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Blended Learning Experience during COVID-19 in Bangladesh: Rethinking the Barriers in the context of Higher Secondary Level Learners

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Abstract

The blended learning approach played a vital role to continue educational activities during COVID-19 pandemic in Bangladesh. The traditional face to face classroom teaching -learning system was totally disrupted during pandemic time. The educational activities were continued through different online platforms during pandemic time. Online instructions became popular and effective throughout the pandemic. Teaching -learning activities in different educational institutions in Bangladesh experiences manifold barriers at that time. The present paper aimed at rethinking the barriers of blended learning approach during COVID-19 in HSC level learners of Bangladesh. Randomly selected 360 respondents have been surveyed through a semi-structured survey questionnaire. This paper revealed that blended learning approach faced the problem of poor internet connection, challenge in two way communication, financial constraint, difficulties in presenting online presentation, submitting assignment, lack of experience regarding activity through internet, online group works, online apathy, fear in using internet, noisy environment etc. Finally, this study proposed some recommendations to overcome the barriers of blended learning approach in new normal situation in Bangladesh perspective.

Keywords: Blended Learning, Online Education, COVID-19, HSC Learners, Barriers, Bangladesh.

1. Introduction

The face-to-face teaching and learning is seriously disrupted due to COVID-19 pandemic globally. Developing countries started online classes during pandemic through internet and broadcast class lecture on different digital platforms and television channel (Tadesse & Muluye, 2020 and Mustafa, 2020). As a result, the learners could be able to make up their learning loss and stay connected with the system. The developing and underdeveloped countries faced difficulties because of their limited resources and access constraints to technology-enabled education system. But some of these countries, especially Bangladesh could minimize the problem and continue education through online. Some of the universities, colleges and schools in Bangladesh carried out their educational activities through internet though students were unable connect to the online activities due to some barriers. In this post-pandemic and new normal situation, the education system takes a new form in its delivery mode, conducting examination, assessment and publication of results. The challenging force of COVID-19 has necessitated the demand for blended learning approach in the field of education. There are various challenges that impede the provision of face-to-face education in Bangladesh. The challenges encompass a backlog of sessions, a scarcity of seats at colleges, the absence of a student loan system for educational purposes, and the imperative for students to balance employment and school concurrently.

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Literature Review

According to Arefin et al. (2023), the primary barriers to the effective adoption of online education are insufficient teacher preparation, unfavorable socioeconomic circumstances, sluggish internet speeds, a lack of ICT equipment, a lack of technology exposure among students, and power outages. The creation of an ICT framework, the availability of inexpensive or free internet for educational purposes for teachers and students, the encouragement of non-traditional forms of formal education, the scheduling of instructional time on radio and television, the availability of sufficient IT resources, the execution of learning management system promotion initiatives, and other elements can all make a substantial contribution to the creation of the ideal environment for online learning. Lastly, the authors proposed a thorough structure for formal teaching-learning at different educational levels to achieve the Sustainable Development Goals (SDG) during crises like as the COVID-19 pandemic.

Khan. M. E. I. (2021) pointed about Bangladesh's utilization of an online learning environment during the COVID-19 epidemic. During COVID-19, studies on Bangladesh's current educational environment were conducted. The writers also covered the benefits and downsides of a digital education system, as well as Bangladesh's digital education methods. Furthermore, it has been documented that the COVID-19 pandemic in Bangladesh had an impact on students' mental health. According to Jashim & Sajid (2020), the primary barriers to low participation in online classes in rural and remote places, particularly among individuals from low-income families, are inadequate or nonexistent internet connections and expensive mobile data.

A study on the application of flipped instruction in Bangladesh and Japan was carried out by Mustary (2019). She demonstrates that 75% of Bangladeshi educators believe that the deficiency in computer technology training among educators has led to a lack of advancement in flipped learning. Furthermore, ninety-five percent of Bangladeshi students said that the absence of resources like electricity and computers is a major reason for the region's sluggish progress in blended learning.

