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## Implementing Blended Learning in Bangladeshi Universities: Challenges and Opportunities from Student Perspectives

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#### **ABSTRACT**

Blended education has been used worldwide for the last two decades as an alternative to full online education but not in Bangladesh. There was never any significant attempt to investigate people's perception or experience of blended learning in Bangladesh. Therefore, this study tries to investigate the people's experiences with this new method, a three-month-long blended course in English Writing Skill was offered at a private university in Bangladesh, where eighteen students registered for the course. After completing the course, an open-ended interview protocol was used to collect primary data from 11 students. This qualitative research is based on an interview with 11 samples and other comments posted on Google classroom and Facebook. The interview contained 8 open-ended questions to elicit their experiences with the blended learning method, a new method for them on the one hand, and both face-to-face and online education. We also investigated the 4 essay scores of these 11 respondents to check whether their performance improved due to peer and teacher feedback on those essays in the blog created and used for posting student essays. The majority of respondents have a highly positive opinion about the blended method for its positive impacts such as peer interaction and peer support, teacher feedback, as is evident from their improved scores in the successive essays, and other advantages such as learning varieties, flexibility and self-paced learning and quality of education. However, they mention a number of challenges in its implementation. It seems that blended courses will effectively reduce session backlog and cost of higher education, increase student-student and student-teacher interaction and ensure flexibility and quality of higher education in comparison with face-to-face and online education. This study is important for Bangladeshi higher education institutions because it is expected to enlighten policymakers about the importance of blended education.

#### 1. Introduction

The Bangladeshi education system has used the traditional face-to-face teaching method for ages. But the Covid-19 pandemic from March 2020 worldwide has put education delivery at all levels at stake. The government shut down in-person teaching-learning from primary to higher education levels for at least 18 months. Instruction was given to introduce online education at all levels. But there were many strong challenges, including technological and perceptional issues to its successful implementation. So, the online mode of education could not become effective.

Again it is not also the fact that face-to-face higher education in Bangladesh has no challenges. Rather it is burdened with a number of practical constraints, such as the crisis of seats in good universities, session backlog due to political unrest and violence on the campus, lack of higher education loans for students of universities, and high tuition fees in private universities in Bangladesh. In contrast to the challenges, there are also some redeeming features, such as the development of IT sectors, a huge increase in the number of mobile users, especially adult learners, and students emerging IT skills in recent times in Bangladesh. This conducive scenario is expected to facilitate implementing the blended method, a novel method for Bangladesh. So, this study will investigate the

prospects of the blended method for higher education in Bangladesh. This is qualitative research depending on the data from multiple sources such as interviews, student comments posted on two online platforms, the Facebook group, and Google Classroom Discussion Board created to aid the delivery of a proposed blended course in English Writing skills at the research site of the article. It is expected that this method will help to minimize the challenges of both online and face-to-face education. Thus this study will significantly contribute to the higher education sector of Bangladesh, suggesting this new method for Bangladeshi universities.

To go deep into the research problem of this study, it is important to study the background and status of online and face-to-face education, against which we suggest the blended method. Bangladesh has no long and good history of online education. Hence, the universities had little or no preparation for any emergency to deliver online education during Covid-19 imposed lockdown.

The implementation of online education in Bangladesh during the covid-19 lockdown has not been satisfactory. Starting online classes at universities has stood out as a daunting task in Bangladesh, where there is no previous experience in teaching online. The 46 public universities, with an enrolment of some 600,000 students, have not offered online or other distance education, except for Shahjalal University of Science and Technology (SUST) in Sylhet and Bangabandhu Digital University (Mohiuddin, 2020, April 23). Most universities and colleges are also not equipped with the hardware and internet connection to offer lessons online (Ahmed, 2020, April 28). The number of private universities taking up this makeshift online delivery system during Covid-19 was negligible. Only one-fourth out of a total of around 90 running private universities have started online teaching during the first couple of months of lockdown through platforms like Google Meet, Zoom, or Discord(Ahmed, 2020, April 28). Poor or no internet connection and costly mobile data are crucial reasons for low participation in online classes in rural areas, especially for students from poor economic backgrounds(Jashim & Sajid,2020).

Besides the digital divide, the perception of people in Bangladesh about online education is also not positive. The negative perception about full online education in Bangladesh stems from several reasons, such as no direct contact with teachers, low quality of education, cheating in the examinations, and so on. As there has been no practice of and preparation for online education by the Bangladeshi universities, switching to this mode of education during the emergency was not easy. However, there are some conducive factors as well in this area.

In contrast to this dismal scenario of the logistic and technological divide, Bangladesh can boast some

redeeming solid features that offer a lot of potential for online and blended education. Bangladesh is now part of the information super-highway network, which has added a renewed speed to the developing Internet and other digital communications. This widespread internet connectivity can offer good potential for online and blended education in Bangladesh.

Although some research on using the blended method in higher education, most were centred on the teachers' and students' satisfaction with blended learning(Chin, 2015; Herloa, 2015). Some dealt with students' progress, achievement, and attainment of teamwork and cooperative skills (Bunnell, 2017; Nasser, 2020; Margolis, Porter,& Pitterle, 2017). Some dealt with problems and challenges the teachers and students faced in implementing blended learning (Suprabha & Subramonian, 2015; Kurucay & Inan, 2016). In Bangladesh, though there are a good number of research on e-learning and distance learning and the use of technology in education (Mustary, 2019; Joher, 2018), the number of research on blended learning in the Bangladeshi higher education sector or on the efficacy and application of blended learning in the said area are few. Whatever research there is, they mainly investigated problems, challenges, and solutions to composite learning mode. They did not study the experiences of the students and teachers with the blended instruction model.

Our research will investigate the prospects of blended learning in Bangladeshi higher education. We assume that in the backdrop of the prevailing challenges in the implementation of online education in Bangladeshi universities with the specific recent experiences during the Covid 19 lockdown, the blended method has a lot of potential for the higher education sector considering the redeeming factors such as the expansion of ICT and rising ICT literacy among the young generation of Bangladesh. We also assume that the nagging problem of seat and accommodation crisis in public universities, session backlog as a result of political and student unrest in public universities, and the high cost of tuition fees in private universities, the prospects for blended education in the higher education sector for Bangladesh are also high, So, our research is about the opinions regarding the three methods of education, i.e., face-to-face, online and blended of the same group of samples in terms of themes such as flexibility, interaction, quality of education, teacher feedback, learning varieties and several constraints such as infrastructural inadequacy and digital divide in its implementation in Bangladesh.

In the light of the assumptions stated above, we have formed our research objectives. So, our research objectives are to

1) Investigate the advantages and challenges of online education in Bangladeshi higher education.

- Investigate the advantages and challenges of face-toface education in Bangladeshi higher education.
- 3) Investigate blended education's impacts, advantages, and challenges in Bangladeshi higher education.
- 4) Investigate the blended method's prospects in Bangladesh's higher education.

