that blended learning becomes a sustainable pedagogical reality rather than a temporary crisis-response measure.

1.6 Significance of the study:

Blended learning has gained prominence due to its potential to increase the productivity in education since it is the combination of traditional classroom teaching with online and other innovative approaches. Additionally, it offers a very customized yet flexible learning method that

helps to activate better learning experiences and outcomes. It also makes learning more interactive and engaging. In the 21st-century demands, it is crucial for educators to be proficient in online tools. Studying teachers' readiness highlights their ability to adapt to modern teaching methods. When the teachers are ready to uplift the benefits of blended learning, it will definitely create a positive impact to mitigate the learning gap and therefore the students' retention in the schools. It also ensures that they can be accustomed to the demands of students and also to the 21st-century workforce. Investigation of teachers' readiness has now allowed this study to understand the potential challenges, and further, the results of the study help to develop strategies and identify challenges that can help in a smoother transition in the future. The insights of the study can also guide the equipped teacher with skills, knowledge, and understanding requirements in online resources and technology infrastructure. Furthermore, this study of teachers' readiness of blended learning can also benefit the policy makers and technical persons who are involved in curriculum development, which ultimately leads to the benefit of the students at underprivileged schools.

Chapter 2: Literature Review and Conceptual Framework

2.1 Literature Review:

Blended Learning:

Blended learning is a must for implementation of world class education system. Hrastinski (2019) mentioned a study on blended learning. Blended learning is defined as a blend of face-to-face and online learning. Blended learning is also explained in another study as a combination of face-to-face and technology-supported self and distance study (Launer, 2010). The blended learning method can be said to require a lot of use of technological gadgets and teachers have to adapt to it.

Blended learning contributes to a better student learning outcome:

Blended learning results in more attention and attractiveness towards the students, which leads to better outcomes. A study examining the effectiveness of online and blended learning in schools, especially relevant during the COVID-19 pandemic, found that “blended learning was considerably better than online learning” (Topping et al., 2022). According to Poon (2013) ‘it can impact students’ perception of the learning environment and thus their study experience, learning outcome, and ultimately academic achievement’. In terms of the increased effectiveness of Blended Learning, many studies have shown that students who participated in blended learning programs achieved better results than those in traditional in-person or online classes (Smith & Hill, 2018). A study of Francis & Shannon (2013) examines implementing blended learning in engineering, design, and architecture and highlights that students who do not participate in this approach face academic disadvantages. This shows that if implemented properly, blended learning results better than traditional methods. Blended learning helps in shifting the teaching-learning environment from teacher-centric to student-centric. That gives students the liberty to study. It induces more interactive relationships among teachers’ students, and parents, which leads to an improved learning environment (Hake, 1998).

Teacher readiness to implement blended learning and its importance

Readiness for change is the determinant of outcome (Weiner, 2009). Students’ output basically depends on the input of the teacher. The teacher’s output comes more when the teacher is ready to deliver. To produce effective teaching and learning methods, teachers’ readiness in teaching is

very significant (Jusoh, 2012). Teachers have to regularly learn and implement new things to make the best output for their students. Teachers help to increase the competency of students if they are ready to face any challenges and can adapt to new things (Cahyono et al., 2021). Therefore, teachers' readiness is important to get the best output from the students. Since the traditional lecture-based teaching is different from interactive blending learning teaching method. therefore, to embrace the new method and to achieve the best output, the readiness of teachers is of the utmost priority

Global perspective of blended learning and readiness of teachers

Nowadays, the world's education system has changed. A study of the Philippines by Tupas & Laguda (2020) mentioned mandatory professional development for teachers, the lack of gadgets, and poor bandwidth. It is quite a major issue because if the teachers are not trained and the gadgets with which the Blended learning is conducted are inadequate, then the impact is not positive. In the Malaysian education blueprint (2013-2025), Science, Technology, Engineering, and Mathematics education (STEM) was introduced. In a study of teachers' readiness to implement the new STEM education, it has been seen that 70% of them were not ready to implement it, as it is a new method (Ramli et al., 2017). That means the implementation of new methods in education requires teachers' readiness. Another study said that in spite of two decades of the popularity of online classes in Vietnam, university teachers need a good amount of preparation to adopt them (Phan & Dang, 2017). A Study on Indian elementary schools revealed that despite technological improvement, not 100 percent of the schools have a computer, and for those that do have one, a significant number of school teachers only know basic computer literacy. (Kundu, 2018).

Blended learning and teacher readiness in local context:

During the school closure due to the COVID-19 pandemic, education institutions in Bangladesh started online classes. Many institutions were left in a quandary by the government's decision. As Dutta & Smita (2020) explained, "The use of online education would not be the best way to teach-learning in the context of Bangladesh, as many universities did not have enough resources for running online education urgently. "Some teachers tried to teach classes online on their own initiative but had some problems with virtual learning courses on online platforms." The situation of schools in Bangladesh was not good either. While the teachers were trying to minimize the learning gap of students, they also faced their professional issues. A study on an underprivileged

school in Dhaka revealed that since the teachers' burnout rate due to overall workload is very high, the urge for systematic reform is very necessary. (Islam, 2021)

Singh (2003) stated that the focus of blended learning highlights on achievement of learning objectives with the combination of the right technology, the right teaching style and the right teacher. Hai (2014)

mentioned in research that underprivileged students even suffer from social bondage, lack of educational status and skills, weak livelihood, and poor economic status. Therefore, adopting blended learning can also be stressful for them.

The COVID-19 has had a huge impact on the Bangladeshi people. Especially, the underprivileged community had an extensive crisis in ensuring education for their children. A study in India revealed that the blended learning environment can stimulate the interest of the students in learning. It also shared that good quality digital content and expert teachers can make huge learning achievements irrespective of the socio-economic condition of students (Dey & Bandyopadhyay, 2019).

2.2 Conceptual Framework:

Conceptual Framework

This study has taken into account the readiness of the teachers of the underprivileged schools of Dhaka city to shift to blended learning approach. The framework includes three interconnected structures (teachers' preparedness, difficulties encountered, and systems and resources needed) which collectively define the ability of schools and teachers to actively participate in blended learning.

Teachers' Readiness: the central construct of the framework is teachers' readiness, which is defined as their ability and willingness to integrate blended learning into classroom practice. Readiness is formed by three dimensions:

- **Technological proficiency**, refers to the extent to which teachers are comfortable using digital tools.
- **Pedagogical skills**, particularly the ability to adapt teaching strategies to a blended format.
- **Openness to innovation**, which captures teachers' attitudes toward adopting new instructional methods.

