

CHAPTER FIVE

CONCLUSION

5.1. Introduction

The blended classroom model uses a learner-centered approach highlighting many changes to the learning environment and pedagogical methods. While this transition to an active learning model offers many benefits, there is a lack of empirical research and supportive literature for understanding this phenomenon in a Bangladeshi higher education context. Hence, the information from this case study is expected to provide an opportunity for understanding the experience of those who have transitioned to this model for the first time in their academic life. So, the objectives of the study were to:

1. Investigate the effectiveness of the blended learning method in Bangladeshi higher education in the 21st century.
2. Investigate the experiences of teachers and students in using blended learning in an English Writing Course.
3. Find out the prospects of blended learning to increase educational opportunities in Bangladeshi higher education sector.

Taking into account both the opportunities, such as connectivity with the Information Super Highway and the expansion of information and computer technology in Bangladesh, as well as the challenges of online education, such as the helplessness of Bangladeshi universities during the Covid-19 pandemic, the slow move to digitalize higher education, the contradictory and indecisive role of the UGC of Bangladesh, and the digital divide in implementing online education, it is assumed that blended method will offer a huge prospect for Bangladeshi higher education. Therefore, this study will help the decision-makers find an alternative kind of instruction for Bangladesh's higher education system. In terms of student learning outcomes accomplishment and academic satisfaction, solution to other infrastructural problems, blended learning is expected to open new opportunities to Bangladeshi universities.

This is a case study following the qualitative research method to explore the contribution of blended learning to minimize the crisis of seats in public and private universities, and enhance the employment skills of Bangladeshi university graduates. This study also investigated the experiences of two teachers teaching and fifteen students doing an English writing course in the blended learning method in the English Department of a private university in Bangladesh.

For this case study, I used two kinds of data collection instruments, interviews and documents. The interview excerpts and other texts from Facebook, Google Classroom, and student diaries were analyzed to create themes. The post-course interviews helped to do a comparative study of both the advantages and disadvantages of

both online and face-to-face education on the one hand and the experiences of the students with blended education on the other. I used thematic analysis for reviewing the data collected from the one-on-one interviews. Three overarching themes in conformity with three research questions emerged from the coded data: (a) the effectiveness of blended learning, (b) the facilitating role of technology in the learning process, and (c) the creation of opportunities among tertiary-level students of Bangladesh by blended learning.

To summarize the findings, the respondents mentioned a variety of benefits of in-person learning, including teacher and peer support, interaction, and different types of learning, as well as some drawbacks, including a lack of flexibility and self-paced learning, issues like session backlogs, seat shortage, and accommodation in dorms. Similarly, when describing the benefits of online learning, participants cited benefits like flexibility in time and space, the opportunity for enhanced learning through self-exploration, familiarity with technology, and low cost of education, as well as drawbacks and challenges like the high price of equipment and the internet, the lack of immediate teacher feedback, the quality of online learning, and physical and mental risks. Therefore, taking into account the drawbacks of face-to-face instruction as well as the shortcomings of online instruction, the majority of participants in this study believed that blended learning could be a viable alternative to both face-to-face instruction and online instruction for Bangladeshi universities.

The majority of participants in this study had positive opinion about and satisfaction with the blended course they had done. Their preference for blended courses was mostly attributed to the fact that they allowed them to benefit from both the charms

and the best aspects of face-to-face and online learning. Flexibility, better learning through teacher feedback and self-exploration, and most significantly, interaction during both the face-to-face classes and the synchronous and asynchronous platforms developed for the course were all advantages of the blended course. They also reported better achievement of learning outcomes, such as technological skills, higher-order learning and satisfaction with the course. That is, the study reported better interaction in the majority of students in the blended method. They were satisfied since they could engage in both face-to-face and online interactions with their peers and receive feedback from them while engaging in online essay writing activities. The study also found that using a blended approach gave students greater teacher input.