This study is timely as it could provide more insights into students' perceptions about blended learning and, therefore, will create a better understanding among the policy-makers, teachers and students about implementing blended learning in the curriculum. As a new and similarly effective mode of education like fully online and face-to-face education, this mode of education will help address the problems related to online and face-to-face education. Thus, this study will significantly impact higher education delivery and the education sector of Bangladesh in general.

Based on the challenges and problems of online and face-to-face education in Bangladesh, as discussed in the introduction and the assumption about the potential of blended learning, the following research questions have been formulated.

- 1) What are the advantages and disadvantages of online education?
- What are the advantages and disadvantages of faceto-face education?
- 3) What are the advantages and disadvantages of the blended learning method?
- 4) What are the prospects of blended learning in the Bangladeshi higher education system?

#### 2. Literature Review

Having discussed the challenges of online education in Bangladesh, it is important to look at the challenges of face-to-face higher education in Bangladesh, both the opportunities and challenges of blended education in general and the Bangladesh context in particular in the literature review section. Then in the methodology section, we will discuss the data collection methods, tools, types of data and data analysis process. Then in the results section, the main findings will be presented according to thematic categories. In the discussion section, our research findings will be compared and contrasted with the previous research to identify the novelty of our findings and, finally, the implications of this research to this field of study.

Face-to-face higher education in Bangladesh is also constrained by several problems. The problems are session backlog, the crisis of seats in public universities, no student loan system for education and the necessity of jobs and education simultaneously by students.

A crucial problem is a backlog in Bangladeshi public universities resulting from political unrest on campus and delay in results publication. Students of the public universities with session backlogs need seven or eight years to do their four-year graduate program. In addition, there is also a crisis of seats in public higher education institutions. Bangladeshi public universities cannot accommodate all the students who pass Higher Secondary Examinations (HSC) every year. Private universities are not viable for those who cannot afford the high tuition fees.

In Bangladesh, tuition fees at private universities are high, which many parents cannot afford. As there is also no student loan system for the students, they need to manage their tuition fees and other expenses of education. Only they can handle this expense if they can do a part-time job. So, it is assumed that blended learning is expected to fulfil their dream of higher education, keeping their income and employment intact.

#### 2.1 Need for Blended Education

In the backdrop of these challenges of face-to-face and online higher education, the blended method can be a good option for millions of Bangladeshi youths. Having considered the challenges of fully online education, such as the negative perception of common people about online education, the helplessness of Bangladeshi universities during the Covid-19 pandemic, the slow move to the digitalization of higher education and the digital divide in implementing complete online education as well as the prospects such as connectivity with the Information Super Highway and the expansion of information and computer technology in Bangladesh and the success story of Bangladesh Open University, it can be said that blended learning poses a lot of potentials for Bangladeshi higher education sector. So, our study assumes that the blended method will be an effective alternative to online and face-to-face modes of education in the Bangladeshi higher education sector.

Moreover, blended learning has never been used at a program level in Bangladeshi universities. It is expected that blended learning will open a new avenue of prospects for Bangladeshi universities in terms of achievement of student learning outcomes and satisfaction with education. So, in our study, we have designed a blended EFL writing course to be taught to a group of university students to investigate their level of satisfaction with the course.

It is also expected that in developing countries like Bangladesh, the scope for higher education should not be confined to only those who can afford it only full time but open to all who want to pursue it. So, to make higher education accessible to those doing part-time jobs and part-time education, blended learning may be a viable option. Considering the suggestions it will make, it can be said that this study will positively impact the higher education sector of Bangladesh by recommending blended learning as a viable option for higher education to those who would otherwise be incapable of pursuing it

#### 2.2 What is Blended Learning?

There are a good number of definitions of Blended Learning. The Website of the International Blended Learning Association defines Blended learning is an educational approach which integrates face-to-face classroom practices with online and mobile delivery methods. It aims to provide the learner with a wellplanned, managed, and well-structured teacherfacilitated interactive learning environment, where highquality content, activities, and experiences can be customized to learner needs and preferences, unrestricted by time and location (Website of International Blended Learning Association, iabl.org). Creating a harmonious unity between face-to-face and online teaching in a blended course is essential. The balance between online and face-to-face learning depends on factors such as 'educational objectives, student features, teacher skills, and online resources.' Thai et al. (2017) used a 50-50 approach, implying that half of the course is taught in person and the other half online.

#### 2.3 Previous Studies on Blended Learning

There are several research (Bunnell, 2017); Shand & Glassett (2017); Nasser (2020); Margolis, Porter & Pitterle (2017); Herloa (2015) that highlight the effectiveness of blended learning as a 21st-century method. Many of them have been very significant and explored this approach's various aspects. The positive impacts found in these researches are an increase in students' learning outcomes, higher order learning, student satisfaction, learning flexibility, student-teacher interaction and student-student interaction. On the other hand, some literature mentions the various problems and challenges such as lack of interest, training and IT skills among teachers, insufficient logistic support, including internet access, the issue of plagiarism and so on in implementing blended learning methods. The following sections will discuss the research done so far concerning blended learning.

## 2.4 Learning Verities and Higher Order Learning

Bunnell's (2017) study found positive impacts of blended learning on delivering higher-order thinking skills, creativity, evaluation, and critical thinking. Shand & Glassett, 2017) maintained that blended learning provides students with the necessary socialization skills, which gives the feeling that they are a part of an entire learning community. Moreover, the

online portion of the course was found to be productive and engaging for students at any time. While the interaction between the teacher and the student was emphasized, independence was also focused on peer-to-peer interaction (Shand & Glassett, 2017).

Nasser's (2020) study investigating the integration of blended learning in the community college setting identified five benefits: accessibility, visualization, motivation, social skills and critical thinking. Further, Margolis, Porter, and Pitterle's (2017) study investigating students' attitudes about blended learning in a pharmacy course found the following positive outcomes of the blended course such as timing flexibility, teacher guidance and classroom activities that were translatable to the 21st century real-world issues(Margolis, Porter & Pitterle, 2017).

#### 2.5 Student Satisfaction

A PhD study by Chin, Pei-H. (2015) demonstrates the Asian students' high success rate and satisfaction with blended learning. However, an important problem of this study is that the participants were from a particular region. Secondly, it analysed one dimension, i.e. Confucianism, in a cultural framework to be applied to blended learning research. Herloa (2015) discovered greater student satisfaction with a blended learning setting with teachers engaging and supporting learners during each stage and with every program element. The researcher found a positive impact of blended learning on student-centred learning and identified the following advantages of a blended environment: greater students' self-efficacy, student curiosity and intrinsic motivation (Herloa, 2015).

#### 2.6 Flexibility

Researchers often cite increased flexibility as one of the notable advantages of the blended learning platform (Fogal, Graham III, & Lavigne, 2014; Osgerby, 2013). Other advantages are the increase in the number of course offerings, flexibility in timing for teachers and students, and greater access for students in all places (Sarwar et al., 2015). Tarvyd's,(2019) qualitative study reveals the following findings: flexible learning schedule, alternative pathway for education, supportive, diverse learning styles, extended learning supports, and multiple motivations to enter a blended learning program.