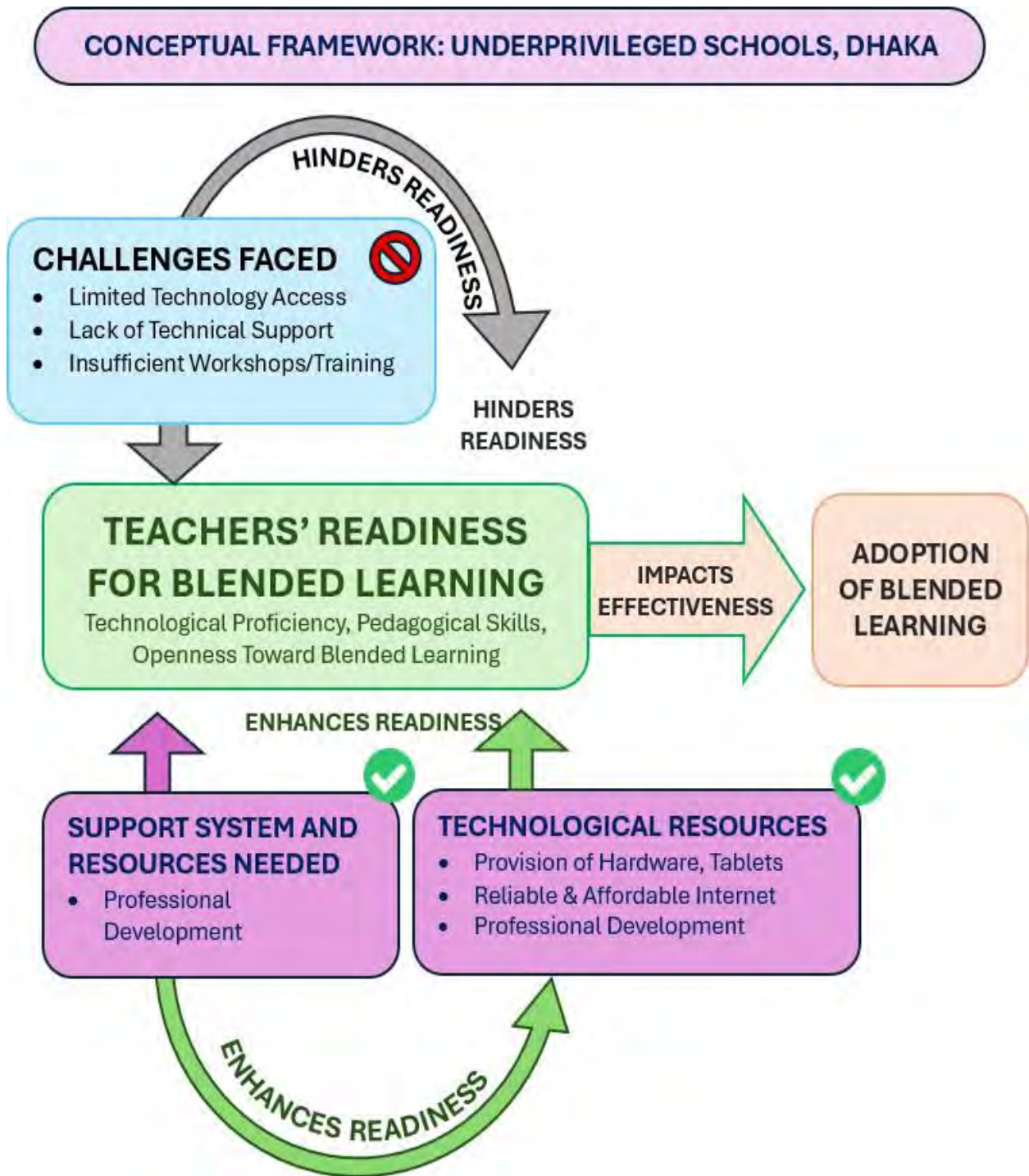
The extent of readiness is the key to how well teachers can practice blended learning in resource-poor settings.

Challenges Faced: Teachers working in underprivileged schools often encounter systemic barriers that limit their readiness. These include restricted access to technology, inadequate technical support, and limited opportunities for professional training. In addition, the degree of commitment from school leadership- through supportive policies and encouragement- plays a critical role. When these elements are lacking, teachers' capacity to adopt blended learning is significantly constrained.

Support Systems and Resources Needed: To overcome these barriers, teachers need both infrastructural and professional support. Blended learning is dependent on access to laptops, tablets or other digital devices and affordable and reliable internet connectivity. Equally important are opportunities for professional development, such as workshops and training programs that can build teachers' confidence and competence. These resources help them not only to solve the current problems but also to build up teachers' preparedness to adopt blended learning.

Integrative Perspective: Overall, the framework shows that teachers' readiness is not an isolated trait, but rather the result of the interplay between challenges and support systems. Although challenges may still exist, targeted investments in resources and professional development can better prepare schools with fewer resources and empower their teachers to successfully implement blended learning strategies.

Visual representation:



Chapter 3: Methodology

3.1 Research Approach

The study used the qualitative approach to investigate teachers' readiness the The study used the qualitative approach to investigate teachers' readiness for adopting blended learning and the factors that hinder them from implementing it in their teaching methods. A similar study on teachers' readiness also used a qualitative method (Ramli et al., 2017). Also, the consideration of using this method came from the concept of Creswell (2003). According to the statement of Creswell (2003), the qualitative approach is used to understand social and human problems. The qualitative approach helps figure out the readiness of teachers to adopt the blended learning approach. Moriarty (2011) also mentioned that the qualitative research approach is used in under-researched areas to know about people's perceptions. Creswell & Guetterman (2019) mentioned that qualitative research is conducted to explore a problem and, develop a detailed understanding. To capture the participants' experiences, open-ended questions are used. The readiness of teachers to adopt blended learning has not been much researched. Specifically, research to comprehend the readiness of teachers of underprivileged schools to adopt blended learning in Dhaka city has hardly been conducted. This study is about understanding the readiness of teachers and the factors that hinder them from implementing blended learning in the teaching-learning method.

3.2 Research Site

Since the research area of this study is Dhaka City, two underprivileged schools within the city were selected. The study respondents were teachers from two schools with underprivileged students. One of the schools is situated in the Shantinagar area, with 60 students and 6 Assistant Teachers. Another school is situated at Malibagh, with 90 students and 8 Assistant Teachers.

3.3 Research Participants

To understand teachers' readiness, a study of Malaysian education also took teachers as its participants (Ramli et al., 2017). Similarly, to understand the teachers' readiness, two types of participants have been chosen in this study:

- Head Teachers
- Assistant Teachers

The study subjects are from 2 different underprivileged schools of Dhaka city. The chosen teachers' teaching experiences are from 3 to 10 years especially those who have experiences in conducting classes during the COVID-19 pandemic along with their first-hand experience of blended learning.

3.4 Sample Procedure

The purposive sampling was employed in this study. According to Tongco (2007), "the purposive sampling technique is a type of non-probability sampling that is most effective when one needs to study a certain cultural domain with experts within. In this study the knowledge of readiness is only known by the teachers and head teachers can add to their knowledge. Considering the nature of the qualitative study, interviews have been conducted with the study participants (Head Teacher and Assistant Teacher) and school observation.

Three Assistant Teachers and one Head Teacher from each of the two schools was interviewed, and school observation of schools were done. After completion of the initial data collection, the data.

3.5 Data Collection Method:

Interviews and school observations have been used as the data collection method for this study.

The methods are:

- Interview with Assistant Teachers
- Interview with Head Teachers
- School observation

The Head Teachers of both schools were contacted and permission was obtained to collect data from the selected participants. First, they were informed about the purpose of the study. Then the researcher fixed a convenient time for face-to-face interview with the Head Teachers. In 3 cases of unavailability, telephone interviews have been done. Before the interview, for both face-to-face and telephone, permission was taken for recording of the conversation. Finally, the schools were observed using a checklist. The researcher visited the schools to assess whether the administration provides the necessary technological support systems to enable teachers to effectively adopt a blended learning approach.

3.6 Data Collection Tools

To assess teachers' readiness, in-depth interviews have been conducted with the Assistant Teachers and the Head Teachers. In-depth interviews are particularly effective as individuals are often reluctant to openly share their weaknesses. Given the sensitive nature of this study, which focuses on teachers' readiness, maintaining confidentiality and protecting privacy becomes crucial. A study by Allmark et al. (2009) on ethical issues in the use of in-depth interviews highlighted that "maintaining confidentiality and protecting privacy presents significant challenges." This study will also include a school observational checklist to evaluate whether the two schools provide adequate training facilities, possess sufficient technological gadgets, and determine the usability of these resources.