Aldosemani et al. (2018) reported that among the difficulties teachers face while implementing blended learning are inadequate promotion incentives, language hurdles, and a lack of faculty training and support. For example, it was mentioned that the language texts used in the LMS in the Saudi context are presented in English, making it difficult for the faculty members to communicate academically with their students and colleagues because English is not their first or second language. Additionally, it was discovered that the nation's technological infrastructures—such as a dearth of computers, unstable LMS software, and internet connections prohibit blended learning.

Kurucay & Inan (2016) discovered that less interpersonal connection was the cause of student dropout. According to this study, among Saudi Arabian female college instructors, blended learning was less acceptable due to inadequate institutional empowerment, subpar strategic evaluation strategies, and a lack of support from the faculty. According to Suprabha & Subramonian (2015), students may experience the following issues with blended learning: issues with technology, learner accountability in self-managed learning, inadequate time management skills, and less in-person instruction which reduces opportunities for communication and makes students feel alone.

Many obstacles to blended learning were outlined by Sayed & Baker (2014), who asserted that e-learning barriers are a key component of blended learning and provided solutions. The lack of infrastructure, aversion to technology and low engagement, e-learning apathy, assessment difficulties, time-consuming student advising and course scheduling, mismatched e-learning courseware, limited language proficiency, difficulties developing concepts and experience skills, inadequate career planning and teacher industry links, etc. are just a few of the challenges the authors listed for implementing blended learning.

Moskal et al. (2013) state that in order to support teachers and students, a solid infrastructure is needed. The main obstacles include inadequate electrical supplies, a poor internet connection, and a dearth of online learning resources. He also recommended that successful blended learning implementation require a robust network and IT infrastructure as well as highly skilled technical staff.

Objectives of the study

The objectives of the study were-
- to explain the perception of learners about blended learning during COVID-19 pandemic; and
- to explore the barriers to blended learning.

2. Materials and Methods

A triangulation of quantitative and qualitative methods were used in this study. Different colleges of Chittagong, Khulna, Rangpur and Sylhet divisions were the area of the study. The learners of Higher Secondary Certificate (HSC) programs of different colleges of Chittagong, Khulna, Rangpur and Sylhet divisions are the population of the study. Random sampling procedure for quantitative and purposive sampling procedure for qualitative method has been followed. Sample size of the study was 360.This study has employed survey techniques for collecting primary data from the respondents. A semi-structured survey questionnaire has been used for this. After conducting a pilot study, the survey questionnaire was formulated. All concerned topic have been taken into account during piloting. In the survey questionnaire, every concern identified in the pilot study has been thoroughly considered. The responses were received from the respondents in 5 points Likert Scale where 5 reflects extremely perceived, 4 reflects highly perceived, 3 reflects moderately perceived, 2 reflects somewhat perceived and 1 reflect not perceived. All types of data have been collected from August 2022 to November 2022.The data have been analyzed by Statistical Package for Social Science (SPSS).

Measurement scale

Item	5	4	3	2	1
Perception*	EP	HP	MP	SP	NP
Barrier**	EB	HB	MB	LB	NB

*5= Extremely perceived; 4= Highly perceived; 3= Moderately perceived; 2=Somewhat perceived and 1=Not perceived.

**5= Extreme barrier; 4=Higher barrier; 3= Moderate barrier; 2=Little barrier and 1=No barrier.

3. Results and Discussion

Perceptions about blended learning during COVID-19

Majority of the respondents mentioned that they find blended learning challenging. The perceptions of the learners are presented in mean and std. deviation (Table 1). Twenty items were included to collect the learners perceptions regarding blended learning during COVID-19. Data were collected through a semi-structured survey questionnaire for the learners.