Enrichsen et al. (2017) showed that students get satisfaction from the course when they feel there is flexibility, instructor involvement, interactive communication and different assignments in a course. Van Laer and Elen (2017) emphasized the personalized learning style in blended learning environments and stated how these factors impact student satisfaction with their learning experience.

#### 2.7 Student-teacher Interaction

Kurucay and Inan (2017) mentioned three types of interactions in blended learning environments: learner to content, learner to the instructor, and learner to learner. These interactions are crucial to the students' success and satisfaction in blended learning environments. Some studies indicated that learner-to-learner interaction would improve the students' blended learning experience and, in the long run, raise their satisfaction and achievement in the course (Kurucay & Inan, 2017). Garrison (2017) believed that faculty contact appears to have the most significant impact on students' satisfaction since location and space appear to be reduced when teachers are responsive (Garrison, 2017).

A study by Rizvi N.F. et al. (2017) in Pakistan shows that Pakistani students expect teachers to be available 24/7, which could be possible through blended learning. The study recommended that universities be sincere about faculty development and start relevant programs to develop teaching capacity in blended learning.

#### 2.8 Students Interaction

Research has shown that blended learning environments can increase student-to-student interactions, allowing students to take a much more proactive role in the learning process (Sorbie, 2015). His qualitative study, following the constructivist approach, found that blended learning caters to students' learning styles, promotes collaboration among learners, and engages students and instructors in discussion and practical learning (Sorbie, 2015).

Dumont and Raggo (2018) stated that teachers have noticed higher student enrollment levels and satisfaction in a blended course. They found that students perceived positive academic progress due to the interaction in blended mode. Blended learning boosts students' strong sense of cooperation (Kintu et al., 2017). Students develop a sense of community in a blended course (Ebadi & Ghuchi, 2018).

#### 2.9 Quality of Education

According to Schindel et al. (2013), blended learning caters to the needs of the millennial generation as it is more practical and applies a medley of teaching and learning techniques that student learns differently hence, blended learning seems to be a logical approach for the 21st century and can fulfil the demands of the future regarding skills and educational preparedness (Robles, 2012). In a century when everything revolves around technological advancements, improving a course through technology may help achieve an effective teaching and learning environment. Vaughan, et al. (2017) have implied that blended learning enhances student learning and involvement, essentially better performance. As

newer technologies begin to play a role in education in blended learning, the learning experience seems better and more practical for learners since the learning objectives are fulfilled through enhanced learning skills with more focus on reflective experiences (Wornyo, Klu &Hlaviso, 2018).

#### 2.10 Challenges of Blended Learning

Some studies discuss the frustrating picture of blended learning for students. Suprabha and Subramonian (2015) noted that learners might face the following problems concerning blended learning such as technology-related problems, self-managed learning in terms of learner accountability, insufficient time management capabilities, reduced physical classroom instruction diminishing the chances for communication, thus leading to a sense of loneliness among the learners.

Research indicates dropout rates are higher among students doing blended learning courses compared to their face-to-face counterparts (Deschacht & Goeman, 2015). Kurucay and Inan (2016) found that student dropout was due to a lack of personal interaction. This study indicated that lack of faculty support, poor strategic evaluation plans, and insufficient empowerment at the institutional level lowered the acceptability of blended learning among Saudi Arabian female college teachers.

## 2.11 Obstacles to the Implementations of Blended Learning in Bangladesh

It is a fact that for the implementation of blended learning in the education system, it is essential to use technology in education at every level. However, for developing countries like Bangladesh, integrating technology into the education system is dependent upon certain preconditions, such as rich infrastructure, a reliable power supply, good technical knowledge, and most importantly, a change in attitude and adequate funding for training programs. Hence, insufficient logistic support and inertia to change typical mindsets are the main obstacles to blended learning in Bangladesh. Blended learning is quite a new idea in Bangladesh. Despite the effectiveness and advantages of blended learning in education delivery, blended learning may not be heartily accepted by most of the Higher Education Institutions in Bangladesh. To some extent, its failure can be attributed to the resistance of teachers to the online teaching system and the lack of knowledge in new innovative pedagogies.

Currently, most teachers at Higher Education Institutions in Bangladesh have limited access to online tools for their teaching. In most cases, teachers' online activities are limited to only posting their teaching materials, such as lecture notes on online platforms and submitting online grades to students. Currently, most teachers and students in Bangladesh have problems using

technology in the classroom, including slow internet connection, system crashes and hardware issues. Moreover, frequent electric power failure is another problem that makes the government's digitalisation work more challenging (Khalid et al., 2011).

#### 2.12 Studies on E-learning and Blended Learning in Bangladesh

There are a number of studies on blended learning in Bangladesh. Mustary (2019) conducted a study on the use of flipped instruction in Bangladesh and Japan. She shows that 75% of teachers in Bangladesh opine that the lack of teachers' training in computer technology has contributed to the lack of improved flipped education. In addition, 95% of students in Bangladesh stated that the lack of facilities such as computers and electricity are the important factors that lead to the slow growth of blended education in the region. In this study, 85% of Bangladeshi teachers suggested that the government should financially support blended education. 86% of Bangladeshi students suggested that government should provide computers to each student in rural or urban areas. The remaining 14% of Bangladeshi students suggest that the government should change the school curriculum where students can study computers from nursery schools to adopt flipped learning(Mustary, 2019) effectively.

Jony, Sadekur and Yousuf(2017)show how a wikibased reflection method following a regular in-person classroom teaching-learning develops deeper level thinking of students in higher education. They show that this method could be used as a blended learning model to promote reflective and critical thinking.

Chowdhury's (2020) study stresses that by applying the blended learning tools, universities in Bangladesh can significantly improve the quality of education, and all stakeholders can accept the cost-reduction of higher education. The writer also presented some practical solutions, such as how to design a blended learning program and overcome the impediments to the successful conduct of blended learning with the aid of technology.

Joher's (2018) study finds mixed attitudes to online mode among the samples. It states that, despite the need for the online class, participants do not like to say goodbye to face-to-face instruction. They prefer face-to-face instruction to an online class. However, the study indicates that the implementation of online education would help learners to achieve higher education and cut down the number of drop-outs from higher studies in Bangladesh. It also suggests that blended learning would benefit the organizations where these people doing blended learning mode are working (Joher, 2018).

Our study is important for the fact that there is no study so far on the implementation of the blended method

at a full course level in the university context. So, this study is expected to have a significant impact on the higher education sector in Bangladesh in the backdrop of the recent Covid 19 pandemic and the recent decision of the University Grants Commission of Bangladesh to float a blended learning method for universities.