3.7 Role of Researcher

The researcher has 3 years of schooling in underprivileged community, 2 years of which were in a school with underprivileged students. In order to maintain the objectivity, the researcher adopted a neutral, nonjudgmental stance toward the teachers. Data collection and analysis were oriented toward honoring the voice of the participants, active listening, and avoiding one's own biases.

3.8 Data Analysis Process:

The data were analyzed using thematic analysis. Initially, recorded interviews were transcribed and notes were taken. Subsequently, codes were identified, categorized, and themes and patterns were derived from the data. School observations focused on the availability of smart devices and internet connectivity on the premises. The final report was developed based on the thematic findings and school observations.

3.9 Ethical Issues and Concerns

Privacy protection is an important issue in sensitive studies. The researcher had obtained consent from all participants. The identity of both the Assistant Teachers and Head Teachers was kept strictly confidential and private.

- 1 In this research, informed consent was obtained from the teachers. The confidentiality of their identities will be maintained.
- 2 Consent was obtained from both Assistant Teachers and the Head Teacher, and their identities were kept confidential.

- 3 Data were collected and transcribed accurately, and all information was thoroughly documented.

3.10 Credibility and Rigor

To ensure rigor, data were collected and transcribed authentically to document real, unfiltered information. The research process was designed to achieve data saturation, ensuring a comprehensive understanding of the participants' perceptions was achieved before concluding the analysis. The researcher is committed to presenting a completely authentic final report.

3.11 Limitations:

Small Sample Size:

The study involves a limited number of participants. Because of this small scale, the findings might not reflect the reality of the scenario of the entire school for underprivileged students of Dhaka city. Additionally, if the research had incorporated the voice of other stakeholders, such as students and parents, the findings would have reflected a broader prescriptive.

Biased Response:

Data was largely collected through interviews. Though privacy was assured, it is possible that some teachers felt a bit hesitant to completely open up at the beginning about their personal digital shortcomings or openly criticize the school administration.

Observation of online class:

In the post COVID-19 pandemic period, blended learning was not practiced in schools. So, the findings of the classroom observations could not be included in the research for comprehensive results.

Time boundary

There was a time gap between the time when the proposal of the research was approved and the time when data collection began. It may not track the expected findings of the research, as new situations and interventions were introduced during the period.

Chapter 4: Findings

The report presents the preparedness of teachers of underprivileged schools of Dhaka city to adopt blended learning. The report analyses the responses of Head Teachers and Assistant Teachers to identify systemic barriers, skill degradation and the social dynamics which affect the adoption of blended learning.

1. Infrastructural Constraints and Logistical Challenges:

Connectivity Barriers: Assistant Teachers report that they do not get internet coverage in the classrooms. From school observations, it is also evident that, though the internet is available in staffrooms, it is not always feasible for teachers to facilitate online classes there, as teaching requires a quiet space and teaching materials such as books and note copies. One of the Assistant Teachers said that,

"Whether it is an online or offline class, teaching should take place in classrooms because there is noise in the staffroom, and our seating capacity is also not wide".

In addition to that, the internet is very weak. And when high-speed internet is inaccessible in the teaching space, the "online" component of the blended learning method becomes a theoretical concept rather than a practical tool. This leads to "bandwidth poverty," where slow speeds prevent the use of essential tools like Zoom or Google Meet, or even YouTube. These bandwidth constraints act as a severe barrier to readiness, echoing Tupas & Laguda's (2020) findings. One Assistant Teacher mentioned:

"Sometimes the internet speed becomes so poor that we cannot load YouTube educational videos to show our students".

The inability to access real-time digital resources or research new methodologies prevents teachers from improving their teaching. This leads to a mismatch between the modern curriculum and classroom delivery, which significantly hampers teacher morale. When a teacher cannot fulfil their lesson plan due to technical failure, it results in a loss of professional confidence and an increasing anxiety regarding completing the syllabus.

For students, the impact is a lack of classroom awareness. Without the visual engagement of digital content, underprivileged students, who may already lack resources at home, face an instructional

gap that leaves them underprepared and low in confidence during formal examinations.

These results suggest that simply having internet access is not enough for blended learning; without stable, high speed internet coverage, especially in the classroom, teachers' readiness is mostly theoretical.

Challenges in accessing resources: The study identified a severe deficit in gadgets required to conduct classes, with an average ratio of one laptop to every six Assistant Teachers. However, the lack of gadgets is secondary to the "bureaucratic friction" required to access them. The procedure of accessing these limited technological resources is highly exhausting. One Assistant Teacher described the exhausting procedure: One of the Assistant Teachers stated that,

"While we need to use the school's laptop, we need to follow a long procedure. First, we have to collect a slip from the Admin Officer, who is very busy with different tasks. After getting the slip, we need to fill out the laptop's details along with the reasons for taking the laptop and the time of returning. During the time of return, we need to follow the same procedure".

These procedures take time and often lead to delayed starts or skipped classes altogether. This inconsistency interrupts the students' study rhythm and leads to a fall in classroom discipline and interest.

These annoyances hamper innovation. Teachers reported losing their temper or feeling demotivated before the class even begins. Furthermore, underprivileged students who may only have access to a device for a short period of time (often borrowed from parents) are unfairly punished when classes do not follow the timetable.

It is also found through school observations that computer labs often remain locked, and gadgets are difficult to access, resulting in teachers not getting the platform to nurture their digital literacy. This leads to a phenomenon in which even the existing technology remains underutilized because teachers have lost the confidence to try new methodologies and technology.

The findings clearly portray that the challenges in accessing gadgets limit the preparedness of teachers for adopting the blended learning method.

Hardware Failures: The study found that having equipment does not mean it is available to use.

In one case, expensive tools like projectors stayed broken for a long time because the school management did not take action to fix them. The school lacks an immediate repair procedure and hardware maintenance. One of the assistant teachers said:

"We have only one projector in our school, which has been non-functional for a long time.

The authority is not taking any initiative to repair."

Head teachers and assistant teachers said that laptops and desktops were broken, and school observations show the same thing.

When digital tools aren't fixed, the "blended" model falls apart, forcing teachers to go back to old ways of teaching, which leaves big gaps in learning.

Because some of the units are broken, there aren't enough gadgets for everyone, and too many teachers are using the ones that are still working. This makes the time it takes to prepare lessons longer, which leads to rushed, lower-quality materials that don't keep students interested. This also has an impact on teachers' confidence in their teaching.

These experiences show how hardware problems impact the readiness of blended learning.

Financial Burden: A critical finding is that moving towards blended learning has hidden costs that the schools do not wish to bear. To maintain class continuity, teachers are often forced to use their personal funds to purchase mobile data.

This financial strain directly hampers technical readiness, supporting Hai's (2014) observation that adopting blended learning can be highly stressful for underprivileged communities due to poor economic status. Head Teachers also acknowledged the financial burden on the Assistant teachers. One of the respondents mentioned that,

"Most of the time, due to poor Wi-Fi coverage, I have to buy mobile data at my own cost. It is not always possible to spend money from my pocket."

Depending on teachers' personal mobile data is an unsustainable model for blended learning. It creates an environment that is highly stressful for educators in underprivileged schools.