Table 1: Perceptions about blended learning

SL. No	Statements	Mean	Std. Deviation
01	Blended learning system do not work easily due to internet connection	3.3833	1.45604
02	Create misunderstanding between student and teacher due to interruption in internet connection	3.2306	1.61285
03	Create challenges in two way interaction between student and teacher due to weak internet connection	3.5167	1.38626
04	Huge internet data is needed	3.4889	1.53143
05	Financial problem to purchase internet data	3.5694	1.52259
06	Mobile data is slower	3.1694	1.39304
07	Broadband (Wifi) data is slower	3.1528	1.41677
08	Difficulty to present lesson due to poor internet connection	3.2111	1.44727
09	Time consuming in arranging online activity	3.5500	1.53972

SL. No	Statements	Mean	Std. Deviation
10.	Familial issue is concerned	3.4139	1.42337
11	Lack of experience about study through internet	3.7278	1.51255
12	Lack of experience in group work through internet	3.8639	1.41454
13	Lack of previous experience in writing assignment	3.6528	1.37385
14	Lack of previous experience in making online presentation	3.8278	1.38568
15	Fear in submitting assignment through online	3.3583	1.44613
16	Apathy in submitting assignment through email	3.5611	1.49153
17	Miss deadline for submitting assignment due to apathy	3.3694	1.41605
18	Delay in submitting assignment due to internet connection	3.3028	1.39438
19	Noisy environment is problem to attend online classes	3.1889	1.39753
20	Loss of mental steadiness due to lack of f2f conversation	3.4750	1.41005

Source: Field Study,2022

The above table (Table 1) shows the perceptions of the learners regarding blended learning during COVID 19. Learners responses regarding their perceptions of blended learning is presented here in terms of mean and Std Deviation. Twenty items were included to collect the perceptions of the learners regarding blended learning during COVID 19. The study reveals that the mean value of every item falls between 3.1528 to 3.8278, that express moderate perceptions of the learner regarding blended learning in COVID 19. The learners perceive a unstable internet connection, interruption and buffering of internet in online classes, financial constraints, lack of experience in study online, apathy in online, mindset.

Barriers in blended learning

Table 2: Barriers in blended learning

SL. No	Statement	Mean	Std. Deviation
01	Slower broadband (WIFI) data	3.1528	1.41677
02	Difficulty in presenting lesson	3.2111	1.44727
03	Time consuming activity	3.5500	1.53972
04	Lack of experience regarding activity through internet	3.7278	1.51255
05	Lack of experience in group work through internet	3.8639	1.41454
06	Lack of experience in writing assignment	3.6528	1.37385
07	Lack of experience in making online presentation	3.8278	1.38568
08	Fear in submitting assignment through online	3.3583	1.44613
09	Apathy in submitting assignment through email	3.5611	1.49153
10	Missing deadline due to apathy	3.7694	1.41605
11	Delay in submitting assignment	3.3028	1.39438
12	Noisy environment	3.1889	1.39753
13	Loss of mental steadiness	3.4750	1.41005
14	Involvement of financial issue	3.4139	1.42337

Source: Field Study,2022

The above table (Table 2) reflects the learners' experiences regarding the barriers of blended or online learning during COVID-19. Their responses regarding the barriers of blended learning is presented in terms of mean and Std. Deviation. Fourteen items were included to collect the learners experiences regarding the barriers of blended learning during COVID-19. The study reveals that although the mean value of every item falls between 3.1528 to 3.8639, learners' experiences regarding the barriers of blended learning were moderate. The study also shows that the learners faced moderate barriers in blended learning while the mean value of all items lays between 3.1528 (slower broadband data) to 3.8639 (lack of experiences in group work through internet). The learners face a lack of experience with the internet, group work using the internet, writing assignments, creating online presentations, fear of submitting assignments, apathy, noisy surroundings, mental stability, and so on. They also face challenges due to weak internet, volume of data, financial

difficulties to purchase data, slow mobile and Wifi data, difficulties in presenting lessons, time consumption, and financial issues. The majority of respondents took part in the blended learning process at COVID-19. They used a tablet, laptop, desktop, and smartphone for the blended learning. The majority of respondents possessed personal devices, but some also utilized those of their family members and other close relatives to continue their study. Results of the study showed that respondents believed that blended learning was difficult due to lack of prior experience utilizing the internet and other digital devices and a fear of the internet.