The study also found that using a blended learning approach gave students access to a wider variety of learning activities than using solely in-person or only online instruction. In comparison to face-to-face and online sessions, they claimed that using technology for the blended method's online lessons had improved their technological and problem-solving abilities. They liked the online technique over the other two in terms of flexibility. They chose the blended technique as their second choice since it offered face-to-face classes that required them to travel to the University. They had high hopes for the blended approach's scopes for helping Bangladeshi higher education institutions to reduce session backlogs. To solve this issue, it was concluded that both online and blended education were superior to face-to-face instruction. Additionally, they believed that blended learning would help to solve the issue of accommodation in university's residence halls.

Regarding the quality of education, all participants opined that face-to-face education ensured better quality than the blended whereas the majority of participants opined that the blended method also ensured quality education. Since the general public has a low opinion of online education, it is expected that the blended approach will compensate for its drawbacks because, in this approach, the teacher's presence and feedback during the face-to-face portions of the blended course will help the students who need support from peers and teachers. Similarly, as face-to-face education is limited by constraints such as session backlog, crisis of seats, cost of tuition fees, inflexibility and so on, blended learning is expected to offer more opportunities for Bangladeshi higher education sector. All agreed on the challenge of the digital divide as a barrier to online education in Bangladesh. Though not on the same scale, the digital divide might be a similar issue to the blended method. All agreed that it is not to be a problem in face-to-face education. So, blended course can partially compensate for the problem of the digital divide because in the blended method half or at least 35-40 percent of the total classes will be held face-to-face. However, minus the device and internet issue, the cost of blended education will be less than that of face-to-face education. If universities and government provide students with devices and the internet at a subsidized price, doing a blended course will not be a serious problem.

A short discussion about research question no.1., What is the effectiveness of blended learning in the Bangladeshi higher education sector in the 21st century,? will be done below. It is important to discuss this research question in terms of the findings and themes derived from the findings here. Ten students were happy with teacher feedback they got during the face-to-face and online classes. All agreed that they were interested to

join in more blended courses at the university. The peer feedback in the blended course was found as an advantage of blended learning as mentioned by the majority of students. The interaction of teachers and students was also regarded as an important advantage of the blended course by the majority of students. Twelve students found the face-to-face portions of the blended course as a relief because they could meet their teachers for feedback and support in the face-to-face classes.

It was found in the study that student satisfaction with the blended course titled English Writing Skills accrued from factors like teachers' feedback, peer feedback, and learning something in a new and innovative way. The majority of students said that they were satisfied with the course because it offered them opportunity to do a course by using different platforms and resources. The majority of students agreed that the blended learning method helps to develop the employment skills such as communication skills, group work skills, critical thinking skills, self-management skills, and time management skills. The majority of students in this study said that this method had given them a new experience of using technology and internet. They could comfortably use the technology for doing the course. Half of the students were comfortable with using this new technology. The majority of students had a positive opinion about the quality of blended learning method for varieties of learning activities and platforms though five students opined that quality of education might decrease in blended education. So, it can be said that the majority of participants reported more peer interaction, student-teacher interaction, teacher feedback, more learning varieties, learning outcomes, and enhancement of higher-order thinking, and employment skills through the blended method than the online and the face-to-face methods.

A short discussion about the research question no. 2., How do teachers and students experience the blended learning method in an English writing course at undergraduate level, indicates a positive impact of the blended course on the students' writing skill development through the process approach to writing. Although the two teachers held significantly different opinions regarding the process approach to writing, the majority of students claimed that brainstorming, planning, writing drafts, receiving feedback, editing, and other strategies helped them improve their writing abilities. All students' essay grades show how they gradually improved their writing abilities by using the process approach to writing. In essay 2, 12 out of 15 participants obtained grades that were higher than in essay 1, and the grades continued to rise throughout the remaining essays. 10 students achieved almost 80% marks in their last essays. The results of only 3 students declined by 3 to 4 marks. Two students progressed slightly by 3 to 4 marks which indicates mixed results about the effectiveness of the blogging activities. Using blog as an online platform for practicing writing in addition to face-to-face classes had a significant contribution to the writing skill development of undergraduate students.