When a teacher can't afford data or when it runs out in the middle of a lesson, the flow of learning is very badly affected. These interruptions in the middle of class are especially bad for students' cognitive engagement because they have to start over with their learning process all the time, which

makes them frustrated and more likely to leave the online sessions.

These findings show that the readiness for adopting blended learning is hampered because of financial strain.

Overload of administrative tasks: The study found that teachers are overwhelmed by non-teaching administrative duties like management of the Government Stipend Programme (Upobritti), leaving them with no time to master the new pedagogies required for blended learning. One Assistant Teacher noted,

"Other than the teaching services, we have to do thousands of administrative tasks. We can't adopt new skills as our schedules are already full."

The practice of blended learning, which is preparing digital worksheets, managing student feedback, and balancing online and offline classes, is perceived as a burden rather than a benefit. Without a reduction in existing administrative tasks, it results in teachers' mental pressure and eventually burnout, where the quality of both online and offline instruction suffers.

Due to time constraints, teachers use technology only at a surface level, rather than fully integrating it into their teaching, such as simply showing a video without proper integration, rather than achieving deep, blended pedagogical practice. This fails to mitigate the learning disparity among the students and instead creates a messy educational experience that lacks clear direction or a feedback system.

This administrative overload greatly restricts the time necessary to build readiness and directly supports Islam's (2021) finding that rates of teacher burnout are very high due to overall workload. This is the perspective of Heads of Schools who advocate for the employment of dedicated administrative staff so that teachers can focus only on teaching and learning.

2. Cognitive Erosion:

The transformation to digital tools for teaching during the COVID-19 was a survival, not a planned pedagogical change. Teachers, feeling the pressure, had to adapt to digital tools like Zoom and Google Meet, but these skills plummeted when they returned to traditional classrooms after the pandemic. The study identified two main dimensions to this decline: the loss of acquired skills and a shallowness of technical proficiency.

Teachers' Fading Skills: Digital literacy is not permanent learning. It requires constant practice and training. Because the usage of technology in teaching has dropped significantly after the COVID-19 pandemic, educators are experiencing what can be termed as "cognitive erosion". One Assistant Teacher explained this regression clearly:

"During COVID-19, I used to take online classes. However, now if you tell me to take class online, I will not be able to facilitate. The reason is a lack of practice."

As teachers lose their digital skill set, they spend the majority of their class time troubleshooting basic software issues rather than engaging with students. This pushes the focus from a pedagogy point of view to technical survival. Hence, the students get deprived of a dynamic learning experience from their teachers. This also lowers the teacher's confidence in conducting classes.

If teachers cannot operate the tools with confidence, the "blended" part of the curriculum becomes a matter of frustration. This directly limits student competency. As the progress made during the pandemic reduces, it leaves the school with near-zero digital readiness.

This decline in technical readiness directly impacts output, as Cahyono et al. (2021) note that teachers must be ready to adapt to new challenges to increase student competency. Therefore, it can be said that digital literacy is not a one-time badge that is earned and kept forever. If schools do not make these digital tools a part of everyday work, the progress teachers made during the pandemic will simply disappear.

Surface-Level Knowledge: An important finding is that, even though teachers claim to be familiar with applications such as WhatsApp, Zoom or Google Classroom, their skills in using these applications are rudimentary and they cannot manage a full-blown blended module.

The teacher's digital expertise is limited to basic features, leading to functional anxiety when faced with slightly more complex tasks. An Assistant Teacher noted:

"I can only perform basic operations like sending photos, inviting students for online class, sharing screens, etc., but I don't know how to use the whiteboards of Google Meet or how to use Google Drive."

Because teachers do not know how to use tools such as digital whiteboards or shared drives, their online classes remain one-way lectures rather than interactive learning experiences.

This lack of technical expertise creates a fear among teachers to use technology itself. Teachers hesitate to implement new methods, resulting in a learning environment that fails to utilize the existing tools.

Head Teachers also mirrored the Assistant Teachers' lack of technical fluency, which is required to facilitate comprehensive online classes. This particular gap in technical readiness is consistent with Kundu's (2018) study of Indian elementary schools, where many teachers had only basic computer literacy.

3. Socio-Technical Friction

Technology has upset the normal school hierarchy and created socio-technical tension. This friction is a battle between years of pedagogical experience and the urgent need for technical progress.

Inter-Generational Conflict: The digital shift has created a role reversal with senior educators seeking help from younger, tech-savvy colleagues. This creates a clash of minds, which impacts the overall attitudinal readiness of the school. A perceived threat to professional prestige and a collapse of peer support. One Head Teacher observed:

“Senior teachers do not feel prestigious to learn from younger colleagues, and sometimes, younger teachers give less effort to guide senior teachers.”

Blended learning requires a combination of the right teaching style and the right technology. When senior teachers feel their years of experience are undervalued by "tech-savvy" juniors, their fixed mindset refuses the digital transition altogether. Teachers are not focusing on improving classroom creativity or creating diverse lesson plans. They are also unable to engage students, resulting in a learning gap.

This fixed mindset and attitudinal resistance prevent the synergy needed for blended learning, which requires combining the right technology, the right teaching style, and the right teacher (Singh, 2003). It is important to note that this friction is not widespread. Rather, the resistance is limited to a small group of senior teachers. Friction blocks the knowledge-sharing needed to make blended learning a school-wide success.

Perceptual challenge: The findings further indicate that senior teachers prefer structured,

formal training sessions on digital blended learning tools delivered by external experts to ad-hoc or informal lessons from younger colleagues.

This preference for formal training shows a lack of trust in ad-hoc learning. Senior teachers who do not have formal expert led sessions are stuck in traditional methods. This creates a system where students get varied levels of digital education based on the age and expertise of their teacher.

These irregularities result in a shattered learning experience for students. Their chance to gain modern digital skills becomes a matter of luck, depending on whether they are taught by a tech-savvy teacher or one who follows traditional methods.

4. Comprehensive reform

The findings of this research imply that a comprehensive reform plan is required for the successful application of blended learning as a theoretical concept in the underprivileged schools of Dhaka. It is important that this reform include three key components: professional training, technical support and fair remuneration. That responsibility is left up to individual teachers, which is not a sustainable plan for long-term success without those supports.

Continuous and Professional Training: The research shows that digital literacy is not a one-time achievement but an ongoing process. Assistant teachers showed a strong need for regular refresher trainings to prevent the skills from fading due to ever-changing software interfaces. As one Assistant Teacher mentioned:

“I do not find the apps the same all the time. They change their settings and interface. So, I need regular training to keep myself updated.”

Without regular training, teachers struggle to keep up with software updates and new digital tools. This prevents them from moving beyond basic tasks like sharing screens to more advanced pedagogical techniques.

The study observed that a lack of physical space, such as dedicated training rooms equipped with speakers, microphones, or smartboards, makes it nearly impossible to turn professional development into a consistent part of teaching. This lack of resources sends an indirect message that digital growth is not a school priority. If teachers cannot keep up with updates, they cannot teach their students how to use these apps, creating a cycle of digital illiteracy that affects both the instructor and the learner.

On-site IT Support: The lack of dedicated IT staff is a major obstacle identified. When a glitch occurs, teachers are left to turn to “busy colleagues” or try to fix the problems themselves, often outside of their skill sets.

When a device hangs up or a connection fails, the entire lesson stops. This makes teachers function as technicians, not educators. Teachers are scared of these glitches, and a single technical glitch can throw a day’s lesson plan out, so they are reluctant to use technology at all. Teachers often lose valuable minutes of classroom time waiting for help or fixing problems, which takes away from the time they have to actually teach and engage their students.