#### 3. Method

This qualitative research is used to "understand the meaning that individuals or groups ascribe to a social or human problem" (Creswell, 2013, p. 3) in their original setting, establishing themes or patterns to reveal data. Therefore, the researchers use guided questions leading to semi-structured, open-ended conversations to gather data (Yin, 2018). Data analysis identifies significant but common statements and themes to understand the gist of the data. The researcher reveals significant statements through the research and narrates the meaning of the main themes spotted in the data (Creswell & Poth, 2018). The study was conducted from data collected through interviews with open-ended questions and other qualitative document analyses. If there was any discrepancy among these data sources, the researchers asked the participant/s further questions in the next meeting to resolve the divergences.

#### 3.1 Context of the Study

To investigate the participants' experience with blended learning, a twelve-week English Writing Skill development course was designed and offered at the English Department of a private university in Bangladesh. The course was transformed into a blended course following a sample blended English Writing course. The twelve-week time was selected for the main reason that the intended contents were appropriate to be covered within this time. At the start of each week (on Sundays), a one- and half-hour face-to-face class was held. That is, 18 hours were assigned to the face-to-face teaching during the whole period of the course. The module was delivered using a Moodle-based learning management system, i.e. Google Classroom and a student blog. For creating the blog, Wix, a free hosted workspace which allows collaborative editing of pages and files, was used (http:// Wix (www.wix.com)). This platform is also easy to access, which is very important in our learning context.

Students could post their essays on the blog, where their peers and teachers could give feedback. Students could edit and correct their essays by incorporating this feedback from teachers and peers. Each student had to write 4 essays on the blog. These essays were assessed and given scores. Each student's performance in the essay showed continuous progress as their scores increased in successive essays. The participants were already familiar with face-to-face and online methods of education done

during the Covid-19 pandemic. As the blended method was new to them, a blended course for writing skills was offered to familiarize them with the new method for the first time.

#### 3.2 Instruments

We used a number of data collection tools for this study. All the data were of primary type. We collected data from interviews, and opinions about the three methods of education, i.e. online, face-to-face and blended methods which they expressed on Facebook and the Google Classroom Discussion Board. For data triangulation purposes, comments and opinions of the samples from two other sources, Facebook and Google Classroom, were also analyzed. This study uses 33 excerpts from the interview, 6 excerpts from Google Classroom and 4 excerpts from Facebook. That is, for data we depended on four sources, i.e. interviews, Facebook comments and Google Classroom comments analysis We also depended on the essay scores of 11 respondents.

However, the maximum is, 70% of data came from one source, face-to-face interviews with 11 samples by using open-ended questions. We developed the interview questions. In this approach asking all participants systematically minimizes the interviewer's influence and subjective judgments (Yıldırım & Şimşek, 2013). The open-ended questions were used to elicit their views about online education, face-to-face education and blended education The interviews were held after they had completed the blended course. Though 18 students registered for the course, 11 of them were selected for the interview because these 11 students attended all the classes regularly and hence, they were supposed to be able to provide the maximum data for this study. Opinions of the samples posted in the Google Classroom and Facebook group created for the experimental blended course in English Writing skills were also analyzed following the thematic analysis. So, for data, we did not depend on only interviews.

#### 3.3 Data Collection Procedures

The questions posted in the Google Classroom centre around the three types of education, i.e. face-to-face education, online education and blended education. They were motivated to write as free-handedly as they could about these three broad issues in the Google classroom. The open-ended interviews for each participant required about 20-30 minutes on average. The interviews were held at the research site at a convenient time decided through discussion with the samples. The interviews were also recorded with the permission of the samples. They were transcribed verbatim later on.

#### 3.4 Data Analysis

In this study, the answers given for each question were first examined and similar statements were combined and coded. For the Google Classroom and Facebook postings, a similar method was followed. The data obtained were coded manually by the researchers. We used the open coding and axial coding method as part of the coding process as suggested by Saldana(2015). Initially, 25 codes were created from the interviews and Google classroom and Facebook posts. While coding the data, the conceptual structure of the literature was determined and these 25 codes were reduced to 16 codes keeping many previous codes. These 16 codes were combined and six themes were created by identifying the common patterns. By using the tactical method of merging and combining the codes, we created the overarching themes, which are six in total. As the last step, the resulting codes and themes were explained and the findings were interpreted.

#### 3.5 Validity and Reliability

In qualitative research, the validity and reliability of the studies are met with the criteria of internal validity (credibility), external validity (transferability), internal reliability (consistency) and external reliability (verifiability) (Shenton, 2004; Yıldırım & Şimşek, 2013). Data collection, data analysis and interpretation process are given in detail for the internal validity of the research. The findings of the research for external validity were interpreted together with the previous research results and similarities and differences were revealed. Direct citations of the participants were included in interpreting the data for the internal reliability of the research.

#### 3.6 Limitations of the Study

The participants selected for the study are 11 students of a university doing the blended course. The study is based on the experiences of a group of completely new students doing the blended course with no previous experience in this method of learning. The current study does not include the respondents or another researcher in analyzing the data. It would be better if the teachers' views could be taken into consideration as data.

#### 4. Results

The data collected from interviews in the Google classroom and the Facebook posts yielded the following results. The views expressed about their experiences with the three methods of education, i.e. online, face-to-face and blended methods collected through interviews and posts on Google Classroom and Facebook reveal the following themes. A comparative study of the participants' experiences with three methods was done, across the following themes. They are-1. Peer Interaction and Peer Support. 2. Teacher Feedback. 3. Learning

Varieties.4. Flexibility and Self-paced Learning. 5. Quality of Education and 6. Resources and Constraints. The themes are discussed below.

#### 4.1 Interaction and Peer Support

Interaction is a common theme that emerged from all responses regarding online education. Lack of interaction of all types was mentioned as a frustrating experience for all students in online education. Under this theme, the following subthemes emerged. Absence of teacher-student interaction, student-student interaction and absence of group work in the online classes.

#### Excerpt-1:

Student A says, "I could not see my teachers face-to-face and so I could not have any interaction and cordial relationship with my teachers." (A, Interview).

#### Excerpt-2:

Regarding student-student interaction, student D says, "I failed to see my friends, the talk I had with my friend were very little and I could not make friends with them." (D, Interview).

#### **Excerpt-3:**

From the Facebook post, the following response echoed the same theme. "Online class does not develop our communicative skill because there is no interaction in the class." (E, Facebook)

The theme of peer support is revealed in the responses of the majority of participants. Peer support in face-to-face education gives the following benefits. They are sharing views and opinions, bonding, interaction and social skills, removal of monotony through different modes of education and co-curricular and extracurricular activities and the scope to learn from the behaviour of others.

#### Excerpt-4:

Student B says, "Conversation allows for a better exchange of information since both speaker and listener can see and interpret body language and facial expressions." (B, Interview).

#### Excerpt-5:

Student C says, "It also promotes 'collaborative learning." (C, Interview).

In comparison with the online classes, all participants in this study prefer blended learning for many reasons. While mentioning the advantages, the majority of the highlight the scope of interaction with teachers and students during face-to-face classes.