While discussing the third research question, 'how can blended learning increase tertiary learning opportunities among Bangladeshi students?' a positive impact is found in many areas and themes derived from the findings. The research participants opined that blended method would contribute to remove many critical problems of the Bangladeshi higher education sector, such as session backlog, crisis of seats in renowned universities, traffic jam, continuity of education in all situations, flexibility, and expansion of education for women and working youths of the country. The findings are summarized below.

All students opined that blended learning would help to reduce session backlog in the universities because classes would not stop during student unrest, natural disasters or the pandemic. All students agreed that blended course would reduce all kinds of costs including tuition fees. 1 teacher admitted that blended learning would minimize the cost of education because it would not only minimize tuition fees, but also reduce travel cost, food cost, accommodation cost and other education-related costs.

Half of the students opined that blended learning would facilitate higher education for women in the country. Thirteen students opined that blended method would help students to continue their education because it allows them to continue their job while working. Fifteen students agreed that online learning ensured the maximum flexibility followed by blended method as mentioned by the majority of students, but none agreed that face-to-face method ensured any flexibility. Fourteen students and two teachers opined that blended course would increase the number of students in the tertiary intuitions because less infra-structural facilities that include classroom, student dormitories and teachers would be required for offering blended course than in face-to-face method. So, the majority of participants reported that blended learning method would facilitate more learning opportunities for Bangladeshi higher education sector than the other two methods. However, the majority of students mentioned the cost of devices as a major problem for doing blended course among the Bangladeshi students. Half of the students mentioned the internet as a problem for both online and blended method. Half of the students mentioned the mental stress suffered as a result of doing online classes. However, the majority of participants said that mental stress suffered in the blended method was much less than that in the online education.

So, after discussing the three research questions, it can be concluded that blended learning will have significantly positive impacts on many important areas of teaching-learning of the 21st century higher education, such as enhancement of learning outcome and graduate skills, student satisfaction and motivation. In this study, this method was also found to ensure teacher feedback, peer feedback, interaction with teachers and peers, self-paced learning, and as a whole, qualities of education like the face-to-face education. This blended course also familiarized the tertiary level students with the effective method of teaching writing and it was found that using blog as an online platform of blended method was effective to develop the solid writing skill of the participants. It was also found from the findings that the majority of participants in this study believed that blended method would have long-lasting impacts on Bangladeshi higher education sector in terms of benefits such as easing of session backlog, reduction in tuition fees, and other costs of higher education, expansion of women's education, opportunities of simultaneous job and education for the youth, the flexibility of education, more admission into universities.

On the other hand, the study also pinpointed at a number of logistic and financial constrains such as internet connectivity, high cost of devices and the internet, teacher training for blended education. However, they opined that in comparison with these challenges of blended education, the benefits that may be derived from this method would be much more than the problems encountered. Some of them mentioned that if government and institutional support can be made available for students, it would be possible to address these problems of blended education.

In light of the findings of my study, a model of blended learning for the Bangladeshi universities can be formulated by taking the socio-economic, cultural and the digital scenario into consideration. I have envisaged a concept of blended learning for the higher education providers of Bangladesh.

5.2. Proposed Concept of Blended Learning Format for Bangladeshi Universities

The prospects of blended learning in Bangladesh depend on a plethora of factors which can be categorized into four tiers. They are a) policy-making level, b) institutional level, c) instructor level and d) student level. The success of the blended model that can be envisaged for Bangladesh depends not only on the institutional capability and teacher-students' needs, but also on policy-level preferences and responsibilities. The roles, responsibilities, and expectations of each stakeholder are described below.

5.2.1. Policy-makers

As it was mentioned earlier, the negative perception of policy-makers is a bottleneck to the implementation of the blended method in Bangladeshi higher education, first of all, the negative perception needs to be removed. As the majority of people believe that online education cannot ensure quality education and learning outcomes, the blended method is similarly assumed to get a cold welcome from people for this reason. So, an appropriate policy for the blended method for Bangladeshi universities is to be drafted giving thoughtful consideration to implementable strategies. The UGC and the Ministry of Education are to play the pioneering role in this regard. They are to ensure that all universities are ready to implement blended learning with sufficient preparation.

They are to monitor regularly the operations, progress, and quality of blended education in the universities. They are to seek the opinions of other stakeholders such as universities, employers, teachers, and experts. They are to draft down-to-earth manageable strategies giving cognizance to the socio-economic reality of Bangladesh. The government also needs to provide devices and the internet at a free or at least subsidized cost. The government also needs to ensure that equitable internet connectivity is everywhere through private mobile phone operators at a subsidized price for the students.

The quality of blended education should not be compromised in any way. Cheating in examinations and plagiarism should be checked and the assessment system needs to be strictly proctored. The findings of this study also call for measures for checking unfair means in the assessments.

5.2.2. Institutions

The logistics area is an important issue for managing the blended course. Institutional capacity and capability in technology and logistics need to be increased. The technical support of IT Department of the universities is a prerequisite to managing and operating a blended course. So, the technological strength of institutions for running blended courses is to be increased at the maximum level.

Universities should ensure required technologies and support including hardware, software and internet connectivity for teachers and students. All teachers offering the blended course should be provided with necessary devices, software, and seamless

Internet connectivity for smooth blended-learning operation and necessary technological support for content development such as digital studios. It is to be ensured that students even with limited internet connectivity and basic devices can have access to Learning Management System (LMSs).

Blended learning should be supported by technologies including learning management systems (LMSs), servers, the Internet, and equipment. Blended learning activities need to be introduced, managed, supported, and monitored by a separate center or institute of the university. Many respondents in my study expected the support of experts in solving their problems.

As there is still no equitable internet and device facility for all in the country, there should be the scope for the incorporation of a maximum of face-to-face classes in the blended courses. It is to be ensured that at least 50% of classes in a blended course are to be face-to-face so that students can get the maximum benefits of teaching-learning.

Flexible learning environments for a cross-cultural context should be in place so that part-time job-holders can pursue their education. The flexibility of time is to be ensured. It is to be considered that the class schedule of the in-person classes of the blended method is fixed in consultation with the students and considering the needs of the students so that students can do both job and studies at the same time. It will also ensure more intakes into tertiary institutions. The course delivery method should be flexible and asynchronous as well so that students can have access to the course contents 24/7. If any student cannot access online site for the digital and technological reason, there should be the scope for postal delivery of the reading materials and assignments to the students. As

a result, no student will be left behind and education will continue which will help to reduce the session backlog in public universities.

Tuition fees for blended courses need to be within the reach of the students. As the tuition fees in private universities are high in comparison with the public universities, so if the private universities can offer blended course, tuition fees will go down. Then the needy and deserving students will be able to afford higher education.

The learning activities and contents of the blended course to be delivered using online platforms and digital media should be selected judiciously. In order to mitigate people's wrong perceptions about the blended education in Bangladesh, assessments in the psychomotor and affective domains should be kept to a minimum unless emergency really emerges. The final test should be like a regular on-site evaluation. With the academic committee's prior approval, continuous evaluations such as midterms, class examinations, quizzes, and assignments may be held online under the conditions of strict remote invigilation, online proctoring, and teacher interference. This concern about unfair means in the blended method was expressed by the majority of the participants in my study. So, to remove the negative perception of people about the blended method, the bulk of the assessments should be onsite.

5.2.3. Teachers

Blended learning instructors must be both skilled in educational technology and flexible in meeting students' academic needs. Instructors' reluctance in following blended method that accrues from the lack of technological and pedagogical skills in blended

method is to be addressed with caution. The training of senior and aged teachers is to be ensured. If they are properly trained in technology and appropriate pedagogy of blended method, the blended method can be effective and successful in Bangladesh.

Instructors need to be aware of student expectations from the blended course. They need to be trained not only in technology but also in the design and preparation of syllabi, and materials for the blended course because teaching and designing a blended course are different from teaching a face-to-face and online course. There must be the scope for uploading recorded lectures and classes.

In the process of transition from traditional to the blended learning, there must be a simultaneous switch from a teacher-centered to a student-centered model. For that purpose, teachers should also create the scope for interaction among students as well as between students and themselves which can be ensured through asynchronous and ‘easy-to-use’ Learning Management System (LMS). Learning materials should be uploaded onto the system for all-time access by learners. There should be the scope for more learning varieties to increase student satisfaction and motivation. Teachers are to align appropriate learning outcomes with the level of students to whom the course is offered. There should be a proper balance between higher-order learning and lower-order learning outcomes in each course.

5.2.4. Students

Learners should have access to tests, lectures, tasks, and resources uploaded by the teachers for 24/7. Online resources are to be used as helping materials for learning,

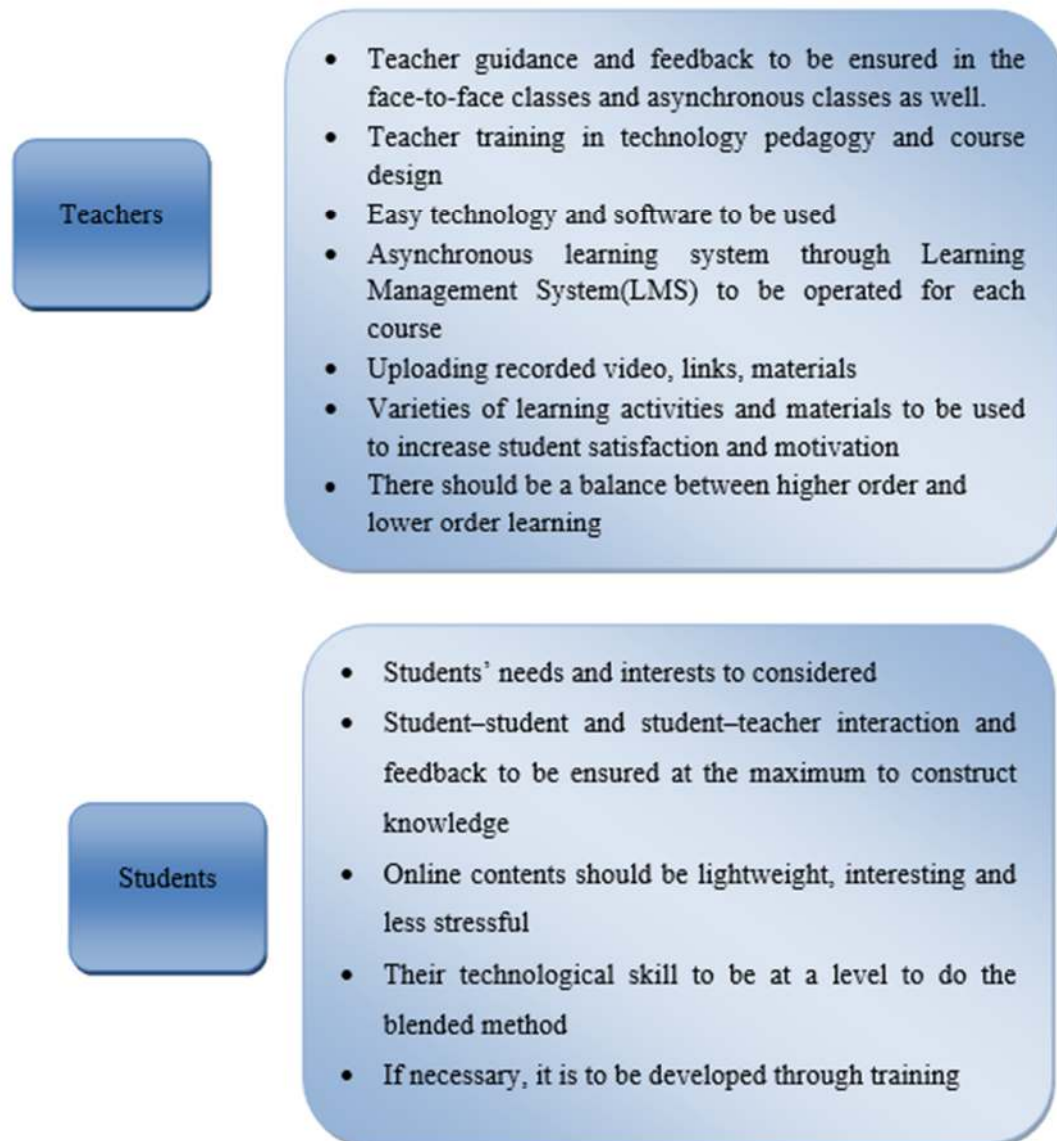
with web-based forums where message boards, blogs, email, WebCT, and LMSs can be the means for the delivery of assignments, through an asynchronous learning approach.

Educators responsible for developing blended courses should not only focus on the classroom content but also on the online component. As a significant portion of the course is offered online, in this method students get mentally stressed. So, the online contents should be interesting and less stressful. There must be the scope for student-student and student-teacher interactions in both face-to-face and online classes. The views of the students about their preferences for learning materials as expressed through the interviews in my study will give valuable insights into the issues for the blended course designers and teachers. Students also need to be trained in using technology to do a blended course. The technology to be used for the blended courses should also be friendly and handy to the students. The technological and financial affordability of the students to be enrolled in the blended method needs to be ensured. The blended method can only be successful if the students are technologically and financially capable to do the course. If required, they are to be given training in technology. The proposed blended learning format is shown in the following table earmarking the stakeholders, their corresponding roles, responsibilities, and expectations from each of them.

Table-5.1: Proposed Blended Method Design for Bangladesh

Stakeholders	Roles, responsibilities and expectations, documents
Policy-makers	• Formulating down-to-earth policies and reviewing them • Determining the number of courses and disciplines that can be offered as blended • Recommending and asking the government to provide devices, internet to students at affordable price • Tuition fees of blended courses to be fixed at lower rate than the face-to-face • Ensuring internet connectivity everywhere • Monitoring universities running blended education and sustaining quality of teaching and assessment
Institutions	• Increasing technological and administrative capability of higher education institutions through investment • Ensuring minimum 50 % of face-to-face classes in a course • Flexibility in class timing and management to be ensured so that students can both study and work • Tuition fees to be made affordable so that all can have access to higher education • Continuity of education to be ensured to evade session backlog • More scope for teacher-student and student-student interaction to be created during the in-person classes • Unfair means to be checked through software and technology.

Table-5.1: Proposed Blended Method Design for Bangladesh(cont'd)



It is expected that if the above-mentioned guidelines are followed in implementing blended learning by the Bangladeshi higher education institutions, the methods will be effective in bringing improvement in the quality of higher education in Bangladesh as in other countries where this method is widely being used not only at the higher education level but also even at the secondary level and for offering many professional degrees. Considering the preparation of the government of Bangladesh for introducing the blended method at universities, it can be assumed that this method has a lot of potential for Bangladeshi higher education. But proper planning should be there at its policy-formulation stage and strict monitoring is to be done at its implementation stage so that it does not fail like other past innovative measures of the government for the higher education of Bangladesh.

The apex decision-making body of higher education in Bangladesh has realized the importance of the blended method and hence articulated its commitment in the strategic plan for higher education in Bangladesh. In clause B.13 of the Strategic Plan for Higher Education of Bangladesh titled, Strategic Plan for Higher Education in Bangladesh (2018-30), proposed by the University Grants Commission of Bangladesh (UGC), it is stipulated that blended programs/courses should be introduced to make tertiary education more accessible and cost-effective. Learning Management Systems (LMS) should be activated in all the universities (University Grants Commission of Bangladesh, Strategic plan for higher education in Bangladesh (2018-2030), (2018, P.35).

5.3. Implications of the Study

The study is expected to have implications for the blended learning practice, methodology, and theory of the blended method in general and Bangladesh in particular. The implications are discussed below.

The study is anticipated to provide guidance on the prospects blended learning will offer for Bangladesh's higher education system. The number of students enrolling in public universities will rise as a result of the blended course. More than a million students annually pass the higher secondary examinations in Bangladesh but, it is a big challenge to increase the physical infrastructure overnight. Therefore, blended learning will be a great solution to their admission into public universities and reputed private universities. The blended approach will give both students and teachers a great deal of flexibility, while universities may greatly increase the number of students they enroll. Thus, the blended method will provide educational institutions with ample opportunities to raise student intake. The study is also expected to give an answer to the issue of whether blended and online learning methods can help Bangladeshi university graduates to achieve the 21st-century graduate skills.