The need for functional equipment is also reflected in the literature reviewed on the Indian context. Kundu (2018) agrees that “many teachers in South Asian elementary schools have only basic literacy skills even when technology is present,” so the need for dedicated IT support is even more critical.

Pay Reform and Workload Alignment: The addition of blended learning has added to teachers’ existing workload, requiring a lot of extra time for preparation and digital management. This added workload and personal financial cost without a pay increase gravely demotivates the teachers. One Assistant Teacher noted:

“If I practice blended learning, I need to work more, spend more time, and sometimes I need to buy mobile data from my own pocket. So, I deserve a better salary.”

The teachers are stressed out, buying their own mobile data to conduct online classes. This financial strain, combined with an intense workload, leads to high burnout rates and a lack of motivation to explore.

When teachers feel their effort is not valued, they naturally reduce their engagement. Resulting in a poor lesson plan that fails to keep the students focused in class.

When the salary scale is not revised to match these modern demands, schools risk losing their most capable and tech-literate staff to other sectors, further weakening the quality of education in underprivileged areas.

Chapter 5: Discussion and Conclusion

5.1 Discussion

The shift to blended learning in Dhaka's underprivileged schools is not only a technical challenge, but a deeply human and systemic one. This section summarizes the study's findings, demonstrating how different barriers are interconnected and create a frustrating cycle for educators. The discussion below explores why true 'readiness' remains out of reach, from the way poor internet causes digital skills to fade over time to the social tensions in the staffroom and the heavy burden of administrative work.

Infrastructural Challenges Interacting with Cognitive Erosion

The study finds that infrastructural challenges are one of the major immediate hurdles to implementing blended learning. One of the infrastructural challenges was the location and coverage of WiFi, which hampers classroom teaching. This aligns with the existing literature of Dutta & Smita (2020), who highlighted that the unavailability of devices and poor internet speed are primary barriers to online education in Bangladesh.

Internet facilities were available for staff rooms even before blended learning was introduced. The school authorities may not understand the technicalities and importance of upgrading the internet facilities. Additionally, they find bearing the cost of upgrading the existing system unnecessary. This supports the idea of "Infrastructure Limitations" outlined in the study's conceptual framework, showing that without easy access to reliable resources, the expected benefits of blended learning- like flexibility and student control- cannot be achieved.

Comparing these findings to regional studies, such as Kundu's (2018) research on Indian elementary schools, reveals an important dimension. While both Dhaka and Indian schools share identical infrastructural hurdles, specifically bandwidth poverty and gadget scarcity, the socio-cultural landscape differs. Dhaka benefits from a largely uniform linguistic and cultural background, whereas Indian educators must navigate language barriers and deep-seated caste divisions. This suggests that Dhaka's technical challenges maybe immense but the city has a unique opportunity. If the systemic and financial hurdles are settled, there will be fewer cultural barriers left to carry out blended learning.

Crucially, this lack of functional infrastructure, which is a component in the framework, directly triggers the next major barrier, Cognitive Erosion. Since teachers cannot reliably access the internet or use devices in their classrooms, and schools do not integrate these tools into daily work, they are deprived of the regular practice required to maintain their technological proficiency. This mirrors the concern raised by Phan & Dang (2017), who noted that even after decades of online class popularity, teachers still require significant preparation to adapt. Also, because teachers are comfortable using traditional teaching methods, they are hesitant to adapt to a new system, which hampers their level of confidence. Martin et al. (2019) emphasized confidence and attitude as key indicators of faculty readiness; the findings suggest that confidence is directly linked to the continuity of usage.

Additionally, a point to be noted is that, earlier the COVID-19, teachers were accustomed and comfortable with the traditional way of teaching. There were almost no uses of technology in teaching. This reflected one of the study findings, surface-level knowledge, which makes teachers feel unequipped, creates functional anxiety," showing how a breakdown in systemic support directly weakens a teacher's technological proficiency. Without a reliable "support system" to ensure regular usage, any progress in digital literacy will be temporary and unsustainable.

Socio-Technical Friction and Barrier to Adaptation

The study reveals a clear "inter-generational conflict" between senior and young teachers. When senior teachers need to interact with their younger colleagues to learn about IT staff, they feel that their experience is undervalued. This adds a crucial social dimension to the "Attitudes and Beliefs" component of the conceptual framework. This aligns with the work of Ho (2009), who noted that a teacher's ability to negotiate change and adopt new trends is critical. In this context, the rigid mindset of senior teachers becomes a barrier to the IT skills required for adaptation.

Financial Burden and Administrative Overload

The findings point to the financial and administrative realities of teachers in underprivileged schools. Teachers stated that they had to bear the financial burden directly, having to buy mobile data themselves in many situations. This confirms the concern raised by Hai (2014) that the poor economic status of the underprivileged community makes adoption of blended learning stressful. These are the "hidden costs" of blended learning and are a big demotivator.

Furthermore, teachers explicitly stated that they are too busy with non-teaching duties. This overload of administrative tasks prevents teachers from exploring and mastering new pedagogies. This systemic issue contradicts the ideal scenario presented at literature review, in which it is mentioned about making the environment student-centric and interactive. As mentioned by Hake (1998). Blended learning does not consist only of online classes, but also includes interventions such as in-person classes, question-and-answer sessions, or even worksheet practice. Thus, the expected paybacks of blended learning cannot be achieved with the burden of non-teaching effort.

Breaking the Cycle: A Roadmap to Real Blended Learning

The study findings reveal that the potential of blended learning exists, but the readiness of teachers in Dhaka's underprivileged schools is critically low. As illustrated in the conceptual framework, barriers to teachers' readiness are part of a negative cycle of interaction: poor infrastructure and administrative overload impede the daily use of technology, leading to cognitive erosion. These interconnected challenges have implications for practice, policy and the readiness of teachers. From a policy perspective, it is evident that merely providing digital devices will not suffice. Policymakers must design budgets that will relieve the financial pressure on teachers. Incentives such as data stipends can be introduced and salary scales adjusted to reflect the increased workload that accompanies blended learning adoption. School administrators need to build good support systems for practice. This includes hiring dedicated administrative staff so that teachers can focus on teaching, ensuring that the internet in classrooms is reliable and having technical support available on-site. Most importantly, schools need to move away from informal peer-mentoring and implement continuous, professional development led by the experts in order to cultivate true teachers' readiness. Only these synchronized and systemic reforms will benefit teachers grow the assistances and openness necessary for making blended learning a reality.

5.2 Conclusion

The study findings reveal that the potential for readiness of teachers of Dhaka's underprivileged schools is currently in a cycle of failure. When we look at the results through the research framework, it becomes clear that teacher readiness is not just about an individual's skill.

The data shows that poor infrastructure and a heavy administrative workload are the first roadblocks. Because teachers are overwhelmed and lack reliable internet in their actual

classrooms, they stop using technology daily. This lack of regular use leads to cognitive erosion, where the digital skills they worked so hard to learn during the pandemic simply fade away.

To make up for this loss of skill, schools often fall back on informal help from younger, tech-savvy teachers. However, as this research shows, this easy fix does not work well. It creates social friction and intergenerational conflict, making senior teachers feel disrespected or undervalued. Instead of helping, this informal system actually builds a psychological wall, making experienced teachers more resistant to using digital tools.

Ultimately, these findings suggest that just providing devices is not enough. If the system does not address the hidden financial costs to teachers and the burden of non-teaching tasks, technology will continue to be seen as a stress rather than a help. The learning gap we see in students is not because teachers are not trying; it is because they are working within a system that does not support the blended learning goals.

