

Policy on Blended Learning for Bangladesh

[REPORT OF WORKING COMMITTEE FOR PREPARING POLICY ON BLENDED LEARNING METHOD]



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1. Introduction

Blended learning is a combination of different delivery media or instructional methods, including face-to-face and online, virtual, or digital learning. Physical and virtual interfaces must complement each other for teaching and learning (Singh, 2021; Tayebnik & Puteh, 2013). Assessing the teaching–learning process for teachers and students in blended learning must also be objective and credible. Blended learning is becoming a preferred method of instruction because it personalizes learning, allows thoughtful reflection, and differentiates instruction from student to student (Rasheed et al., 2020). Currently, the blended learning practice refers to including online educational materials and opportunities for online interaction blended with traditional, classroom-based methods. It requires the physical presence of both teacher and student, with some elements of student control over time, place, path, or pace. Successfully applying information and communication technology (ICT) is of prime importance in teaching–learning and assessment systems. This document presents the dimensions, benefits, and challenges of blended learning and the blended learning policy that the University Grants Commission (UGC) of Bangladesh can adopt for the higher education institutions under UGC jurisdiction. The traditional and irreplaceable face-to-face teaching in Bangladesh has a legacy aligned with our existing education policy. Thus, modification or improvement of face-to-face teaching is out of the scope of this document.

2. Objectives

The following objectives were considered to introduce blended learning into the higher education institutions under the jurisdiction of the UGC of Bangladesh.

- Identify and define policies for using blended learning environments.
- Enhance effective student learning through engagement, and positively impact the student experience.

3. Blended Learning in Bangladesh

ICT has yielded considerable transformation in Bangladesh’s education system. We need to harmonize the ways we teach and learn from this transformed system. Information and its efficient communication have become a new form of wealth for national development, particularly in universities. The Vision 2041 plan of the Government of the Peoples’ Republic of

Bangladesh emphasizes ICT and involves a comprehensive action plan. To achieve this vision, universities must function as centers of excellence for acquiring knowledge, skills, and competencies that meet world-recognized benchmark requirements. The Strategic Plan for Higher Education (2018) urges reviewing the current teaching and learning methods. The strategic plan suggests following the recent advancement of ICT-based pedagogy to create an advanced e-learning environment. The COVID-19 outbreak has made this an even more critical need. This global pandemic has significantly affected universities due to the subsequent and sudden obligation to integrate ICT into their teaching–learning and assessment environment. The transformation of face-to-face teaching–learning and assessment practices into a blended form is still poorly defined and widely discussed, warranting the need for a well-framed implementation policy.

4. Definition and Dimensions of Blended Learning

In this document, *blended learning* is specifically considered a learning design that strategically, systematically, and effectively integrates a range of face-to-face, online, mobile, distance, open, social, and other technology-enhanced learning across physical and virtual environments. Student needs and support for desired learning activities and learning outcomes drives and informs this practice. Blended learning aims to personalize educational place, timing, pace, content, and assessment based on students' needs, courses, or programs. The extent of a student's personalization needs to be set based on learning outcomes.

Although blended learning was first introduced to connect traditional classroom teaching with e-learning activities such as asynchronous work (assignments learners access on their own time and at their own pace) (Singh, 2021), these days, a blended learning program may combine one or more of the following approaches.

- i. Blending offline and online learning: Learning can be combined over the Internet and in a traditional classroom setting (e.g., study materials might be provided online while lectures are delivered in the classroom).

- ii. Blending self-paced and live, collaborative learning: This type of blending may include a review of important literature on a regulatory change or new product, followed by a moderated live or online peer-to-peer discussion.
- iii. Blending structured and unstructured learning: Conversations and documents from unstructured learning events, such as meetings or emails, can be captured and incorporated with a textbook.
- iv. Blending custom content with off-the-shelf content: Off-the-shelf content is usually generic and inexpensive. Therefore, generic, self-paced content can be merged with live experiences in the classroom or online to improve the learning experience while reducing costs.
- v. Blending learning, practice, and performance support: This type of blending incorporates learning (organized before starting a new job-related task) with practice (using job-task or business-process simulation models) and just-in-time performance support tools.

The committee suggests beginning to blend onsite and offsite learning in accordance with certain stipulated policies and guidelines that ensure a credible assessment system in higher education institutions of Bangladesh. The current COVID-19 era is a challenge, but this document emphasizes sticking to this policy even in the post-COVID-19 era so that other dimensions of blended learning can also be successfully built. These can help improve infrastructure capacities and experiences via the education system of Bangladesh. Section 5 highlights these aspects.

5. Benefits and Challenges of Blended Learning

The main demonstrable objectives of blended learning are to increase learners' satisfaction and success and build better job competencies. Along these lines, blended learning must bring about the following outcomes.

- i. Incorporate online and offline events to enhance the reach of learning programs. A physical class lecture is only accessible to those who can be present at a specific time

and location, whereas a virtual event has no such limitations. Recording a lecture can help reach learners who cannot attend at a specific time.

- ii. Increase the chances of fulfilling course outcomes compared with fully online or offline courses (Tayebnik & Puteh, 2013): This requires integrating physical and virtual live e-learning environments to enable students to test immediately their learning in future work contexts and to collaborate with their peers.
- iii. Increase students' confidence and motivation by providing a variety of resources, thereby decreasing the dropout rate.
- iv. Use online materials and encourage active participation from students in the classroom to create a deeper understanding of the topics.
- v. Provide activities beyond the classroom to improve interactions between teachers and students.

The advantages of blended learning will not come easily. The challenges faced by programs adopting blended learning include the following.

- i. Blended learning gives students increased flexibility. Learners will have control over the time, place, and pace of their learning. However, deciding the appropriate amount of flexibility is challenging (Boelens et al., 2017).
- ii. The weaknesses of the learning environment must be overcome. A balance between human interaction and technology-mediated interaction needs to be attained (O'Connor et al., 2011).
- iii. Teachers and learners need access to technology to attend online activities. However, ensuring technological accessibility to learners can be difficult.
- iv. Technological illiteracy, anxiety, and unwillingness to learn can make it difficult for teachers to use blended learning.
- v. The cost of online technologies' maintenance and teachers' training make it challenging for educational institutions to implement blended learning.
- vi. A well-framed evaluation procedure must be present for programs that employ blended learning in the teaching-learning process. Evaluations should be used to demonstrate

the culmination of program outcomes (POs) at the requisite complexity levels by the graduating cohorts. Program educational objectives (PEOs) should be assessed based on the graduates' attributes and accomplishments, preferably those graduates who have worked for 3 to 5 years after graduation.

- vii. Blended learning programs should have a continuous quality improvement (CQI) mechanism. Such a mechanism should feature an established system for periodically compiling the level of attainment in terms of PEO, including a mechanism for tracking and obtaining feedback from graduates and their employers. These exercises' outcomes should be evaluated, and the identified shortcomings and limitations should be used to refine the blended learning system.

Although blended learning has its benefits, pitfalls and implementation challenges remain. We need to formulate a policy for Bangladesh that introduces blended learning into the country's education system while considering social, cultural, and economic conditions.

6. Blended Learning Framework

A selection of blended learning implementation frameworks exists, but not all frameworks are ready to be implemented in all environments. Bangladesh's higher education system is unique compared to any other country's system because of its people, budgetary allocation, and requirements. Indeed, Bangladesh's higher education system requires a separate framework to incorporate blended learning into it. An octagonal framework (Khan, 2005), is widely used in our societal context in other similar economies to implement blended learning programs (Thurab-Nkhosi, 2013). An octagonal framework consists of the following eight dimensions.

- i. Institutional dimension: This dimension regards the organization's preparedness in terms of administrative and academic matters and student services.
- ii. Pedagogical dimension: This dimension analyzes the consistency between course content and the learners' needs. In addition, the appropriate method to deliver the content is chosen.

- iii. Technological dimension: This dimension examines aspects related to technological infrastructure (e.g., infrastructure planning as well as accessibility to necessary hardware and software).
- iv. Interface design: An interface is concerned with the overall look and feel of a blended learning program, such as page, site, and content design, and navigation that enables learners to use and switch between different delivery methods.
- v. Evaluation: This dimension focuses on the blended learning program's usability. It includes assessing the learners as well as the instruction and learning environment.
- vi. Management: This dimension denotes maintaining the learning environment and managing content delivery.
- vii. Resource support dimension: This dimension handles online support and the resources required to create meaningful learning environments.
- viii. Ethical considerations: Such considerations are related to cultural and geographical diversity, etiquette, equal opportunity, and legal issues.

7. Blended Learning Policies in Bangladesh

Based on previous studies on experiences in economies similar to ours and considering the unique characteristics of the higher education system in Bangladesh, the following seven broad policies are proposed to introduce blended learning into universities under the UGC of Bangladesh.

- i. Universities should be ready to incorporate blended learning.
- ii. Appropriate pedagogy should be adopted for blended learning.
- iii. Necessary technological infrastructure should be put in place for blended learning.
- iv. Universities should ensure effective design of and support for blended learning.
- v. Proper assessment strategies relating to blended learning should be in place for content, courses, programs, students, and teachers.
- vi. Universities should manage developing and maintaining infrastructure to comply with blended learning requirements, with appropriate support and resources to create meaningful learning environments.

- vii. Ethics, culture, equality, and legal issues should be considered in blended learning.

7.1 Readiness of universities

The rules and regulations of any institution offering blended learning must be in line with those of the UGC. The institution shall have sufficient infrastructure, budget, and workforce to develop the educational ecosystem and incorporate onsite and offsite learning on a sustainable basis. The UGC will monitor and ensure effective blended learning practices across the country using its own contextual plan. Major aspects to be considered include the following.

- i. Laws, rules, and regulations: New rules/laws will be required to adopt mixing online and offline classes, and existing rules/laws for student assessment need to be updated. New conflict resolution regulations will also be required.
- ii. Infrastructure: Technologies such as learning management systems (LMSs), servers, the Internet, and devices should be in place to support blended learning. A separate center or institute may impart efficiency in an institution to introduce, manage, support, and monitor blended learning operations considering the respective institutions' missions and visions.
- iii. Resources: Necessary financial and human resource allocations must be made according to the individual institution's needs. Appropriate measures should be taken for research in learning and teaching to improve educational outcomes through a continuous quality-improvement system.

7.2 Adopting appropriate pedagogy

Universities may need to alter or update their existing pedagogical practices. Appropriate teaching and learning environments should be created considering students' various needs, such as physical challenges, cultural differences, and socioeconomic conditions, among others. Experiences from successful outside domains will be shared with institutional resource managers to enable them to prepare teaching resources and deliver these resources to

students. Facilities should be created for global and local collaboration on better resource and experience sharing. Major aspects to consider include the following.

- i. Teaching–learning preparation: Curriculum should be redesigned and updated periodically under the CQI system. Different media should be incorporated, mostly ICT and digital media, as a means of learning though effective knowledge delivery. As digital media accelerates and dominates blended learning, digital competency will be an essential attribute for teaching–learning preparation.
- ii. Experience sharing on pedagogy and technology: Faculties should complete adequate experience-sharing sessions with knowledgeable resource persons from within or outside the institution before conducting classes. Subsequently, periodic internal sessions within individual programs should be organized to introduce recent innovations, technologies, and methodologies.
- iii. Collaboration: Collaboration with other internal and external entities is required to update relevant knowledge and skills and to strengthen current practices.

7.3 Technological support

Universities should ensure required technologies, operational know-how and relevant support for teachers and students. This encompasses hardware, software, and Internet connectivity. Major technological infrastructure aspects include the following.

- i. For teachers: All teachers should be provided with necessary devices, software, and seamless Internet connectivity for smooth blended-learning operation. Institutions should also provide necessary technological support for content development such as digital studios.
- ii. For students: Students' access to LMSs and online classes must be ensured, even with limited Internet connectivity and basic devices. The teaching and learning methods should ensure equal opportunity for students with special educational needs (SEN).

- iii. For staff: A pool of dedicated staff from the ICT Cell should be trained to support the systems' proper functioning, such as server maintenance, cloud computing, performance monitoring, quick recovery, and backup.

7.4 Ensuring effective design and support

Design considers the overall look and feel of the blended learning components, such as webpages, websites, content, and navigation, and enables learners to use and switch between different delivery modes. Designs should be made based on user experience, considering Internet speed, available devices, etc. Adequate support for both LMS and content design and development is key to the success of any blended learning initiative. Major aspects to be considered shall include the following.

- i. Content Design: Content should be lightweight, interactive, sharable, and in chunks to ensure compliance with relevant learning theories and instructional models. The content must support multiple formats, platforms, and devices with equal effectiveness.
- ii. Site and Page Design and Navigation Pattern: The website and its pages or blocks should be simple, secure, accessible, and user-friendly. Templates could be used, but site loading times should be taken into consideration when selecting appropriate options. Navigation-cues, site layout/organization, and various templates should be visible and clearly outlined in the case of websites, pages, or content. The user's current location should be labelled appropriately.
- iii. LMS and Content Support: Apart from the IT support team, a pool of dedicated staff should be employed and trained to support teachers in content design and development as well as to assist students and teachers with LMS functionalities.

7.5 Content selection and assessment strategy

Each degree program shall have to adhere to explicit policies to select courses and course contents, assess cohorts' learning, and establish processes for continuous improvement. To

meet blended learning policy requirements, each program shall have its own institutional framework to determine processes and procedures. The following boundaries must be satisfied.

- i. Course selection: Programs' courses should be carefully selected for blended learning. Unless very unusual circumstances arise (for example, a pandemic situation), a certain proportion of a program's cognitive domain content may be selected for blended learning. The higher educational institutions shall determine this extent in accordance with the relevant Government Act(s) by which they are run to enact or revise the course curriculums. Credit hours can be a measure for meeting this limit. Scope of delivery in psychomotor and affective domains (which are mostly encountered in laboratory, sessional, practical, and hands-on sessions) should normally not be selected for blended learning because they most often require in-person attendance.
- ii. Course content selection: Blended course content should be selected carefully so that it can be delivered to the cohorts in an efficient and understandable manner and can be archived over online platforms in secured LMS. CQI efforts shall be put in place. The content shall be relevant to the course learning outcomes (CLOs). The contents that are better to deliver using online platforms and digital media shall be considered in the selection procedure. Availability of specialist faculties in some special areas and availability of unique contents may be considered in this regard for course content selection.
- iii. Cohort assessment: Assessments shall be conducted in each of the applicable learning domains, such as the cognitive (knowledge), psychomotor (skill), and affective (attitude) domains. Methods shall be in place for students with SEN.
- iv. Assessment tools: Appropriate assessment tools shall be used to evaluate student performance in classes as well as outcomes. The tools should be well defined, and how these tools are used should be well recognized to produce credible assessments. Assessments should be in place that go beyond traditional assessment methods, such as using open-ended or scenario-based questions, case studies, assignments, or projects. Unless very unusual circumstances arise, assessments in the psychomotor and affective domains will need to be minimized in the online environment.

- v. Considerations in CLO: All CLOs shall be assessable through the course content covered in regular face-to-face classes and blended learning. Unless unusual circumstances arise, such as a pandemic situation, the summative assessment (final exam) shall be a regular onsite assessment. Continuous assessments of blended learning contents (e.g., midterms, class tests, quizzes, and assignments) shall be evaluated online with prior approval of the academic committee, which shall create appropriate remote invigilation, online proctoring, or remote online proctoring procedures.

7.6 *Maregus* Developing and maintaining infrastructure

University management, with the help of the UGC of Bangladesh, should incorporate the proper organization and management of infrastructure, human resources, logistic support, performance appraisals, reporting and backup, a training calendar for staff, and compliance requirements. All services must be available through the institution. This requires transforming relevant policies into appropriate practices by following transparent and specific guidelines. Major aspects to be considered include the following.

- i. Teamwork through committees: Institutions should allocate specific responsibilities at various levels through committees, such as academic councils, senates, syndicates, academic committees, ICT cells, and the IQAC office. For instance, LMS maintenance is a gigantic task that requires a pool of qualified personnel to be engaged 24/7.
- ii. Program and course selection and approval: Institutions require an expert academic team to select programs and courses within programs to incorporate into blended learning. An appropriate body should approve the preliminary decision to forward the proposals to higher authorities for final approval.
- iii. Accountability: The concerned team within the university's blended learning center or institute should monitor the entire process and produce the necessary reports with supporting evidence in a predefined format that the regulatory bodies establish. All of the physical/digital evidence and reports should be preserved for an appropriate duration.

7.7 Ethics, culture, equality, and legal issues

The ethical issues regarding academic integrity and maintaining quality education are applicable for both students and teachers. There must be an emphasis on creating flexible learning environments for a cross-cultural context. Legal issues cannot be avoided in this regard. Major aspects to be considered should include the following.

- i. Ethics and culture: The teachers, learners, and staff should follow competent guidelines for ethics and cultural diversity that consider the usability, interactivity, access, delivery, learning style, and content preparation of blended learning to maintain quality education. The contemporary legal framework will be applicable, where appropriate.
- ii. Equal opportunity: Equal opportunity for access to technology must be ensured to resolve the digital divide in society, including among students with SEN.
- iii. Grievance committee: The action team provides up-to-date guidelines for grievances ethics and the like. The committee practices and executes solutions to legal issues faced in blended learning within the contemporary legal context. The team arranges periodic training to update the concerned personnel.
- iv. Feedback and improvement: Periodic feedback from teachers, students, and staff on ethical, cultural, and legal issues is considered when executing improvement plans.

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