#### Excerpt-6:

Student D says, "I will participate in a blended course at the university because in online education I will be able to use technology and during the face-to-face, I will be able to improve my communication skills." (D, Interview).

The majority of respondents say that online education has no interaction and teachers have no cordial relationship with students. Hence, online education does not develop students' communicative skills. On the other hand, the majority opined that the blended method helps to develop their communicative skills.

#### 4.2 Teacher Feedback

The lack of teacher feedback is mentioned as a big problem of online education. The majority of respondents(seven) mentioned that no prompt feedback is available in online education. Teachers can provide limited feedback, and the support they can give is not equal and sufficient for all in online education.

#### Excerpt-7:

Student H says, "Many times students need to get guidance and end up getting frustrated due to miscommunication. Students are likely to miss the biggest charm due to the communication barrier." (H, Interview).

The teacher's presence in the form of teacher support and guidance in face-to-face education can lead to student satisfaction in the face-to-face class.

#### Excerpt-8:

Student G says, "We can describe our problems, also ask questions and solutions at ease. Teachers can observe easily our improvements......Face-to-face education makes our learning easy." (G, Interview). This is also supplemented by the idea of hassle-free face-to-face education because students do not need to depend on the internet and another device.

#### Excerpt-9:

Student G says, "Face-to-face class allows students to have instant gratification with answers and help." (G, Interview).

#### Excerpt-10:

Student D says, "I can access more information and richer understanding through teacher and other student's body language and voice. I have the opportunity to connect with friends and teachers, solve problems and network with other students. So, I feel better in the face-to-face classes above all." (D, interview). Student L mentions the benefits of teacher support in face-to-face classes.

#### Excerpt-11:

He says, "If you do not understand anything, you can easily ask teacher and peers the next time for help in face-to-face classes." (L, Interview).

However, among the 11 respondents, 7 opined that teacher feedback that is to be found in the face-to-face classes assigned for the blended course was the greatest motivator for them to do blended education. The opportunity to meet their teachers during the face-to-face classes was beneficial for them to clarify and solve any problems they will face during the online portion of the course. For example, student G says,

#### Excerpt-12:

"The feedback that I will get during the face-to-face classes helped to eliminate the difficulties that I will face during the online classes." (G, Interview).

The majority of respondents complain about the lack of teacher feedback in the online classes. As a result, students feel frustrated. On the other hand, face-to-face classes provide students with the opportunity to have teacher guidance. However, the majority also opine that teacher feedback found in the face-to-face classes of the blended method is enough to make up for the deficiency of teacher feedback in online classes.

#### 4.3 Learning Varieties

The scope of learning varieties in face-to-face classes is a dominant theme. Most of the respondents(A.C.E.H.I,) opined that learning varieties in the face-to-face classes motivate them for learning. C says,

#### Excerpt-13:

"I liked my teachers' interesting lectures, chats with friends, class performances etc. Face-to-face classes are better than online classes because students have access to various learning activities on campus. Before the corona pandemic in the face-to-face classes, I felt more comfortable and learned easily in a familiar, traditional classroom situation. It is an effective way to learn knowledge and skills because it often combines different ways of learning including writing, reading, discussion, presentations, projects and group work etc." (C, Google classroom).

Out of the 11 students, only three respondents opine that the use of different platforms for education in online classes has increased their motivation for online education. The reasons for the enhanced motivation in online education are the use of different platforms for education, an increase in confidence owing to the use of technology and more chances of self-exploration by using a variety of platforms for learning.

Six students say that the blended course offered them more varieties of learning than the fully online and face-to-face education. Student J says,

#### Excerpt-14:

"I enjoyed more varieties in my learning experiences in the blended course because I could enjoy the learning techniques and activities of both the face-to-face and online education. The experiences were more thrilling and enjoyable for me." (J, Interview). Almost all agree that the use of technology in the blended course has increased their skill in technology and problem-solving. Student I says,

#### Excerpt-15:

"My experience with technology has been pleasant. I could become skilled in technology use and problem-solving skill." (I, Interview).

Regarding learning varieties, the majority believe that face-to-face education gives more learning varieties than the online method. Only 3 out of 11 respondents mention the learning varieties in online classes. On the other hand, 6 out of 11 are happy with the learning varieties of a blended method for combining the best of both in it, i.e. the face-to-face and the online method.

#### 4.4 Flexibility

The flexibility of online education can be an overarching advantage that includes the following subthemes. They are- class at any time and at any pace, opportunity to study and work at the same time, self-paced learning, no session backlog, timely completion of studies, and support at any time from teachers and peers.

Three respondents agree that fixed class time of faceto-face education ensures discipline, student C opines. Student F says,

#### Excerpt-16:

"Face-to-face education is maintained according to routine. That is why, our life also comes under discipline." (C, Interview).

The fixed class time of face-to-face classes is mentioned as a disadvantage by eight students. That is, they prefer online classes to face-to-face for their flexibility. They say that students cannot work because they have to attend classes physically according to the schedule at class time. They (A, C, D, E, H, J) cannot work as well as study if they do face-to-face education. Managing time is also a great drawback in face-to-face classes. Student D says,

#### Excerpt-17:

"Although face-to-face education is very effective, it has some disadvantages, like travel time and cost.

Attendance time can be restrictive or inconvenient. (D, Interview).

#### Excerpt-18:

Student J says, "Some students cannot come to university because of a part-time job." (J, Interview).

Students prefer the online classes to face-to-face classes because in the latter scheduling class is difficult. Teachers cannot attend to all students. Student D also likes online classes because face-to-face classes are a problem for students living far away. On the other hand, online classes offer more flexibility and better time management opportunity than face-to-face. He says,

#### Excerpt-19:

"I attended classes from my place and time." Student A says that the disadvantage of the face-to-face class is the "inability to attend class on time because of traffic jams. We come to class late most of the time." (D, Interview).

As an added advantage of online education, students mention the continuity of education during the pandemic and other natural disasters. Student C says,

#### Excerpt-20:

"Due to online education, we were not cut off from the usual track of education. (C, Interview). Student J says that she can finish her course on time and there is no session jam. She adds,

#### Excerpt-21:

"During this pandemic, I have not been facing session jam. I am benefitting from the online education because I am not going to suffer from session jam." (J, Interview). Student E mentions that online education is a blessing for us for no session loss. Most of the students mention the flexibility in various ways of online and blended education. While pointing out the advantages, student C says,

#### Excerpt-22:

"I had a lot of advantages from this. It was easy for me to attend classes from home and was easy to communicate with classmates and teachers. Mostly, it kept my learning on track during the time of the pandemic." (C, Interview).

The flexibility of the blended course is what the students admire most. Though the majority of students prefer online classes to face-to-face and blended in terms of flexibility, three of them agree that blended is also flexible and ten agree that blended is more flexible than the face-to-face and they enjoy the socialization scope of the blended method because in this method they can meet their friends and teachers once or twice a week. During

that time they can solve their problems, interact and socialize. Student H says,

#### Excerpt-23:

"Students who want to both study and work can do it easily. They do not need to do daily travel to the campus and women can also do higher studies." (H, Interview). Another student K says,

#### Excerpt-24:

"I could save my time because I did not need to come every day. I could save some time for my homework. I could also earn some extra money by teaching some students." (K, Interview).