In conclusion, the readiness of teachers and the instructional gap faced by students in these schools are not the result of a lack of teacher effort. Instead, it is the result of a system that has focused on providing basic gadgets without providing the necessary technical support, fair pay, and expert training.

5.3 Recommendations

To find out the barriers recognized in this research and effectively support teachers' readiness in underprivileged schools of Dhaka, the following recommendations are proposed:

Infrastructural development for a better Internet and Easier Access

Internet access needs to move beyond the staff room and into the classrooms where teaching actually takes place. A practical fix for school management would be installing Wi-Fi extenders to increase network speed and improve signal strength in classrooms. This ensures the connection is fast enough for video streaming or live online sessions, finally putting an end to "bandwidth poverty."

Bureaucratic rules, such as locked labs or complex paperwork, stop teachers from using school electronic gadgets. Schools should replace long approval forms with a simple daily sign-out sheet. If it is easy to get a laptop, teachers will be more likely to use gadgets in their daily lessons.

Implementation of Continuous and Professional Development:

Teachers must be trained through regular and professional training sessions conducted by experts. This approach promotes a respectful working environment and reduces the socio-technical friction and inter-generational conflict observed in this study.

Training sessions should focus not only on surface-level knowledge but also on deep mastery of tools, such as using digital whiteboards and cloud storage, to boost teachers' confidence.

Regular refresher training is necessary to combat cognitive erosion and stay up to date with frequent application updates. To operationalize this, schools could organize a structured two-hour monthly workshop led by an IT professional. Furthermore, a 15-minute "tech update" session could be held at the beginning of regular monthly staff meetings to keep teachers informed about application updates without taking up too much time.

Establish Dedicated On-Site Technical Support:

It is also important that schools have someone providing dedicated IT support during school hours so that technical glitches like hardware failures or connectivity issues can be dealt with on an immediate basis. This will enable teachers to concentrate on teaching and not troubleshooting. Alternatively, if the school cannot afford to employ an IT professional on a full-time basis, it can work with a local vendor to be on call as a priority during teaching hours. This will ease the functional anxiety of teachers when faced with technological glitches.

Reform Policy for Workload Management and Compensation:

Schools should adopt police on hiring separate administrative staff to take over non-teaching duties. By doing this, teachers will be free to focus on preparing their lesson plans and improving their digital teaching skills, as well as having time for student feedback.

We now need financial reforms. For example, blended learning can come with hidden costs for teachers, like paying for mobile data out of their own pockets. This burden could be immediately addressed by management adding a monthly data allowance to the salaries of their employees. Furthermore, the salary structure needs to be reviewed to be a fair reflection of the extra workload and the particular digital skills which the Assistant Teachers are now expected to bring to the classroom.

Reference

- Ahmmad, M. R. (2014). The problems of the effective classroom teaching in Govt. colleges in Dhaka City. *Humanities and Social Sciences*, 2(4), 17-22. <https://doi.org/10.11648/j.hss.20140202.12>
- Allmark, P., Boote, J., Chambers, E., Clarke, A., McDonnell, A., Thompson, A., & Tod, A. M. (2009). Ethical issues in the use of in-depth interviews: Literature review and discussion. *Research Ethics*, 5(2), 48-54. <https://doi.org/10.1177/174701610900500203>
- Baquero, A., & Escortell, R. (2022). BLENDED LEARNING: A NEW TREND IN EDUCATION. <https://library.iated.org/view/BAQUERO2022BLE>
- Bonk, C. J., & Graham, C. R. (2005). *The handbook of blended learning: Global perspectives, local designs*. John Wiley & Sons.
- Buabeng-Andoh, C. (2012). An exploration of teachers' skills, perceptions and practices of ICT in teaching and learning in the Ghanaian second-cycle schools. *Contemporary educational technology*, 3(1), 36-49. <https://dergipark.org.tr/en/pub/cet/issue/25727/271451>
- Burbules, N. C., Fan, G., & Repp, P. (2020). Five trends of education and technology in a sustainable future. *Geography and Sustainability*, 1(2), 93-97. <https://doi.org/10.1016/j.geosus.2020.05.001>
- Cahyono, S. M., Kartawagiran, B., & Mahmudah, F. N. (2021). Construct Exploration of Teacher Readiness as an Assessor of Vocational High School Competency Test. *European Journal of Educational Research*, 10(3), 1471-1485.
- Chen, B. (2009). Barriers to Adoption of Technology-Mediated Distance Education in Higher-Education Institutions. *Quarterly Review of Distance Education*, 10(4), 333-338.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.).
- Dey, P., & Bandyopadhyay, S. (2019). Blended learning to improve quality of primary education among underprivileged school children in India. *Education and Information Technologies*, 24(3), 1995-2016. <https://link.springer.com/article/10.1007/s10639-018-9832-1>
- Dutta, S., & Smita, M. K. (2020). Dutta, S., & Smita, M. K. (2020). The impact of COVID-19 pandemic on tertiary education in Bangladesh: students' perspectives. *Open Journal of Social Sciences*, 8(09), 53. *Open Journal of Social Sciences*, 8(9), 53-68. <https://doi.org/10.4236/jss.2020.89004>
- Francis, R., & Shannon, S. J. (2013). Engaging with blended learning to improve students' learning outcomes. *European Journal of Engineering Education*, 38(4), 359-369. <https://doi.org/10.1080/03043797.2013.766679>

- Gunduz, M. (2016). What Are the Teaching Responsibilities of Being a Teacher? *Educational Research and Reviews*, 11(8), 623-629. <https://files.eric.ed.gov/fulltext/EJ1098209.pdf>
- Hai, M. A. (2014). Problems Faced By The Street Children: A Study On Some Selected Places In Dhaka City, Bangladesh. *International journal of scientific and technology research*. <http://hdl.handle.net/10138/159050>
- Hake, R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. *American journal of Physics*, 66(1), 64-74.
- Hamzah, F., Abdullah, A. H., & Widad, M. (2023). Advancing Education through Technology Integration, Innovative Pedagogies and Emerging Trends: A Systematic Literature Review. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, 41(1), 44-63.
- Ho, S. T. (2009). Addressing Culture in EFL Classrooms: The Challenge of Shifting from a Traditional to an Intercultural Stance. *Electronic Journal of Foreign Language Teaching*, 6(1), 63–76.
- Hrastinski, S. (2019). What do we mean by blended learning? *Tech Trends*, 63(4), 564-569. <https://link.springer.com/article/10.1007/s11528-019-00375-5>
- ICT Division. (2022). Smart Bangladesh ICT master plan 2041. Government of the People's Republic of Bangladesh. <https://file-dhaka.portal.gov.bd/media/530b85cf-229d-4f64-a932-7ad46ef57029/uploaded-files/6-smart-bangladesh-ict-master-plan-2041-final-version-en-latest-updated.pdf>
- Islam, K. M. (2021). Deploying Blended Learning in the New Normal Pedagogy: Challenges and Prospects in Bangladesh. *International Journal of Asian Education*, 2(4), 531-538. <https://eric.ed.gov/?id=ED628869>
- Islam, M. S. (2000). The Environment of Densely Populated Areas of Bangladesh: With Special Reference to Dhaka and Secondary Towns (1st ed.). <https://www.taylorfrancis.com/chapters/edit/10.4324/9780429449611-9/environment-densely-populated-areas-bangladesh-special-reference-dhaka-secondary-towns-mir-shahidul-islam>
- Jusoh, R. (2102). Effects of Teachers' Readiness in Teaching and Learning of Entrepreneurship Education in Primary School. *International Interdisciplinary Journal of Education*, 1(7). <https://doi.org/10.12816/0002885>
- References Kundu, A. (2018). Blended Learning in Indian Elementary Education: Problems and Prospects. *Journal of Online Learning Research*, 4(2). <https://www.learntechlib.org/primary/p/180971/>, 1(7).
- Khan, R., Basu, B. L., Bashir, A., & Uddin, M. E. (2021). Online Instruction during COVID-19 at Public Universities in Bangladesh: Teacher and Student Voices. *TESL-EJ*, 25(1). <https://eric.ed.gov/?id=EJ1302575>
- Krueger, A. B., & Lindahl, M. (2001). Education for Growth: Why and for Whom? *JOURNAL OF ECONOMIC LITERATURE*, 39(4), 1101-1136. <https://www.aeaweb.org/articles?id=10.1257/jel.39.4.1101>
- Kundu, A. (2018). Blended Learning in Indian Elementary Education: Problems and Prospects. *Journal of Online Learning Research*, 4(2). <https://www.learntechlib.org/primary/p/180971/>
- Launer, R. (2010).