The objectives of the study were to explain and explore learners perceptions and the barriers of the blended learning during COVID -19. Data collected through survey questionnaire reflect that the perceptions of the learners of HSC level regarding using blended learning were moderate (mean value fall from 3.1528 to 3.8639) and the barriers while using blended learning fall from 3.1528 to 3.8639 that reflects that the learners face less barriers while participating in a online class. The COVID -19 shut down the academic activities all on a sudden. The use of online classes in Bangladesh was new during pandemic time the data generated from this study demonstrates that the learners were blame for their slow internet issues when using the blended approach for study purposes. The respondents used the broadband (Wifi) data more slowly while using it to access their online tutorial classes, as shown by the mean value of 3.1528 and standard deviation value of 1.41677(Table 2). The majority of the respondents indicated that blended learning involves financial issues to purchase data in order to attend the online classes. According to this study, the majority of respondents mentioned they have no prior experience with blended learning over the internet. Majority of the learners do not have prior experience in making online presentation before pandemic. Despite some barriers, blended learning practice helped learners to continue their learning during pandemic time. To overcome the barriers in the context of HSC Level in Bangladesh context some way forwards are provided in the recommendation section.

The present study recommended the following issues for the effective implementation of blended learning among the learners of Higher Secondary (HSC) level in Bangladesh. The University Grants Commission (UGC) also has already launched a blended learning policy to coordinate onsite and online education in the post-pandemic era (TBS Report, 2021). Therefore, the Ministry of Education (MoE) and the Directorate of Secondary & Higher Secondary Education (DSHE) should take such initiative and policy to implement an effective blended learning approach at HSC level of education in Bangladesh. Finally, the contribution of this research paper could be following issues for the effective implementation of blended learning at the HSC level of education in Bangladesh.

- Formulate an innovative approach for blended learning in "New Normal Pedagogy" for HSC level of education;
- Blended approach is the demand of the time. The University Grants Commission (UGC) has already prepared a policy for blended learning in higher education in Bangladesh. So, the educators and teacher-educators should rethink the canon to continue the mainstream study specifically for the HSC level.
- In Digital Bangladesh context, blended approach and online learning should be incorporated in the curriculum in order to make the learners confident to face the challenges of the 21st Century. This is high time to include blended approach in the curriculum because new curriculum has already been designed and applied in secondary level of education.
- Formulate policy for cost effective blended learning approach for the learners of HSC level in all the educational institutions;
- Generate user friendly Learning Management System (LMS) to ensure Quality and Sustainable Education (SDG 4) through blended learning;
- Enable teachers to ensure learners autonomy through blended learning to achieve the desired learning outcomes.
- Ensure comprehensive training for the teachers for effective implementation of blended learning approach.

- ▪ Raise awareness among all the stakeholders regarding the effective use of blended learning approach in all the educational institutions in Bangladesh.

4. Conclusion

The COVID-19 pandemic had a significant impact on the economy, health, business, education, mental health and way of life. Due to the seclusion and staying-at-home rules, the education sector was severely affected by the pandemic. To prevent the spread of the Corona virus, educational institutions around the globe had been closed. Bangladesh government launched a number of steps to continue educational programs throughout the pandemic. The blended method was used during the pandemic time to carry on the educational programs at different institutions. However, the present study was specifically focused on the learners of HSC level of education. Studies could be conducted on the Secondary and Tertiary level learners. Furthermore, non-government educational and development organizations should work together with the government to implement blended approach in the new normal situation in Bangladesh.

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