Self-paced learning was mentioned by the majority of students as a strong reason for their liking blended courses. Student A says,

#### Excerpt-25:

"Blended learning blends the best things of face-to-face teaching and online instruction in ways that help students to learn at their own pace. For example, a student in a blended learning course who gets a concept earlier than his classmates can proceed without having to wait, and on the other hand, a student who needs more time is not compelled to move forward before fully mastering the subject. It is proving to be a gradable learning model that simply works for a variety of students." (A, Interview).

#### Excerpt-26:

Student H says, "Blended learning gives opportunities for integration of online with traditional place-based classroom methods. It requires the physical presence of both teacher and student, with some elements of student control over time or place. This is what I like most." (H, Google classroom).

Almost all the respondents believe that face-to-face education has no flexibility. On the other hand, they prefer online to face-to-face for its flexibility. Along with flexibility they mention the continuity of education at any cost in the online method. And though they agree that the blended method is less flexible than the online, it is much more flexible than face-to-face education.

#### 4.5 Quality of Education

The participants expressed their opinions about the quality of online and blended education. Eight of them mentioned that the quality of online education is an issue of concern. The following subthemes emerged from the responses (A, D, F..H. I.) which all are associated with quality of education. They lack real learning, cheating in the examination, and difficulty in preventing of cheating in the online examination. Student H says,

#### Excerpt-27:

"Full online education gives scope for cheating in the examination and other types of cheating such as copying and plagiarism. Students do not learn as much as in the face-to-face classes." (H, Interview). Moreover, the communication skill of the students does not develop as there is no interaction in the online education". Student I says,

#### Excerpt-28:

"By these online classes we are just passing from one semester to another but the quality of education has decreased. Also, there is the lack of attention in the online class." (I, Google classroom).

Student D mentions cheating in the online examination. Student A says that there is no seriousness in online classes. So, quality cannot be ensured. Student F says that in online learning students cannot fully understand any subject. He adds,

#### Excerpt-29:

"They feel uncomfortable to ask a second time if they do not understand a thing in online classes." (F, Interview).

Interestingly and conversely, two students (C. G) opined that online education enhances learning. The enhanced learning accrues from the independent way of learning in online education and the scope of skill development through the use of technology. Student C says,

#### Excerpt-30:

"I could feel the richness of my learning because I could search for different sources to acquire knowledge." (C, Interview).

Eight out of 11 say that face-to-face education ensures more quality than online. Only two students (B.E.) criticize face-to-face education for the poor learning success of students. In face-to-face education, students tend to rely more and more on teachers. This also leads to less tendency to self-exploration and autonomous learning. Introvert students also feel shy to ask questions in face-to-face classes. Student B says,

#### Excerpt-31:

"Shy students may have trouble approaching the instructor with questions." (B, Interview).

Seven out of eleven students believe that blended learning will improve the quality of education by enhancing learning. Student F says,

#### Excerpt-32:

"Blended education will be better because students can attend both face-to-face and online education. They will have to use the best of both types of education and experience with both." (F, Interview). Student G says,

#### Excerpt-33:

"Blended learning will be better than online and faceto-face education because exposure to different modes of education will develop their skill." (G, Interview). The following long quote illustrates their liking for blended courses. A student writes,

#### Excerpt-34:

"There are two key points usually associated with blended: students who can share information and work with other students directly in a group setting, have a richer learning experience, and interaction between students can be increased if group activities depend on information collected from online resources or lessons. It's also been seen that students who do online coursework in pursuance of interactive, face-to-face class activities, have better educational experience" (A, Google classroom). A student also writes,

#### Excerpt-35:

"Blended learning reduces failure rates, improves learning, and enhances engagement." (A, Google classroom).

Student F says that in blended education students learn more than in online and face-to-face education.

Four students opine that the quality of education might decrease in blended education. Student K says,

#### Excerpt-36:

"The real learning was not happening and the student will not properly concentrate on education. Student may not concentrate in studies. That is, real education does not happen in blended education." (K, Interview).

#### 4.6 Challenges and Problems

The respondents mention several challenges and problems in both online and blended education. Face-to-face education has also several practical problems related to the cost, time and physical hassles of travelling to campus. They can be categorized under resource, cost, time, physical and mental hassles etc.

#### 4.6.1 Resources and Constraints

While analyzing the resource and constraints issues of these types of education, the following themes emerged. They are scarcity of resources, costs, and health and mental hazards owing to online education. Almost all respondents mentioned resource constraints as a challenge for online education. The first theme is the challenges of resources which include electricity, device, internet. These resources are related to both availability and cost. Student G writes,

#### Excerpt-37:

"We cannot do classes for internet problem, Many students cannot do class because they do not have a smart phone. Being in the village makes it difficult for many to attend classes." (G, Facebook).

Students J and D complain about network problems in online classes. Students become disconnected for network problems. Student D writes,

#### Excerpt-38:

"Online classes cost a lot for data. They need to spend 10 dollars a month on data. However, the problems associated with face-to-face education are travel time and traffic jam, travel cost, accommodation cost, the hassle of catching transport and tiredness from travel" (D, Google Classroom).

Regarding the quality of education, 8 respondents agree that online lack quality because there is the scope for cheating in the examinations. They also think that in online education communication skill of students does not develop. However, 8 respondents agree that face-to-face ensures more quality than online education. Again, 7 out of 11 believe that blended ensures quality because it combines the best of both, face-to-face and online. On the other hand, 4 students complain about the low quality of the blended method.

#### 4.6.2 Cost and Hassles

While comparing the costs of online and face-to-face education, the comparative advantages of online education such as no travel cost, no food cost, no hassle for catching transport, and no accommodation costs were revealed from the responses of the majority of respondents. Students (B, D, E, F, I) opine that online classes are more cost-effective than face-to-face classes because they do not need travel costs, food costs and accommodation costs though they need to spend money on the internet. They also say that tuition fees for the blended course are less than the face-to-face course and that for online is less than the blended. A good number of respondents mention the cost-saving aspect of blended education because they will not have to travel every day to the campus, take food outside and stay near the campus. Student I prefers the blended course to the faceto-face class saying,

#### Excerpt-39:

"I will take the blended course at the university level because it will save money The tuition fees of blended courses are to be less than the face-to-face."(I, Interview). However, only three say that they like blended learning because only for the low cost.

#### 4.6.3 Health and Mental Hazards

While responding about the hazards of online education, the following problems were identified in the responses of the majority (seven) of students. The respondents revealed that online education is taxing for the eyes and brain. Online education creates many diseases like poor vision and inertia. On the mental level, it creates depression, and laziness and ultimately leads to de-motivation in studies. Student G says,

#### Excerpt-40:

"Our brain and eyes are affected due to attending classes for a long time in front of mobile or laptop screens. Mostly, it makes us physically lazy." (G, Interview). Student D writes,

#### Excerpt-41:

"I have also gained experience in using different software which will help in future, although this online class is getting too boring day by day." (D, Facebook). Student F says,

#### Excerpt-42:

"Due to online classes, mobile addiction has increased which is dangerous for us. I agree that for this online class we don't have to face any vehicle problems and jams. And for this pandemic, we don't have to face any year drop. But other problems have increased such as insomnia, depression, vision loss, irritable mood." (F, Interview). A student writes,

#### Excerpt-43:

"We cannot give concentration to studies in online classes. However, there is fewer health problem in the blended course because half of the classes are done faceto-face." (H, Facebook post).

Regarding the challenges of both face-to-face and online classes, almost all agree that face-to-face is more costly than online and blended because face-to-face requires space, travel cost, food cost and accommodation cost for students. But regarding online, the majority of students mention challenges such as the cost of the device, internet and access to it. However, the majority believe that in terms of cost, blended stands at the middle point because it is less costly than face-to-face and more costly than the online method. Regarding mental and physical problems, the majority of respondents believe that online is more stressful on the mind and health than the face-to-face method. In combination with the respondents' positive opinion about the blended method in the interviews and other posts, the scores of student essays are presented below to investigate whether their performance has improved or not as a result of teacher ad peer feedback on their essays in the writing blog, a platform of this blended course. The continuous progress of the respondents writing skills is shown in the table 1.

# UTAMAX

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UTAMAX

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Table 1. Essay Scores

Students' ID	Essay 1	Essay 2	Essay 3	Essay 4
1	67%	67%	79%	80%
2	66%	69%	77%	82%
3	67%	68%	78%	81%
4	65%	60%	68%	68%
5	66%	61%	63%	60%
6	65%	69%	79%	79%
7	67%	67%	76%	80%
8	67%	67%	63%	61%
9	68%	70%	80%	82%
10	67%	72%	81%	83%
11	55%	55%	52%	53%

The respondents submitted four essays using the blog set up for them with the aim of learning process writing. The table shows the students' completed essay grades after revision and editing. Except for 1 student, i.e. student no. 4, whose scores remained unchanged in essay no.4, 7 out of 11 samples received greater grades in essay 2 than in essay 1 and it gradually increased.

Despite the few cases where students scored similar points in two consecutive essays, the data demonstrates that almost more than 70 % of participants improved their writing with each subsequent essay they produced on the blog following the submission of the first essay. It is seen that however, 3 students' essay scores did not improve but rather decreased. Students no. 5,8 and 11 show a decrease in score. So, though the data indicate steady progress of student's writing skills through the blog, stagnant condition of 1 student and a decrease in 3 out of 11 indicate mixed results about the effectiveness of the blogging activities, a teaching substitute platform of the blended method. There is steady progress in the performance of 7 students' writing skills. So, it can be rightly assumed that the positive impacts of blogging on the achievement of writing skills in the majority of students strongly are supported by the scores, which in the long run, indicates the effectiveness of the blended method in developing students' writing skill.

#### 5. Discussion

#### 5.1 Interaction

The lack of interaction and peer support in online education has been mentioned as a problem of online education by the majority of respondents in this study. We all know that limited instantaneous interaction is a challenge in online education. This view is echoed in the literature on online education too. The lack of simultaneous interaction in online learning harms learning and teaching and accordingly the acquisition of skills in students. The perception is that students doing face-to-face programs perform better than those in online courses because students are offered more physical interaction with their teacher and among themselves (Arviso, 2019). Student D's expression supports this view. He says, "I will participate in a blended course at the university because in online education I will be able to use technology and during the face-to-face, I will be able to improve my communication skills." Hence, blended learning is advantageous because it offers the scope of both face-to-face and online education to the students.

All eleven students reported more interaction and communication among themselves in the blended course they did. Student-student interaction is a great charm for blended education among the respondents in our study which was reverberated earlier in Sorbie's (2015)

qualitative study which indicates that blended learning caters to students' learning styles, promotes collaboration among learners, engages students and instructors in discussion and practical learning. Dumont and Raggo (2018) found more positive academic progress as a result of the interaction in blended mode (Kintu et al., 2017) echoing the same opinion that blended learning boosts a strong sense of cooperation for students.

#### **5.2** Teacher Feedback

All eleven students in this study mentioned that they got more teacher feedback and support in the blended course they did. More student-teacher interaction is mentioned as a reason for liking blended education in this study. Compared to full online education, blended education provides more scope for student-teacher and student-student interaction, as shown in previous studies. Kurucay and Inan (2017) mentioned about three types of interactions in blended learning environments such as learner to content, learner to the instructor, and learner to learner. These interactions are crucial for the student's and satisfaction in blended success environments. They agree that in face-to-face classes teachers always cannot attend to all students' problems individually for the lack of time. But as the blended course has an asynchronous facility, teacher feedback can be given at any time.

#### 5.3 Learning Varieties

Six students say that the blended course offered them more varieties of learning than the fully online and faceto-face education. Student J says, "I enjoyed more varieties in my learning experiences in the blended course because I could enjoy the learning techniques and activities of both the face-to-face and online education. The experiences were more thrilling and enjoyable for Though face-to-face education has been me." appreciated by the majority of respondents in this study for its variety of learning activities, a good number of them also highlight the multi-faceted activities of online education as its charms. This view is also stated by Martin (2020). He says that detailed recording of student performance such as participation in courses, projects, quizzes and exams in the system through Learning Management System (LMS) is very advantageous in evaluating education (Martin, 2020). The online blended learning activities give students the charms of using various learning systems. The opportunity for increased learning is present neither online nor face-to-face learning. The aggregate advantage of face-to-face and online activities gives the participants an extra benefit in learning. Sorbie (2015) found that blended learning caters to students' learning styles, promotes collaboration among learners, and engages students and instructors in discussion and practical learning activities (Sorbie, 2015).

The reason for the participants' liking the blended education in this study is enhanced learning. In our study, almost all agree that the use of technology in the blended course has increased their skill in technology and problem-solving. About enhanced learning, most respondents say that as everything is revolving around advancements in technology, improving a course through technology may help to achieve an effective teaching and learning environment.

#### 5.4 Flexibility

Another important reason for the students preferring blended learning to face-to-face in our study is flexibility. The flexibility of the blended course is what the students admire most in our study. Though the majority of students prefer online classes to face-to-face and blended in terms of flexibility, four of them agree that blended is also flexible and they enjoy the socialization scope of the blended method because in this method they can meet their friends and teachers once or twice a week. Ten participants however think that blended is more flexible than the face-to-face classes and online is more flexible than the blended method. This view is supported in many research studies, for example, by Tarvyd, (2019) who also revealed the flexible learning schedule, alternative pathway for education and multiple motivations to enter a blended learning program. Similarly, Enrichsen et al. (2017) indicated that students get satisfaction from the course when they feel there is flexibility, involvement of the instructor, interactive communication and different assignments in a course. Antwi-Boampong (2021)'s study showed that the students found the blended method convenient, flexible and conducive to learning beyond the limitations imposed by the classrooms. His findings indicate that blended courses offer more convenience and flexibility than face-to-face delivery. According to Barker (2015), "hybrid courses provide an alternative to spending time on campus; it reduces commuting time and travel expenses" (p. 145).

#### 5.5 Quality of Education

The quality of online education was stated as a strong concern by the majority of students in our study which is echoed by (Irvin et al., 2011 that concern with the quality of online courses is also a burning issue. The following research also supports the viewpoint. Compared to traditional face-to-face education, online learning has low quality. Peers cannot offer to learn help if the system design does not support this actively. This makes the impact of poor learning design acute when online learning is the only option (Arviso,2019). Online courses offer limited access to the practical and visual aspects of content. Students, therefore, cannot visualize what they read and that leads to more dropouts. Marcia's study of online courses found a 45% dropout rate in some colleges and universities for the lack of support from the

institution but it was only 11% for face-to-face students (Ryan et al., 2016). But the face-to-face portion of the blended learning method is expected to make up for the deficiency of quality that the full online education is assumed to have. This view is expressed by the majority of our respondents.

Seven out of eleven students in our study believe that blended learning will improve the quality of education by enhancing knowledge. This view was echoed by Nasser (2020) who also revealed the achievement of the following important benefits of the blended method such as accessibility, visualization, motivation, social skills, and critical thinking through the blended mode. Margolis, Porter, and Pitterle's (2017) study also mentioned the execution of the classroom activities that were translatable to 21st-century real-world issues.

### 5.6 Digital Divide and Online and Blended Education

The number of respondents mentioning resource problem in online education in our study are eleven. All respondents mentioned resource constraints as a challenge for online education. The first theme is the challenges of resources which include electricity, device, internet. These resources are related to both availability and cost. This scenario is a common phenomenon in every less privileged country. There are increasing concerns everywhere that students from less-privileged families or less-well-financed institutions could be dropped from the online mode of education. The economic and technological divide in Asia has come to be even more evident now than ever before with the added deprivation of students from campuses. i.e. resources such as libraries, computer facilities and standard rooms (Lau, 2020). This view is echoed in studies done in Bangladesh as well.

Poor or no internet connection and costly mobile data are the main hindrances for low participation in online classes in rural and distant areas and especially from poor economic backgrounds (Jashim & Sajid,2020). To minimize the challenges of resources required for complete online education, blended learning can play a significant role because in this method the face-to-face classes are effective in handling and addressing the problems being faced while doing the online classes. But still, resource problems associated with the blended course will be a challenge for the students in marginally placed countries. This view is stated by many of our participants too.

#### **5.7** Cost Effectiveness

Seven students found blended learning more costeffective in this study in terms of travel, food and accommodation costs. This view strongly supports the use of blended learning in the Bangladeshi education system as a solution to traffic jams in Bangladeshi cities. Chakraborty (2016) states that the city-dwellers of Bangladesh are encumbered with the regular menace of traffic jams. Around 5.00 million working hours are being wasted every day in traffic jams that incur an average financial loss of taka 370 billion every year. MCCI & CMILT (2010) revealed that traffic jam was liable for the loss of people's 8.15 million working hours, 40 per cent of which are business hours (Chakraborty, 2016). Moreover, students doing the blended course will have to spend almost half of the expenses being incurred for face-to-face education because it will cut down tuition fees, food, travel and accommodation costs.

To sum up, the study reports more interaction among the majority of students in the blended method. They were happy because they could interact with peers in both the channels, face-to-face and online and could have peer feedback during the online activities of writing essays. The study also reported that the students got more teacher feedback in the blended method. Another important finding of the study is that they got more varieties of learning activities in the blended format than the only face-to-face or only online. They report that the use of technology for the online classes in the blended method has increased their technological and problem-solving skills compared to the face-to-face and online classes. Regarding the flexibility option, they preferred the online to the other two methods. In their choice blended method held the second preference for there is the compulsion of face-to-face classes once a week. They were very optimistic about the contribution of the blended method to minimizing session backlog in Bangladeshi higher education institutions. Here also online education is the best option to address this problem. They opine that blended learning will help to alleviate the problem of accommodation in student dormitories of universities.

Regarding the quality of education, 7 out of 11 participants1, that is, the majority believe that the benefits and opportunities blended method creates for students in terms of enhanced learning, higher order learning, and technological skills are assumed to ensure better learning for the students. Considering other benefits of the blended method, it is the best of all three methods. As online education is held in low esteem by common people, the blended method is assumed to make up for the limitations of online education because here the teacher's presence and feedback during the face-toface portions of the course will help the students who need support from teachers and peers. All agree on the issue of the digital divide as an obstacle to online education in Bangladesh. It might be a similar issue with the blended though not on the same scale. So, the blended course can partially compensate for the problem of the digital divide.

Blended courses will also increase the intake of public universities. Teachers can utilize this time for research, innovation, and industry engagement whereas students can do research, study at home or part-time work or do tuition work in case of financial problems In In these circumstances, the blended approach provides a lot of flexibility to the students and teachers. As a result, universities may significantly increase student intake.

#### 6. Conclusions

This study was conducted to investigate the advantages as well as the disadvantages of both online and face-to-face education on the one hand and the experiences of the students with the blended method on the other. While highlighting the advantages of face-toface education, the respondents mentioned teacher and peer support, interaction and learning varieties etc. on the one hand. They also mentioned disadvantages such as the lack of flexibility and self-paced learning and problems such as session backlog, the crisis of seats and accommodation in student dormitories on the other. Similarly, while elaborating upon the advantages of online education, respondents mentioned advantages such as the flexibility of time and space, scope of enhanced learning through self-exploration, familiarity with using technology, low cost of education on the one hand and the disadvantages and challenges such as cost of device and internet, the lack of instant teacher feedback, low quality of online education and physical and mental hazards on the other.

In comparison with both online and face-to-face education, the majority of students in this study opined that blended learning is a better and more effective alternative to both of them for Bangladeshi universities. To sum up, by doing this blended course they enjoyed the charms and the best things of both face-to-face and online education. In the blended course, they had more flexibility, enhanced learning, teacher feedback and more interaction than the face-to-face and online education. The majority of samples also reported that blended learning would help to address many critical problems of the face-to-face higher education of Bangladesh such as session backlog, the crisis of seats, cost of private higher education, and would also help the youth to continue the job and higher education simultaneously. The findings of the study will be impactful on the policy-makers and decision-makers in education to contemplate and consider the implementation of the blended learning method to improve the quality of higher education in Bangladesh. The opinions of the learners in this study will also be helpful for the instructors offering blended education in considering choosing the teaching materials and techniques for the combined courses.

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