Five Assumptions on Blended Learning: What Is Important to Make Blended Learning a Successful Concept? In *International Conference on Hybrid Learning*, 6248, 9-15. https://link.springer.com/chapter/10.1007/978-3-642-14657-2_2

Leu, E. (2005). The Role of Teachers, Schools, and Communities in Quality Education: A Review of the Literature. *Academy for Educational Development*. <https://files.eric.ed.gov/fulltext/ED490174.pdf>

Martin, and, F., Budhrani, K., & Wang, C. (2019). Examining faculty perception of their readiness to teach online. *Online Learning*, 23(3), 97-119. <https://files.eric.ed.gov/fulltext/EJ1228799.pdf>

Mason, R. (1998). *Globalising Education: Trends and Applications*. Routledge. <https://doi.org/10.4324/9780203983287>

Moriarty, J. (2011). Qualitative Methods Overview. National Institute for Health Research School for Social Care.

Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era. *Pakistan Journal of Medical Science*.

Patricia, I. F., & Lawrence, R. N. (2015). Are We There Yet? Data Saturation in Qualitative Research. *Walden Faculty and Staff Publications*, 20(9). <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=1466&context=facpubs>

Phan, T. T., & Dang, L. T. (2017). Teacher Readiness for Online Teaching: A Critical Review*. *International Journal on Open and Distance e-Learning*, 3(1).

Poon, J. (2013). An institutional approach for enhancing students' learning experiences. , 9(2), 271. *Journal of online learning and teaching*, 9(2). https://jolt.merlot.org/vol9no2/poon_0613.pdf

Ramli, A. A., Ibrahim, N. H., Surif, J., & Bunyamin, M. A. (2017). Teachers' readiness in teaching stem education. *Man in India*, 97(13), 343-350. https://www.researchgate.net/profile/Nor-Ibrahim-16/publication/318886496_Teachers'_readiness_in_teaching_stem_education/links/5d25ef04458515c11c229609/Teachers-readiness-in-teaching-stem-education.pdf

Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education*, 144. <https://www.sciencedirect.com/science/article/abs/pii/S0360131519302544>

Sahin, M. (2010). Blended learning in vocational education: An experimental study. *International Journal of Vocational and Technical Education*, 2(6), 95-101. <https://academicjournals.org/journal/IJVTE/article-full-text-pdf/6D83DA2650.pdf>

Scherer, R., Howard, S. K., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in human behavior*, 118. <https://doi.org/10.1016/j.chb.2020.106675>

Smith, K., & Hill, J. (2018). Defining the nature of blended learning through its depiction in current

- research. *International Journal of Technology in Education*, 38(2), 383-397.
<https://doi.org/10.1080/07294360.2018.1517732>
- Shari, K., & Howard, W. (2013). Quality education for all children? What works in education in developing countries. *The International Initiative for Impact Evaluation*.
https://www.3ieimpact.org/sites/default/files/2019-01/wp_20.pdf
- Shivam, R., & Singh, S. (2015). Implementation of Blended Learning in Classroom: A review paper. *International Journal of Scientific and Research Publications*, 5(11), 369-372.
- Singh, H. (2021). Building effective blended learning programs. *Challenges and opportunities for the global implementation of e-learning frameworks*, 15-23. <https://www.igi-global.com/chapter/building-effective-blended-learning-programs/277742>
- Tongco, M. D. (2007). *Purposive sampling as a tool for informant selection*. University of Hawaii at Manoa. <http://hdl.handle.net/10125/227>
- Topping, K. J., Douglas, W., Robertson, D., & Ferguson, N. (2022). Effectiveness of online and blended learning from schools: A systematic review. *Review of Education*, 10(2). Weiner, B. J. (2009). A theory of organizational readiness for change. *Implementation science*, 4(1), 1-9.
<https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-4-67?report=reader>
- Tupas, F. P., & Laguda, M. L. (2020). Blended Learning – An Approach in Philippine Basic Education Curriculum in New Normal: A Review of Current Literature. *Universal Journal of Educational Research*, 5(2), 5505-5512.
- Ventayan, R. M., Salcedo, R. E., Orlanda-Ventayen, C. C., Ventayen, L. M., & Ventayen, T. M. (2020). Senior High School Teachers' Practices and Readiness in Blended Learning Environment: Basis for a Blended Learning Preparedness Framework. *International Journal of Scientific & Technology Research*, 9(2).

Appendix A

Interview Questions for School Teachers

1. What is your understanding of the blended learning approach?
2. Have you ever used any form of technology or digital tools in your classroom?
If yes, what was your experience?
3. (a) What kind of technology have you used in the classroom?
(b) How do students respond to technology in their classroom?
4. How confident do you feel about using technology in teaching?
5. What challenges do you face in incorporating technology or blended learning strategies in your teaching? (e.g., understanding the digital device- mobile/laptops, understanding new applications - Google Meet/Zoom/IMO, use of applications)
6. How do resource constraints (e.g., lack of devices, internet, or training) affect your ability to use blended learning?
(a) Can you share with us an instance where you had to face trouble due to this?
7. Do you have access to sufficient technological resources and training to implement blended learning effectively?
8. What kind of support or resources do you think would help you adopt blended learning?
9. What changes in school policies or infrastructure would make it easier for you to implement blended learning?

শিক্ষকদের জন্য প্রশ্ন

১। ‘ব্লেন্ডেড লারনিং’ পদ্ধতি নিয়ে আপনার ধারণা কি?

২। আপনি পড়ানোর সময় ডিজিটাল টেকনোলজির ব্যবহারে কতটুকু আত্মবিশ্বাসী?

৩। আপনি কি কখনও আপনার ক্লাসরুমে ‘ডিজিটাল টেকনোলজি’ ব্যবহার করেছেন? যদি করে থাকেন, তখন ক্লাস নেয়ার অভিজ্ঞতা কেমন ছিল?

(ক) কি ধরনের ডিজিটাল টেকনোলজি ব্যবহার করেছেন?

(খ) শিক্ষার্থীরা কিভাবে ডিজিটাল টেকনোলজির ব্যবহারে সাড়া দিয়েছিল?

৪। ডিজিটাল টেকনোলজির ব্যবহারে কিংবা ‘ব্লেন্ডেড লারনিং’ পদ্ধতির ব্যবহারে আপনি কি কি ধরনের প্রতিবন্ধকতার শিকার হয়েছেন?