Additionally, professional development practices of blended learning might happen by utilizing this research to prepare instructors to design and implement blended courses. Moreover, this research would be used for further analysis on how to remove barriers, and apply different theories and techniques of the blended method to explore the prospects of this method in the Bangladeshi higher education setting. By utilizing this research to gain more insight into the areas of need and further development, the Bangladeshi version of the blended education system might be developed in the future.

The study's findings will influence policy-makers and decision-makers in higher education to consider the implementation of blended learning to address a variety of academic and infrastructure issues in Bangladeshi universities as well as to raise the standard of higher education, which over time may help to address a variety of socioeconomic and educational issues.

By offering the blended method as a feasible alternative for higher education to those who would otherwise be unable to pursue it for their own benefit, it can be claimed that this study will have a good impact on Bangladesh's higher education system. This study is timely since it may provide additional insights into instructors' and students' perspectives on blended learning, which will improve understanding among policymakers, educators, and students on the use of blended learning in the curriculum. As a new and similarly successful style of education, blended education is assumed to address the issues associated with both online and face-to-face education. Thus, this study will have significant impacts not only on higher education delivery but also on the education sector of Bangladesh as a whole.

It will also inform the academicians and teachers whether CoI and I2 Flex Model can be applied together to justify the acceptance of blended learning as an effective model of learning, and hence, employment skills of Bangladeshi university graduates. This study can be a guide to investigate whether blended method can be applied to other disciplines such as numerical course, STEM course and medicine and health courses. It may also encourage researchers in future to investigate whether blended method can also be applied to the secondary and higher secondary education of Bangladesh.

Furthermore, researchers can refer to these findings as current literature for future research. The samples' experiences will provide foundational knowledge for future study in the field. Moreover, further research based on quantitative methodology could be conducted. A quantitative study could be done by having a control group and an experimental group for which blended learning can be applied.

One strength of the study was the use of a qualitative methodology, which helped the researcher to have an insight into blended learning (Gay et al., 2011). A case study design helped the researcher to gain a deeper understanding of the learners' experiences by using various sources of data: one-to-one interviews, artifacts, and documents. Yin (2014) suggested that the adoption of multiple data sources helps to ensure the validity of the research. That is, improving this research's validity was possible through triangulation and an important validated tool to collect data from 15 student participants and 2 teacher participants, and other textual documents.

From a theoretical perspective, this study confirmed the effectiveness of using a blended learning method to educate adult learners. Policy-makers, education administrators, instructors, and training institutions may all benefit practically from the research findings. The practical implications of this study might be meaningful to learners too. The implications of the findings may be useful to other course design formats if there is scope for the use of face-to-face interactions, videos, discussions, and online activities. The results of this study extend the theory of andragogy by recognizing that even though the adult learner is self-directed in a blended environment, face-to-face interaction is still prevalent. The real classroom ambience creates a sense of community among the teachers

and the students because in a blended environment, instructor engagement throughout the learning process is helpful and effective.

This study used the CoI framework (Garrison et al., 2000) to investigate the social connectedness among students in a blended learning environment. The lens of social, teaching, and cognitive presence was used to critically study the data collected. This study adds to the literature on this theory because it combines social connectedness and the CoI framework to better understand not only the connections among students but also how those connections contribute to students' perceived outcomes.

5.4. Recommendations for Future Research

One weakness of the study might be the use of the purposive sampling technique for participant selection. The participants were not selected proportionately giving parity to both the sexes and parental income groups. As only 15 students and two teachers were used as participants, more research involving a larger pool of students may yield meaningful findings and better research. Although common themes could be identified from all the data in this study, conducting research on a larger number of students would be beneficial from a statistical point of view.

Another study can be conducted using quantitative methods. The interview protocol in this study can be converted to a survey which would give a researcher the scope to collect data from a greater number of students. More research can be conducted by using more data collection tools. More research can be conducted by incorporating the

views of other stakeholders of higher education such as administrators, policy-makers, and blended course designers.