Appendix B

Interview Questions for Head Teachers

1. How prepared do you think your teachers are to adopt a blended learning approach?
(a) Can you please explain why you believe it?
2. What steps has the school taken to introduce or support blended learning?
3. What challenges have you experienced in implementing blended learning in your school?
4. How does the school address the challenges related to the teachers' training and resource availability?
5. How accessible is technology (e.g., computers, internet) for teachers and students in your school?
6. In your opinion, what support or initiative is needed to ensure the successful adoption of blended learning in your school?

প্রধান শিক্ষকদের জন্য প্রশ্ন

- ১। আপনার মতে আপনার স্কুলের শিক্ষকরা কি পরিমাণে প্রস্তুত 'ব্লেণ্ডেড লারনিং' -কে তাদের পড়ানোর একটি মাধ্যম হিসেবে গ্রহণ করতে?
(ক) আপনি কি একটু বিশদভাবে বর্ণনা করতে পারবেন কেন আপনি এটি মনে করেন?
- ২। আপনার স্কুল 'ব্লেণ্ডেড লারনিং' ব্যবহারের জন্য কি কি পদ্ধতি অবলম্বন করেছে?
- ৩। আপনার স্কুলে 'ব্লেণ্ডেড লারনিং' পদ্ধতি ব্যবহারের জন্য কি কি চ্যালেঞ্জের সম্মুখীন হয়েছেন?
- ৪। আপনার স্কুল কিভাবে টিচার্স ট্রাইনিং প্রদান ও রিসোর্সের ব্যবহারে যে সমস্যা সেগুলোকে মোকাবেলা করেছে?
- ৫। আপনার স্কুলে শিক্ষকদের জন্য টেকনলজির ব্যবহারে (যেমন-কম্পিউটার, ইন্টারনেট) কতটুকু সুযোগ আছে?
- ৬। আপনার মতে, 'ব্লেণ্ডেড লারনিং'-কে শিখনের একটি পদ্ধতি হিসেবে নিতে চাইলে আপনার স্কুলে কি কি সুযোগ সুবিধা থাকতে হবে?

Appendix C

School Observation Checklist:

School Name: _____

Date: _____

I. Training Facilities

- **A. Dedicated Training Room/Space:**

- ☐ Yes
- ☐ No
- Comments: _____

- **B. Availability of Training Materials:**

- ☐ Black/Whiteboard
- ☐ Projector/Screen
- ☐ Markers
- ☐ Other (Specify): _____

- Comments: _____

- **C. Frequency of Training Activities:**

- ☐ Regular (Weekly/Monthly)
- ☐ Occasional
- ☐ Rarely
- Comments: _____

II. Technological Gadgets

- **A. Availability of Computers/Laptops:**

- ☐ Sufficient no. of gadgets for teachers
- ☐ Limited no. of gadgets for teachers
- ☐ None
- Comments: _____

- **B. Internet Connectivity:**

- ☐ Internet access for all teachers
- ☐ Available internet with no access facility for teachers
- ☐ No Internet Access
- Comments: _____

C. Audio-Visual Equipment:

- ☐ Projectors
- ☐ Speakers
- ☐ Smartboards
- ☐ Other (specify)

- Comments:

III. Usability of Resources

● **A. Functionality of Equipment:**

- ☐ All equipment in working order
- ☐ Some equipment is malfunctioning
- Comments:

● **B. Ease of Use:**

- ☐ User-friendly technology
- ☐ Teachers require training to use
- ☐ Technology is too complicated.
- Comments:

● **C. Accessibility of Resources:**

- ☐ Resources easily accessible to teachers
 - ☐ Resources kept in locked storage
 - ☐ Resources are disorganized.
 - Comments:
-

IV. General Observations

- Overall impression of the school's resources for teacher readiness:

-
- Any other relevant observations:
-

বিদ্যালয় পর্যবেক্ষণ চেকলিস্ট:

বিদ্যালয়ের নাম: _____ তারিখ: _____

১. প্রশিক্ষণের সুবিধাসমূহ ক. নির্ধারিত প্রশিক্ষণ কক্ষ/স্থান: ☐ হ্যাঁ ☐ না মন্তব্য:

খ. প্রশিক্ষণ উপকরণের প্রাপ্যতা: ☐ ব্ল্যাক/হোয়াইটবোর্ড ☐ প্রজেক্টর/স্ক্রিন ☐ মার্কার ☐ অন্যান্য (উল্লেখ করুন):

_____ মন্তব্য:

গ. প্রশিক্ষণ কার্যক্রমের হার: ☐ নিয়মিত (সাপ্তাহিক/মাসিক) ☐ মাঝে মাঝে ☐ কদাচিৎ মন্তব্য:

২. প্রযুক্তিগত যন্ত্রপাতি ক. কম্পিউটার/ল্যাপটপের প্রাপ্যতা: ☐ শিক্ষকদের জন্য পর্যাপ্ত সংখ্যক যন্ত্রপাতি ☐ শিক্ষকদের জন্য সীমিত সংখ্যক যন্ত্রপাতি ☐ একটিও নেই মন্তব্য:

খ. ইন্টারনেট সংযোগ: ☐ সকল শিক্ষকের জন্য ইন্টারনেট সুবিধা ☐ ইন্টারনেট আছে কিন্তু শিক্ষকদের ব্যবহারের সুবিধা নেই ☐ ইন্টারনেট সংযোগ নেই মন্তব্য:

গ. অডিও-ভিজুয়াল (শ্রাব্য-দৃশ্য) সরঞ্জাম: ☐ প্রজেক্টর ☐ স্পিকার ☐ স্মার্টবোর্ড ☐ অন্যান্য (উল্লেখ করুন)

_____ মন্তব্য:

৩. সম্পদের ব্যবহারযোগ্যতা ক. সরঞ্জামসমূহের কার্যকারিতা: ☐ সকল সরঞ্জাম সচল আছে ☐ কিছু সরঞ্জাম ত্রুটিপূর্ণ মন্তব্য:

খ. ব্যবহারের সহজলভ্যতা: ☐ ব্যবহারকারীবান্ধব প্রযুক্তি ☐ ব্যবহারের জন্য শিক্ষকদের প্রশিক্ষণ প্রয়োজন ☐ প্রযুক্তিটি অত্যন্ত জটিল মন্তব্য:

গ. সম্পদের সহজপ্রাপ্যতা: ☐ শিক্ষকদের জন্য সম্পদ সহজেই ব্যবহারযোগ্য/প্রাপ্য ☐ সম্পদ তালাবদ্ধ স্টোরেজে রাখা হয়েছে ☐ সম্পদগুলো অগোছালো অবস্থায় আছে মন্তব্য:

ঘ. শিক্ষকদের অভ্যস্ততা: ☐ শিক্ষকরা প্রযুক্তি ব্যবহারে স্বাচ্ছন্দ্যবোধ করেন ☐ শিক্ষকরা প্রযুক্তি ব্যবহারে দ্বিধাগ্রস্ত বলে মনে হয় ☐ উপলব্ধ

প্রযুক্তি ব্যবহারের জন্য শিক্ষকদের দক্ষতার অভাব রয়েছে মন্তব্য:

8. সাধারণ পর্যবেক্ষণ শিক্ষকের প্রস্তুতির জন্য বিদ্যালয়ের সম্পদের উপর সার্বিক মূল্যায়ন:

প্রাসঙ্গিক অন্য কোনো পর্যবেক্ষণ:
