Blended Learning Landscapes

A Project-based Experience in West Bengal

Dr. Anirban Ghosh Dr. Papiya Upadhyay Dr. Ritu Mathur Mitra



NETAJI SUBHAS OPEN UNIVERSITY

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Implementation of Blended Learning in Higher Education Institutions in West Bengal under the CEMCA- NSOU Project

> Dr. Anirban Ghosh Dr. Papiya Upadhyay Dr. Ritu Mathur Mitra



NETAJI SUBHAS OPEN UNIVERSITY DD-26, Sector-I, Salt Lake, Kolkata-700064 Blended Learning Landscapes A Project-based Experience in West Bengal

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NETAJI SUBHAS OPEN UNIVERSITY

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Foreword

Greetings from Netaji Subhas Open University!

It is my great pleasure to present this book titled "*Blended Learning Landscapes: A Project-based Experience in West Bengal*" which is the outcome of the workshops conducted at four locations across the state of West Bengal.

We see technology bloom and flutter further ratifying technology-enabled learning to become the way of education. 21st-century learners are more self-determined, aspiring, and choosy about their learning trajectory. As a result, the traditional pedagogy stands critically challenged. Blended learning (BL) is possibly the best technology enabled learning strategy. It embroiders a smart mix of online and F2F instructional strategy, facilitation techniques and tools. NEP 2020 enlightens few initiatives and BL- Models which are some of the prime initiatives. *In this perspective, CEMCA and NSOU teamed up for a series of collaborative workshops under the project, "Implementation of Blended Learning in Higher Education Institutions (HEIs) in West Bengal"* through Enhancing Capacity of Teachers engaged in HEIs, during 2021-2022. In this rapidly changing world, the roles of HEIs are to evolve to cope up with the forthcoming challenges in a holistic manner.

Thus, teacher development programmes (FDP/PDP per se) need to be restructured to align with educational priorities and orient towards future challenges and prospects. The observations and outcomes as experienced from the six workshops across the state of West Bengal, trained over 263+ higher education teachers on implementation of BL in respective HEIs with the given context and resources. Adoption of BL in HEIs paves for more joyful and engaging learning atmosphere and learners' performance. Teachers find larger space for creativity by transferring the mechanical aspect of workload through technology integration. As a transformational pedagogy, it enables dialogue with peers and community members. The art, science, and craft of teaching-learning are weaved effectively by braids of dynamic curricular transaction. Professional teaching knowledge is built on a dialogue between theory and practice and developed through individual and collective reflection on a growing repertoire of experiences.

I feel quite content to express that the Project Team members of NSOU took the initiative to record the experiences perceived, collected and eventually collated in the form of a publication. This perhaps is one of the first sets of project-based study in the State of West Bengal in enhancing capacity of teachers for implementing BL in their respective HEIs. It is a sincere collection of affordances, pedagogical effects, epistemic, up-skilling and ethical possibilities as well as blind spots and lacunae in conceptualizing and sensitizing BL and BL ecology in HEIs.

I quote from UNESCO-Reimagining Future, 2021, "Teacher education cannot disregard the relevance of digital culture for how knowledge is produced and circulates, and for the changes it is bringing to human life and to the planet".

I believe the significance of transformative education and training for a repertoire of open pedagogy are the threads that stitch our collaborative responsibilities and the fabric of our future.

With best wishes,

Kolkata 20th August 2022 Professor (Dr.) Subha Sankar Sarkar Vice-Chancellor Prof (Dr.) Anirban Ghosh M. Com, MBA, Ph. D. Director-CIQA Director (i/c), SPS & SVS Email : anirban1972@gmail.com





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My umpteen thanks are due to the Regional Director, Kalyani RC & Deputy Directors, Jalpaiguri and Durgapur RCs, NSOU for their untiring support and logistics assistance in organizing the face-to-face workshops at respective campuses.

I genuinely thank all the Principals/Head of the Institutions/Directors of HEIs and Universities for nominating faculties/scholars/academics for the Three-Day workshops organized across the state of west Bengal.

I acknowledge the contribution of the Project Coordinators for their constant involvement and drawing out the best with all spirits throughout the project.

270+ participants, I admit your whole-hearted participation in making the project successful and accomplishing the outcomes.

Last but not the least, I am thankful to all staff members, faculty colleagues, officers and officials for their direct and indirect support and cooperation in the proceedings of the project.

Finally, we thank M/s Saraswati Printers for their sincere efforts and labour in bringing out this book.

Kolkata 20th August 2022 Professor (Dr.) Anirban Ghosh Project Director, NSOU-CEMCA Project & Director-CIQA, NSOU

Executive Summary

The COVID-19 pandemic has changed education forever and also reshaping learning. Teaching Learning Assessment Process (TLAP) has undergone into a sea of changes. The world is changing constantly due to the evolution of digital technologies and the emerging importance of leveraging technology for teaching-learning at all levels from school education to higher education. Technology has a huge impact in educational institutions and has eventually put the traditional methods into a challenging state. Nonetheless, there are demands for both technology and traditional learning methods. As a result of this, the art of combining digital learning tools with more traditional classroom face to face teaching gave birth to the term "Blended Learning" (BL). We all are discussing about blended learning today in our academics and research. Blended learning is not a mere mix of online and face-to-face mode, but it refers to a well-planned combination of meaningful activities in both the modes. In this context nurturing 5 E's, (Engaging, Equalizing, Enriching, Enabling and Empowering) in the teachers to better equip with emerging technologies in their transaction of classes and creating, designing, developing the online courses for better learning, better employment, better livelihood, better citizen and for better and effective teaching-learning-assessment processes.

As a felt need and dire necessity, Netaji Subhas Open University (NSOU), Kolkata with the active and generous support of Commonwealth of Learning-Commonwealth Educational Media Centre Asia (COL-CEMCA), New Delhi came together again in succession to undertake a capacity-building skill-based project titled 'Implementation of Blended Learning in Higher Education Institutions in West Bengal (Enhancing Capacity of Higher Education Teachers)'. It was successfully conducted and accomplished during the period, November 2021-May 2022. More than 270 academics were sensitized, equipped and oriented with BL and its implementation in HEIs, given the pretext and context of TLAP.

The project confined the domains/themes specific for capacity building of higher education teachers. These notably included: Training on ICT tools, use of OER, sensitization of Open Educational Resources [OER] & Creative Commons Resources [CC], orientation of various software, like Video / Audio Development Tools, Learning Management System and Understanding blended learning course design and development, use of LMS, Flipped Classroom & Learner Centric MOOC Pedagogy [LCM], Interactive Presentation Tools & e-Assessment Tools, Creating learner centric video lectures, Using Google Classroom & Moodle LMS for Delivering Blended Learning Courses, Conducting Student Assessments through Moodle, Google Classroom. Creation of e-Content: videos, preparation of Blended approach materials, integration of various contents: video, PPT, text, Interaction: synchronous & asynchronous, environment etc. The considered objectives of the project were to improve the knowledge and skills of teachers/academics in higher education to develop and offer Online/Blended Course, to enable the staff/faculty members to the process of planning, designing, developing and delivering online courses, to adopt Learning Management Systems (LMS) like Google Classroom & Moodle Platforms as an adjunct to face-to-face teaching and to teach in a fully online or distance learning context, to find out the prospects and challenges of providing online/blended learning in the context of Higher Education Institutions in West Bengal. The project-based study was orchestrated through series of workshops/capacity building programmes in face-to-face (adhering to Covid-19 protocol of the state)/online/blended mode at four regions viz. Durgapur RC, Jalpaiguri RC, Kalyani RC and Headquarters at Kolkata. The participants constituted teachers/faculty members/academics of NSOU and other universities/colleges located in and around Regional Centres (RCs), especially reaching out to the LSCs under the 4 RCs. In order to reach the expected outcomes of the project design, various tools were administered for monitoring and evaluation, workshop feedback surveys etc. Direct interactions with the participants through semi-structured interviews and workshop feedback questionnaires were carried out by the facilitators and the project team members. Such analytical framework assisted in coding the domains and themes of BL and its sensitization among the academics in right direction.

The project recognized and abridged the following outcomes:

- Blended learning training, capacity building program enabled the faculty members to develop course materials, e-content, videos in blended learning or to develop their courses online to engage students in learning.
- Hand-holding sensitization was provided to the participants on the technical know-hows of the use of techniques available in instructional technologies, ICT tools, various software for e-content development, LMS system, like Moodle to develop unique courses for many kinds of institutions.
- An exposition to a gamut of strategies of course modalities, including self-paced independent study, cohort-based courses with student-instructor interaction, and highly collaborative student-centred courses.
- The academics were empowered and adept in planning their course and teaching through Online Mode/blended mode.

- Development of Action Plan for BL for respective HEIs to which the participants represented was formulated as per the given BL template.
- The pedagogical array subsisted with the emergence of Heutagogy as a method for lifelong learning. A MOOC on 'Foundations of Heutagogy' was developed and launched through SWAYAM and NSOU LMS.
- The feedback obtained from the participants across the state signed that NSOU and CEMCA would widen such joyful learning to enhance the capacity of teachers as it incurs highly repeated value to the academics and academia. As a reminisce, this robust project-based study is the first of its kind in the state of West Bengal till date amidst various challenges of COVID pandemic.

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CHAPTER 1

Prospects and Challenges in Higher Education

Higher Education system refers to academic institutions such as universities, professional and general colleges, research institutions and technical institutes (UGC, 2003). In a vibrant system, institutions of higher learnings are enablers of research, innovation, and entrepreneurship, addressing problems facing society, nations, and preparing individuals for lives and careers. Thus, they play a very important role in shaping our future.

The quality of higher education is a multi-dimensional construct, which should encompass all its activities and functions- viz teaching and administering academic programmes, research and scholarship, students, staffing, buildings, facilities, equipment, services to the community, and academic environment. It can also be defined as multi-dimensional, dynamic, multi-level and concept that associates to the contextual settings of an educational pattern, to the institutional objectives and mission, as well as to the specific standards within a given institution, system, programme, or discipline (UNESCO, 2009).

The increasing importance of Higher Education Institutions (HEIs) has changed the demographics of learning and practice. Previously it was very difficult for the majority of the population to get access to the higher education, but the changing trends are becoming a source of its accessibility. Higher education was considered as luxury before but during the past few decades major proportion of the society is becoming aware of its importance; therefore, it is becoming more of an inevitability given the increasing demand. This emerging tendency of international academic and student mobility has given rise to the phenomena of internationalization and globalization.

Information technology has impacted the working of various industries around the world but especially it has brought dramatic changes to the education institutes. These changes have affected teaching and learning, institutional management, administration and finance, research outcome and process of dissemination of knowledge as well as student life. Effective use of technology has been a core competence for many industries from the last decade and its importance is continuing to upsurge in the future as well. There is a greater need to emphasize on the fact that information technology should be well placed to serve all the requirements of higher education institutes to successfully compete beyond the national boundary. Distance learning programs initiatives are one of the predictors of effective utilization of information technology to gain competitive edge in the education sector. These distance learning programs are helping to diminish traditional geographic barriers in the learning process and trying to provide cost effective ways to earn international degrees.

Attracting population from diverse backgrounds may initially seem appealing but it requires a huge investment of time, energy, expertise and capital to manage. Higher education in a country like India puts huge emphasis on-

- Regional languages vis a vis English language
- Lots of effort is required to be invested in designing a competitive curriculum.
- Employing competent staff with the capacity to work in such intensive and diverse situations
- Bridging gap between the institute and students.

Challenges amounting can be listed as-

- Most faculty lack quality in teaching, research and training in 21st century bearing environment.
- Outdated and rigid curricula.
- Absence of employer engagement in designing course content and skill development.
- Very few opportunities for interdisciplinary learning

Though higher education in India has come a long way since independence, it is currently moving at a slow pace and is experiencing a crisis. Arguably, the greatest challenge facing higher education corroborates to the fact that most faculty lack quality in teaching, research and training. Other issues which compound the problems include:

- Pedagogy and assessment are focused on input and rote learning; Students have little opportunities to develop a wider range of transversal skills, including critical thinking, analytical reasoning, problem-solving and collaborative working.
- High student-teacher ratio, due to the lack of teaching staff and pressure to enroll more students.

- Divide between research and teaching; lack of early-stage research experience.
- An ineffective quality assurance system and a complete lack of accountability by institutions to the state and central government, students and other stakeholders.

The role of universities/HEIs in shaping the students' future depends on transparent, progressive and Socially Responsible Educational (SRE) system. In order to achieve this, we need good governance in the higher education system which would encourage optimisation of resources and infrastructure (Open, 2019).

This enormous demand for higher education is putting great pressure for institutions and systems which are required to provide higher education of relevance and quality to the many students who are attempting to better their lives through higher education (Sonn et al., 2021).

Digitalisation is not a novelty in higher education. But this cannot be denied that most conventional educational institutions did not have online educational platforms at the time pandemic was declared. Online education became centrestage with pandemic. Online education refers to the educational use of technological tools and means, as well as the Internet. However, the digitalisation of higher education institutions cannot be reduced to online education, as the latter is only one of the elements involved in the digital transformation of universities. Some researchers have argued that innovation, internet accessibility and the ever-increasing growth of technology has increased the motivation for online education at the turn of the millennium, while others have argued that achieving sustainable online education is questionable, since it closes the possibility of a face-to-face interaction between students, on the one hand, and between students and teachers on the other hand.

A recent study made a distinction between planned and appropriate online education, and courses taken in response to a crisis. These researchers referred to online education during the pandemic as 'emergency distance learning', which is different from high quality and effective online education. Digitalisation and on-line learning are related to digitalisation and life enhancement skills in the context of the sustainable development. The latest concept also takes into account environmental concerns, the first appearance being spotted in The World Charter for Nature. The notion is also connected with United Nation's Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs). In this approach, sustainable development suggests the aim for a combination of economic development, environmental sustainability and social inclusion, though the specific objectives may differ globally, between and within societies. SDGs are based on five pillars: people, prosperity, peace, partnership and planet. The sustainable goals also include the completion of secondary education, some of the variables being indicators of tertiary education. The role of technology tethering education fosters education of the millenials.

CHAPTER 2 Introduction to Blended Learning

The world is changing constantly and the various domains are also influenced by the change. The sphere of education is no exception. The evolution of the digital learning platforms has a huge impact in educational institutions and has eventually pushed the traditional methods to the back seat. However, there are demands for both technology-driven and traditional learning methods. As a result of this, the art of combining digital learning tools with more traditional classroom face to face teaching has given birth to the term "Blended Learning" (BL).

BL is not a mere mix of online and face-to-face mode, but it refers to a wellplanned combination of meaningful activities in both the modes. The blend demands consideration of several factors, mainly focussing on learning outcomes and the learner-centred instructional environment. With the advent of digital technologies and the emerging importance of leveraging technology for teaching-learning at all levels from school to higher education, the NEP 2020 recommends for use of blended models of learning. The NEP-2020 states that while promoting digital learning and education, the importance of faceto-face in-person learning has to be fully recognized. Accordingly, different effective models of blended learning have to be identified for appropriate replication for different subjects and contexts.

The important features of Blended Learning environment are:

- Increased student engagement in learning.
- Enhanced teacher and student interaction.
- Responsibility for learning.
- Time management and flexibility.
- Improved student learning outcomes.
- Enhanced institutional reputation.
- More flexible teaching and learning environment.

- More amenable for self and continuous learning.
- Better opportunities for experiential learning.

The advantages of BL for students include increased learning skills, greater access to academic resources and information, improved satisfaction and learning outcomes, and opportunities both to learn with others and to teach others.

It is an instructional methodology, a teaching and learning approach that combines face-to-face classroom methods with computer mediated activities to deliver instructions. This pedagogical approach means a mixture of in person and online activities and the integration of synchronous and asynchronous learning tools, thus providing an optimal possibility for the arrangement of effective learning processes. Thus, Blended Learning is the term given to the educational practice of blending digital learning tools with more traditional classroom teaching. In a true blended learning environment, both the student and the teacher should be physically located in the same space to be effective. Despite this, the students should have access to the digital tools in order to exert some influence on the pace or subjects of their study. The flipped classroom model is a similar program that aims to utilise technology in order to rearrange the learning experience and maximise the effectiveness of valuable face to face time in the classroom. In a flipped classroom program, students are encouraged to access digital learning materials via a cloud-based learning platform during their convenient time. Resources such as video lectures, podcasts, recordings and articles are provided in order to transfer the necessary knowledge from teacher to student before each class. This in turn stimulates the teachers to guide the learners in their activities, lead discussions and facilitate engagements.

Key benefits of BL include:

- Virtual collaboration as a learning practice: Individual students work together virtually in an intellectual endeavour for better learning outcomes.
- Greater flexibility: Students can learn anytime, anywhere, with or without in-person support, thanks to technology-enabled learning (any mode, any language).
- Increased interaction: BL allows for increased student-to-student student-to-teacher and teacher-to-teacher interaction.
- Enhanced learning: Diverse learning activities increase student engagement and help them learn more deeply and understand concepts instead of rote learning.

• Developing virtual citizenship: Students practice social and academic projection in an online community of inquiry, more deeply and understand concepts instead of rote learning.

Roles of Teachers in BL Environment (BLE):

Technology can also help teachers better understand student needs and help them learn. Teachers who skillfully employ modern technologies can advance their level of expertise in the subjects they teach. Teaching students facts and concepts is part of blended learning, but deep learning—true understanding of concepts- is also important. Rather than simply sharing content and grading papers, blended learning teachers must:

- Embrace learning: An effective blended learning teacher can access, analyze, and aggregate data; use data to plan for individual students, groups of students, and the whole class; use benchmark tests and other assessments to guide instruction (individual, group, class). Many blended learning programmes require teachers to take an online class to learn their new roles and understand online learning. With proper training, a "traditional" teacher can learn to analyze data and maximize the blended learning model.
- Adapt to new teaching methods: To teach multiple subjects, a blended learning teacher should focus on academic intervention and enrichment based on data.
- Lead: Teachers should model learning and show students how to find information and answers in a blended learning environment (or ask the right questions); manage project-based learning activities keep students engaged and motivated. The teacher must interpret and analyze data, while students must learn to reason, integrate data, and apply knowledge.

Prerequisites of designing a BLE:

In a BL paradigm, a facilitator is someone who helps students learn. Why aren't words like "teacher" or "lecturer" used? The term "teacher" or "lecturer" is no longer appropriate in blended learning. In a traditional classroom, teachers are in charge. They are knowledge dispensers. In blended learning, teachers are no longer the main source of information. Teachers should be called "facilitators", "coaches" or "mentors". They now have more diverse and difficult missions than ever. A facilitator in blended learning plays varied roles with changing context and resources in hand.

Designing a Blended Learning:

Extending the present online program or launching a new one will involve much research, thought, and preparation on the part of the institution's leadership team. A critical initial step is to explicitly describe the academic objectives and to provide quantitative metrics for evaluating the implementation's effectiveness. After establishing these objectives, the leadership team may begin planning for personnel, professional development, curriculum, facilities, and technology, among other things. Investing significant time and money in this upfront preparation can assist instructors in creating a curriculum that enables students to achieve academic achievement and excellence.

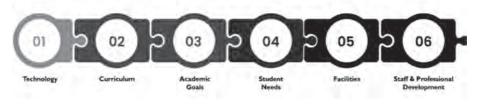


Fig-1: Steps of designing a BL paradigm Source: CEMCA-NSOU BL material, 2021-2022

Check-list for BLE/Paradigm

ICT tools for BLE

When teachers are effective at integrating technology into the curriculum, technology plays a significant role in student learning. ICT has also become an essential part of Implementation of Blended Learning in the teaching-learning interaction, as demonstrated by the use of interactive digital whiteboards in place of chalkboards and the use of students' own cell-phones or other devices for learning during class time. When teachers are digitally literate and trained to use ICT effectively, these approaches can help students develop higher order thinking skills. These provide students with creative and individualized ways to express their understandings, and prepare them to deal with ongoing technological change in society and the workplace. Numerous ICT tools are available for developing courses, producing examinations, preparing multiple-choice questions, collecting student feedback, and conducting evaluations. The majority of ICT tools are quite user-friendly and

offer various customization possibilities, allowing the instructor to build their own material. Students can listen to / follow along with teacher-prepared lessons while still doing their assigned tasks.

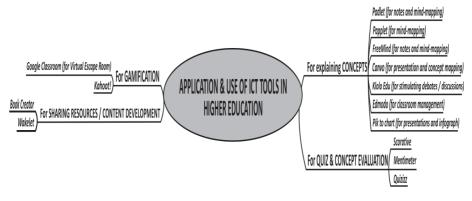


Fig-2: Relevant ICT tools for application in BL paradigm

Source: CEMCA-NSOU BL material, 2021-2022

Utilizing technology to teach is not simple. There have been several researches for into the integration of technology into the teaching-learning process, with the results consistently indicating that the methodologies used should be rethought, that there were no significant improvements in educational attainment, that teachers were not comfortable with the use of these technologies, and that there was a significant lack of resources in institution, among other things. It is critical to consider how information and communications technology (ICT) should be integrated into the classroom context, which varies from discipline to discipline and from content to content, depending on their own objectives and the context in which the institution and classroom teacher are embedded. While web and ICT tools might enhance a teacher's teaching process, a combination of conventional and modern teaching tools would have a more practical influence on students' brains, with PowerPoint, audio-visual aids, and knowledge upgrades available with a simple click of the mouse. Apart from the addition of animations and transitory effects, it is possible to create well-developed lecture notes as well as teaching models in a short amount of time, therefore saving both time and energy.

CHAPTER 3 Capacity Building: The Game Changer

In its genesis, the discourse on and concept of capacity development has traditionally been closely associated with development cooperation. Capacitybuilding is defined as the process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world. The UNDP was one of the forerunners in designing international interventions in the category of capacity building and development. In the early 1970s, the UNDP offered guidance to its staff and governments on what it called "institution-building" which is one of the pillars of its current work and is part of a category of "public administration reform". The UNDP integrated this capacity-building system into its work on reaching the Millennium Development Goals (MDGs) by the year 2015. The UNDP states that it focused on building capacity at the institutional level because it believed that institutions are at the heart of human development, and that when they are able to perform better, only then they can contribute more meaningfully to the achievement of national human development goals. ("Capacity building," n.d.)

Enhancing capacity is an approach to monitoring and evaluating the capacity building. Many research project reports review that, engaging in capacity building projects actually monitors program objectives, the links between projects and activities of an organization and its objectives, a program or organization's measurable indicators, data collection, and progress reports. In this context, USAID noted two types of indicators for progress: "output indicators" and "outcome indicators." Output indicators measure immediate changes or results such as the number of people trained. Outcome indicators measure the impact, such as laws changed due to trained advocates. Both the "numbers of people trained" and "laws changed" are, however, just inputs or intermediate inputs and do not measure actual improvements in "performance" in terms of measurable outcomes of public agencies that are the definition of capacity building. Capacity building has been called a buzzword within development which comes with a heavy normative load but little critical interrogation and appropriate review. The term capacity building is usually 'loaded with positive value' ("Capacity building," n.d.). However, thinking of capacity building as simply training or human resource development is insufficient. In line with its usefulness and executioner benefits, capacity building is regarded as one of the five functions that UNESCO performs to fulfil its mandate. UNESCO urges to contribute to global efforts for education and capacity-building through workshops, training courses, educational programmes and partnerships with professional and educational institutions.

The pandemic caused due to outbreak of Covid-19 disrupted the world in numerous unthinkable ways. If we look back on the past two years and the harsh repercussions of the pandemic that is still continuing, it is evident that one of the most impacted sectors was education. Neither the world nor educational institutions were prepared to embrace the shift to online platforms brought on at lightning speed. Afflicted with incompetence, unawareness and ICT skills, the teachers were in a very vulnerable state, trying to cope with their responsibilities through stop gap pedagogy, often referred to as Emergency Remote Technology. Therefore, to shoulder the digital pedagogy, technopedagogic approaches took the centre-stage, Blended Learning being one of the potentials. It was felt that an orientation of BL and an enhanced capacity to professional development of teachers became prerogative. HEIs must adopt measures on the Capacity Building for one of its prime stakeholder–the teachers.

To stimulate the present need and reinforce for building the capacity of higher education teachers in implementation of Blended Learning in Higher Education Institutions, NSOU and CEMCA tailored the collaborative initiative. The two institutions calibrated working on the identification of new measures for a responsible and sustainable restart of teaching-learning-assessment ecosystem in the post-pandemic global education. The rebound of BL-concept, strategies, tools and attitude should be an opportunity to spur innovation and test new approaches to support learning communities in the recovery. It may also rivet in transforming education destinations away from outdated and unsustainable models.

CHAPTER 4 Genesis of the Project

The scenario of higher education is rapidly changing and the need of the hour for accelerating the global competition, increase in employment opportunities, for ensuring inclusive and equitable quality education to promote lifelong learning opportunities for all and increase in quality of learning experiences is to change, the way we are approaching to higher education in the lines from universities to industry connect and industries to university connect for learning, unlearning and relearning in the new Mantra of 'skill, reskill and upskill' for empowering, enabling teachers, researcher and students and youth in higher education to equip and sustain in global market competitions. The outbreak of COVID-19 has resulted in a paradigm shift in education throughout the world and India in particular. Online/ blended teaching learning has become need of the hour to sustain our education system.

Blended learning is a teaching and learning approach that combines traditional classroom methods with ICT-mediated activities. This pedagogical approach combines face-to-face and online activities, as well as synchronous and asynchronous learning tools, allowing for the most effective learning processes. Blended learning is the practice of combining digital learning tools with traditional classroom teaching. In a true blended learning environment, both student and teacher should be present. Moreover, students should be able to use the digital tools to control the pace and topics of their learning. Blended learning bridges the gap between traditional method and online classrooms by combining physical and digital learning (eLearning). Teacher training is one of the thrust areas of NSOU through which the university organizes orientation programmes, capacity building programmes for teachers, Training of Trainers (ToTs) to ensure the quality of teaching especially in ODL and digital learning environment. Under the auspices of this collaborative venture, NSOU and CEMCA jointly took the responsibility to enhance the capacity of the higher education teachers of the state of West Bengal for effective teaching in the post pandemic period when the on-campus activities are being resumed slowly. Now the educators have many options of teaching viz. face to face and digital (synchronous and asynchronous) system. Depending on the situation and with available resources and infrastructure, the teachers and educational institutions may combine or blend these methods for effective teaching and learning for the better outcome.

The collaborative initiative 'Implementation of Blended Learning in Higher Education Institutions in West Bengal, was carried out through Enhancing Capacity of Higher Education Teachers' ardently by NSOU and CEMCA.

About the Collaborative Institutions

Netaji Subhas Open University (NSOU)

Netaji Subhas Open University (NSOU) is the premier State Open University in India and only Open University in West Bengal established in the year 1997 [W.B. Act (XIX) 1997] and recognised by UGC-DEB and RCI. NSOU is offering Under Graduate, Post Graduate and Ph.D. programmes and also a good number of vocational courses. NSOU is the first Open University in India to apply for NAAC A & A process and the first State Open University in India to be accredited by NAAC with Grade- 'A' in its first cycle. NSOU operates through three Regional Centres (Kalyani, Durgapur, and Jalpaiguri) and 175 Learner Support Centres across the state of West Bengal. The University is now implementing the ICT integrated pedagogy to deliver its programmes. A good number of blended Vocational and Educational Training (VET) programmes of the University also help the youth to skill and/or reskill themselves to remain relevant and productive in the continuously changing job market.

About Commonwealth Educational Media Centre for Asia (CEMCA)

The Commonwealth Educational Media Centre for Asia (CEMCA) serves as the regional educational media centre of Commonwealth of Learning (COL), Vancouver for Commonwealth Asia, established at New Delhi in 1994. CEMCA promotes the meaningful, relevant and appropriate use of media and technology to serve the educational and training needs leading to Sustainable Development through learning in Commonwealth member states of Asia. The Govt. of India by a Gazetted Notification, dated 10th February 2000, notified CEMCA as a diplomatic mission under provisions of the United Nations (Privileges and Immunities) Act, 1947.

To make the most of these new possibilities, forward-thinking institutions will experiment with different teaching methods until they find one that works best for them. New technology necessitates a large investment (in more ways than one). If an approach does work, no school or university wants to lose time or damage its reputation. Blended learning, for example, has been proven to be effective, so it is not just a matter of throwing resources at the problem. Innovators who bring technology into the classroom and meet the challenges of blended learning head on will be rewarded. When it comes to prioritizing the IT department of a university or college, now would be the perfect time to get started. In the coming years, IT personnel will be needed for more than just mending broken projectors. Because ICT is a crucial support for classroom teachers, it should be considered as an opportunity to test new teaching methods as soon as they emerge. Indeed, a new approach is required. Think of educational ecosystems, not individual apps or platforms, as the best way for educators to think about their work. Blended learning relies on this.

Towards the end of 2021, everything began to return to normal. Increasingly, students were allowed to return to the on-campus. There has been a growing interest among educators and students alike in developing hybrid systems that would combine the greatest features of online and face-to-face training. Blended learning has become second nature to educators because of the convenience and adaptability it offers. As a result, they have more access to the Internet's richness of information. It is now easier than ever for educators to create interesting courses that allow students to connect with varied educational resources. When it comes to teaching, it is understandable that educators want to keep their choices open for the future.

Resultantly, students are used to seeing traditional curricula supplemented with audio-visual content from YouTube, Khan Academy, and other online sources. Students who are shy or introvert may find virtual channels to be a welcome break from the social stresses of schooling, allowing them to express themselves more confidently. Students, like instructors, hope to maintain these advantages in the future. In order to meet the needs of both students and teachers, blended learning systems are ideal and are a gateway to enriched and joyful learning experinces.

Members		
Project Adviser	Dr. Manas Ranjan Panigrahi, CEMCA	
Project Director Professor Anirban Ghosh, NSOU		
Facilitator/Mentor	Mr. Purandar Sen Gupta, Master Trainer, Dr. Shaunak Roy, Facilitator, Professor Anirban Ghosh, NSOU	
Project Coordinator	Dr. Ritu Mathur Mitra, NSOU Dr. Papiya Upadhyay, NSOU	

The Project Team

CHAPTER 5

Organisations and Modalities

The teachers are the domain experts of any education system. They are the compass and pillars of the teaching-learning-evaluation system of any academic ecosystem. Many challenges and opportunities arose during the restricted phase of the prolonged pandemic. In fact, the coexistence of pandemic and overcoming challenges heralded a new dawn for shaping the modern educational system. The project was taken up to study and examine the implementation of Blended Learning in the higher education institutions in West Bengal. This NSOU-CEMCA Project intended to enhance capacity of higher education teachers across the Learner Support Centres of NSOU under three Regional Centres and Headquarters located in various districts of West Bengal.

5.1 Aims and Objectives

The following objectives were formulated to conduct the project:

Overall objectives

- To improve the knowledge and skills of teachers/academics in higher education to develop and offer Online/Blended Course.
- To enable the staff/faculty members to the process of planning, designing, developing and delivering online courses.
- To adopt appropriate ICT tools and learning platforms as an adjunct to face-to-face teaching and to teach in a fully online or distance learning context.
- To find out the prospects and challenges of providing online/blended learning in the context of Higher Education Institutions in West Bengal.

Objectives of the Project

To make the Higher Education Teachers -

- Cognizant with the utilitarian features of different outcome-focused models of Blended Learning.
- Apprised with relevant ICT Tools that can be applied by them for inducing collaborative learning, for enriching the cognitive acumen of the students

and for facilitating the learners in deciphering complex thematic components.

- Equipped with the techniques of applying effective digital tools that can be supportive to interactive teaching -learning method.
- Rational with the globally reputed learning theories and instructional models that are highly conducive in teaching the adult learners.
- In achieving conceptual clarity and operational dexterity regarding the concept and process of Facilitation.
- Enlightened with the participatory and inductive learning methods that are covered by Facilitation.
- Well-informed with diversified strategic interventions that are applied while facilitating the adult-learners.
- In understanding, applying and analyzing the multi-faceted role of Facilitation in Competency Development.

5.2 Organization:

In order to carry out the project, a series of workshops were organized and conducted as per objectives laid down.

There were 5 workshops held for capacity building programmes, four face-toface at four regions viz. Durgapur RC, Jalpaiguri RC, Kalyani RC and Headquarters at Kolkata and one in blended mode owing to the sudden outbreak of Omicron induced lockdown across the state. The duration of each workshop was three days. The 6th Workshop was one of outcomes of the 5 workshops held across the state of West Bengal.

Schedule of the Six Workshops

Sl. No.	Workshop Venue	Date	Mode
1	Durgapur RC	17, 18 & 19 December 2021	Face-to-Face
2	Jalpaiguri RC	07, 08 & 9 January 2022	Blended
3	Kalyani RC	25, 26 & 28 February 2022	
4	NSOU HQs	25, 26 & 27 March 2022	Face-to Face
5	Jalpaiguri RC	08, 09 & 10 April 2022	
6	NSOU HQs	26 [.] 27 May 2022	

Table 1: Schedule and Venue of the Workshop

Nature of the Participants

The faculties of NSOU and other universities/colleges that are Learner Support Centres of NSOU and other institutions/academics located at the particular region were invited to participate in these programmes. Teachers of various levels viz. Associate Professors, Assistant Professors, State Aided College Teachers and Research Scholars were trained under this project during the three day workshop at each venue. The face-to-face workshops were organized in the respective campuses of the University following the COVID Appropriate Protocol (CAP) announced by the government. In response to our invite, the participants attended the workshops at their respective zones in spite of Covid-19 pandemic since all necessary measures were taken by NSOU to maintain the Covid protocols. These events were organized by the University on-campus in face-to-face mode for the first time since March 2020 when the announcement of lockdown led to the closure of all the educational institutions including higher educational institutions. We were overwhelmed to see the enthusiasm among the participants who took the workshop very seriously as the agenda of the workshop were very relevant and important for the teachers in the post- Covid era. Out of the total participants, 26% were female which also met of the agenda of COL-CEMCA to ensure the gender participation in the event.

Venue	Male	Female	Total
Durgapur RC (F2F)	41	10	51
Jalpaiguri RC (Blended)	36	9	45
Kalyani RC (F2F)	37	17	54
Headquarters (F2F)	55	25	80
Jalpaiguri RC (F2F)	29	8	37
Headquarters (F2F)	28	15	43
Total	198	84	310

Table 2 : Participants Count-I

Modalities:

In a bid to attain the expected training outcomes, all the workshops were conducted through various activities and interventions. The facilitators fostered interactive and collaborative environment through-

- Dialogue driven intervention, where there is greater interaction between an Educator/Facilitator and the participants.
- Participants were often clubbed into various groups. The members of each group were allocated with critical tasks. The members of each group learned by discussion, interaction, joint planning and joint execution of the tasks entrusted to them.
- Critical tasks were also applied to gain diversified situational experiences. The experiences become the source of learning to the participants. This fostered experiential learning.
- The participants were encouraged to introspect and release their pent-up creative potential.
- Facilitators appreciated each and every participant for every correct response. This type of reinforcing stimulus boost up the morale of the students.
- Facilitators made a concerted effort to create a relaxed, stress-free and conducive ambience in the learning platform, where every participant could contribute and develop with ease and comfort.
- Facilitators also probed effectively into the emotional status of the participants.
- Hand-holding with templates for orienting to create BL courses and develop action plans for their respective HEIs.

5.3 Tools and Techniques

In order to collect, measure and analyze precise insights for research using standard validated techniques, the project team ensured number of tools and techniques to evaluate their hypotheses on the basis of gathered information, responses and feedback during the workshops. The following architecture were orchestrated to draw out information, interaction and experiences among the participants, facilitators and organizers:

- building up rapport with trainees,
- reinforcing their confidence level,
- triggering achievement motivation within them,
- ensuring their proactive participation in the learning process,
- engaging them with goal oriented critical tasks,

- developing their analytical acumen,
- assisting them to solve problems by unleashing their creative potential,
- empowering them to overcome obstacles by unleashing their critical thinking acumen,
- facilitating them to achieve pre-determined goals through concerted effort of the other members in the group.

In order to facilitate and enhance the capacity of the teachers in the realm of Blended learning, contextual facilitation tools and techniques were adopted. These are-

- Lecture
- PPT Slide Presentation
- Situation Driven Role Enactment
- Situational Analysis, Planning & Problem Solving
- Focused Discussion
- Creative & Analytical Exercises
- Probing & Brainstorming
- Quality Circles
- Participatory Planning
- Human Process Laboratory (Miniature Version)
- Design Thinking
- Cognitive Apprenticeship
- Fish Bowl Exercise
- Role Playing
- Gaming
- Interaction
- Blended Learning Course material preparation
- Hands-on activities
- Questionnaire to assessment of Workshop Feedback
- Questionnaire for evaluating effectiveness of implementation of BL/ Lessons learnt
- Development of action plan template to create Institutional BL policy and strategies

In addition to these tools of facilitation, few strategies were attested during the workshops-

- Modelling
- Coaching
- Scaffolding
- Articulation
- Reflection
- Exploration

The learning inputs with ICT tools were-

ICT Tools & Soft- ware	Effective Learning Models	Cognitive-Behavioural Interventions
 Padlet Popplet Free Mind Kialo Edu Mentimeter Quizziz Book Creator Virtual Escape-Room 	 Successive Approximation Model Individualized Instruction Model Problem Based Learning Model Discovery Learning Model Action Learning Model Collaborative Learning Model Learning Retention Model Component Display Model Elaboration Model Cognitive Load Reduction Bloom's Taxonomy & TLO Generative Learning Model Backward Design Model 	 Design Thinking Mind Mapping Affinity Diagram Venn Diagram Outcome Mapping Force Field analysis Identification of Critical Success Factors in Success Story Case Analysis & Problem Solving Logical Sequencing Logical Framework Analysis

Table-3 : ICT Tools and learning inputs

5.4 Workshops

All the five workshops were conducted according to the schedule and organized activities scripted beforehand.

Day-1

Inaugural Session:

It included welcome address, introduction of the workshop theme, presidential address and vote of thanks.

Technical Sessions:

Session 1 was an orientation and a brief 'Introduction to Blended Learning' by the Project Director. The session reverberated that blend necessitates consideration of learning outcomes and a learner-centred instructional environment. As digital technologies emerge and become increasingly important in teaching and learning at all levels from school to higher education. The NEP 2020 recommends the use of blended learning models and recognizes the importance of face-to-face in-person learning while promoting digital learning and education.

Session 2: 'Ice-breaking Session on Competency Mapping - Master Trainers and facilitators in a warming-up session, divided the participants into groups and used 'competency mapping' to elicit the psycho-social competencies of the participants as the true identifier of their respective personalities, which they in turn could use later to understand their learners better. Human process lab coupled with appreciative enquiry technique was energetically performed by the participants. Performance analyses exposed the competence by focusing on past achievement, tracing performance analyses unravelled a competence. The mentors further added that competency is causally related to Performance. Facilitation is an intricate and elaborate process which encapsulates various psychosocial interventions that accelerates collaborative learning to a great extent. To be a successful Facilitator, it is desirable to get endowed with a set of Psychosocial Competencies. These Psychosocial Competencies in turn make it easier for a Facilitator to make judicious utilization of the Participatory Training Methods and the multiple Psychosocial Interventions.

Session 3: Fish Bowl exercise & 'Introduction to Blended Learning & Orientation to "Edutainment" as a Pedagogical Tool in Blended Learning'-

The resource persons oriented the participants towards blended learning as a tool of joyful learning i.e., Edutainment, so that they could make their classes entertaining to their learners. The participants were grouped into 6 clusters with 12-13 participants in each cluster. Mr. Purandar Sengupta engaged the participants of each and every group to perform the fish bowl exercise. It deciphered the operational pros and cons leading to organizational development and also served as a potential tool for metacognitive domains.

Session 4: ICT tools in a Blended Learning Context, Introduction to ICT Tools & its Relevance in Higher Education Mind Mapping using ICT Tools using hands-on approach) - In the last session of the first day, the participants were given an idea of the relevant ICT tools which they could use in their classes. They were trained for 'mind mapping', using these tools for divergent as well as convergent thinking. Facilitators emphasized that when teachers are effective at integrating technology into the curriculum, technology plays a significant role in student learning. ICT has also become an essential part of the teachinglearning interaction, as demonstrated by the use of interactive digital whiteboards in place of chalkboards and the use of students' own cell phones or other devices for learning during class time. When teachers are digitally literate and trained to use ICT effectively, these approaches can help students develop higher order thinking skills, provide students with creative and individualized ways to express their understandings, and prepare students to deal with ongoing technological change in society and the workplace. Additionally, a survey was done to ascertain the list of ICT Tools that instructors often utilize for classroom teaching-learning. The participants were advocated that numerous ICT tools are available for developing courses, producing examinations, preparing multiple choice questions, collecting student feedback, and conducting evaluations.

<u>DAY 2</u>

Session 5: Intervention Strategies like parentheses, paraphrasing, mnemonics, probing through role play was very captivating as the participants had to enact to display and demonstrate these strategies. The master trainers explained that as a part of component display theory for retention of learning, these strategies are very effective. These interventions are not meant to assess knowledge but it unleashes the hidden potential of the learners in a learning environment. It also fosters Meta-cognition elements.

Session 6: 'Facilitation with Participatory Tools and Methods'- These two interesting sessions were introduced to the participants like, participatory analysis, motivational success stories, design thinking, situational planning among other innovative teaching-learning strategies.

Session 7: 'ICT Tools in a Blended Learning Context, Gamifying the classroom, Creating Quizzes, and Creating Infographics'- These ICT tools were explained in details by providing many examples and their role in collaborative and participatory learning. These were introduced and vividly demonstrated as: ICT tools for explaining concepts, gamification, quizzes, assessment and sharing contents or resources.

Session 8: 'Activity Sessions'- Learning by activity proved to be very popular with the participants. The energy during the Escape Room Game was palpable. The link to venture into the game was posted in the dedicated Workshop WhatsApp group for participation. Each and every participant responded with enthusiasm to crack the game. This led to joyful learning. The process to create and develop escape room and Quizziz in Google forms were explained through presentation and hands-on.

<u>DAY 3</u>

Session 9: 'Effective Learning Models in Higher Education and development of Course design through blended approach' - The participants were introduced to Situation-driven learning. Resources related to this were shared beforehand by the mentors for readiness among the participants. It was ideated properly through role-playing among participants. This session instilled means of upskilling problem-solving behaviour among learners. This session also surfaced the ideas of direct and indirect counselling process between facilitator and learner. In addition to this, various learning models were discussed which could be used by them effectively to facilitate and engage their learners. The next phase was development of course design through blended approach. The participants were distributed among 10 discipline/subject specific groups. A course design template was provided to each group. The group members designed a subject specific course and was submitted to the mentors. During the entire group activity, the resource persons/mentors diligently facilitated the session to enrich the experiences of the participants and supported them with assimilation of ideas and methods.

Session 10: 'Discussion on Programme Output, Q & A/Wrapping Up': Master Trainers and resource persons encouraged the participants to discuss the outputs that had emerged during the 3 day-long sessions. The learners made many relevant points and their queries were answered with expertise by both the resource persons.

Wrapping Up-The Workshop concluded that the sessions were fruitful in training the participants to engage in dialogue driven intervention, participatory learning, collaborative learning, discovery learning, and experiential learning and last but not the least all culminating into joyful learning.

CHAPTER 6

Analysis of Feedback

The feedback is significant as it genuinely keeps everyone on track, helps avoid major mistakes, form better relationships, motivates participants, promotes personal & academic growth by establishing a Growth mind-set, enables a friendly learning environment among all partakers, facilitators and organizers to set the standard and last but not the least, instils trust amongst the team.

At the end of each workshop, a structured questionnaire in a google form was circulated among the participants for their feedback. There were three sections viz. i) personal information and certain parameters for evaluating the ii) workshop and iii) program outcome. The feedback of each workshop was analyzed before the next workshop to improve the content and change the methodology appropriate for the specific target group of different zones as per the local needs. 84% participants submitted the online form on the basis of which the following inferences have been drawn.

A. Feedback on the Workshops

1. How effective was the program in achieving the learning objectives?

Like every program, the present project also had some psre-determined learning objectives which has been given in the earlier chapters. About 79% participants opined that the learning objectives have been achieved par excellence while 19% opined that the workshop was swell designed to achieve the learning objectives (Fig-3).

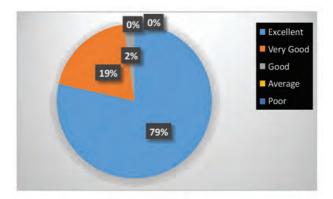


Fig.3 : How effective was the program in achieving the learning objectives

2. Feedback on the different parameters/ areas

To make a workshop effective and useful, the components/ parameters of a workshop are designed in such a way, that the outcome of the workshop can easily be achieved. The feedback on the parameters shows that almost all the participants agreed that the workshop was engaging, relevant and useful in today's context of digital learning environment. The learning materials distributed during the workshop were also relevant and useful. The activities carried out through live demonstration were the special attraction of the workshop. The participants demonstrated various activities from their own life through group activities. They also opined that the trainers were very cordial, and knowledgeable. The ICT tool used in the workshop was very effective and user friendly Fig.4).

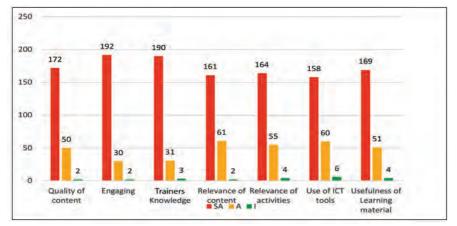


Fig.4: Feedback on the different parameters/ areas

B. Feedback on Program Outcome

To evaluate the program outcome, following four parameters were presented before the participants in a five-point scale as Excellent (E), Very Good (VG), Good (G), Average (A) and Poor (P).

- i) Knowledge on Blended learning,
- ii) Knowledge on Pedagogy, Andragogy and Heutagogy,
- iii) Knowledge on ICT Tool,
- iv) Knowledge on Learning Interventions.

The Google form was framed to assess the knowledge of the participants before and after the workshop, whether there is any knowledge gained in the abovementioned areas after the workshop. The figures show there is a significant change in level of knowledge in different domain viz. knowledge on blended learning, knowledge on pedagogy etc., knowledge on ICT Tool and knowledge on learning interventions.

1. Knowledge on Blended Learning

Figure : 5 depicts that after the workshop the percentage of the participants who had average/ poor knowledge on blended learning had come down from 32% (average, poor) to almost nil (0.44%). After the workshop, it was evident that almost all the participants are now capable to understand the concept of blended learning (Fig-5).

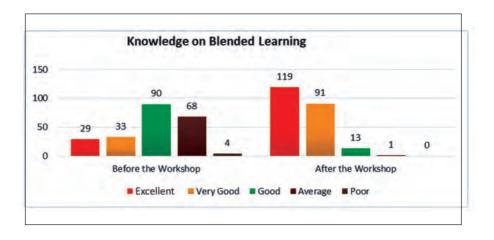


Fig.5 : Knowledge on Blended Learning

2. Knowledge on Pedagogy, Andragogy & Heutagogy

The project was carried out to include the Higher Education teachers working at different HEIs across the state of West Bengal as capacity building in the area of teaching methodologies/ pedagogies etc. The Figure 4 shows that there is a remarkable improvement in the cognitive level of the teacher-participants specially the concepts like andragogy, heutagogy etc. Now the teachers are well versed with these terminologies which they may follow in their professional life more effectively.

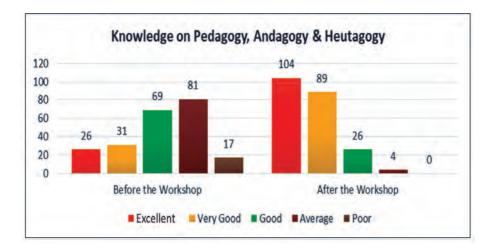


Fig.6 : Knowledge on Pedagogy etc.

3. Knowledge on ICT tools

Due to advent of the Information and Communication Technology (ICT), the learning style and attitude of the 21st century learners have been noticed. Now the students are taking the benefits of flexible learning of anywhere, any time learning and also flexible in terms of choice of their courses. Without the knowledge of ICT tool, the teachers may not be able to reach their students with their own academic content in both on-campus and off-campus settings. The Figure 7 shows that the workshop helped the teachers to gain knowledge in using ICT tool for synchronous and asynchronous mode of teaching. It is evident that there is a significant increase in the number of participants (from 33% to 90%) who have gained knowledge in using ICT tools. Along with other ICT Tools, PADLET was demonstrated in detail- how to use it, its effectiveness etc., with hands on training.

Considering both the Figures 5 and 7, it may be inferred that the teachers are now more conversant with ICT tools which they may use to apply for effective implementation in a blended learning mode.

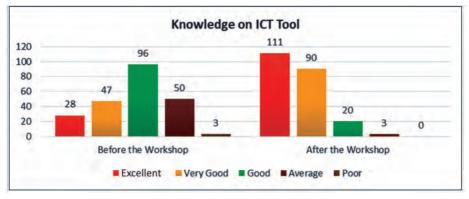


Fig.7 : Knowledge on ICT Tools

4. Knowledge on Learning Interventions

The important feature of the project was to engage the participants in various activities and to show how the different teaching models are being used by the teachers at different situations in local context. The group activities were the key behind the success of the project. In each workshop, participants were divided in groups and requested to present their views/ opinion on a particular topic/ situation etc. through their group leader. These were based on collaborative approach. Story telling was another key factor for engaging the participants all through the workshops. It is evident from the figure 8 that after the workshop, 91% of the total participants agreed that there is a positive impact of learning intervention to engage and retain the students' attention in the teaching-learning process. The joyful learning, collaborative learning, participatory learning, group activities are the other key factors of success behind the blended learning which can be implemented through judicious use of available ICT tools.



Fig.8 : Knowledge on Learning Interventions

5. Would you recommend this Capacity Building Program to your colleagues?

On the basis of feedback received, it may be inferred that there is a significant improvement in the knowledge base of the teachers who participated in the project. As outcome of the project, we expect that in one hand they will disseminate this knowledge among their colleagues at their work place and on the other hand they will implement various educational theories and instructional model (pedagogy/ andragogy/ heutagogy) in blended mode to impart their knowledge among their students with the help of modern ICT tools. At the end of the questionnaire, the participants were asked whether they will recommend this capacity building program to their colleagues. The response was overwhelming and all the participants appreciated this collaborative initiative of NSOU and CEMCA for the betterment of teaching learning environment in post pandemic period (Fig.9)

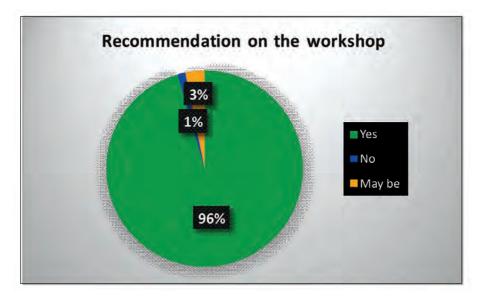


Fig.9 : Recommendation on the workshop

CHAPTER 7 Outcome of the Project

The five workshops brought about an elucidative journey with the higher education teachers on the board. Through facilitation and enthusiastic participation, the outcomes enunciated were:

I. Four Week MOOC on Foundations of Heutagogy:

In a Blended Learning (BL) paradigm, heutagogic environment is impressed. Through facilitation, the effectivity of BL is commensurate with the effectuality of learning outcome. A facilitator dispenses knowledge in a community of participation. A facilitator in a blended learning plays many roles. It is also important to consider some of the learners' skills that support online and blended learning success. Learners who succeed in an online or blended learning programme will need self-motivation, self-efficacy, time management, and communication skills. Considering these abilities, as well as when arranging essential assistance to ensure the success of life-long learners, self-determined learning and justified facilitation by the facilitators/coach/mentors, takes a centre stage-the Heutagogy. As ushered from the project, that was translated through five workshops, the deliberations proposed a preliminary insight about the new amendments and incorporations in the NEP 2020, the new proposals by the UGC and how the future is moving towards heutagogy, from a pedagogical paradigm. Heutagogy is principled on self-determined learning and has a symbiotic relationship with technology. Distance education is in a unique position for creating learning environments for support-ing a heutagogical teaching and learning approach, as well as for contributing to further re-search into heutagogy. Hence a 4-week MOOC on Foundations of Heutagogy has been developed and has been launched through SWAYAM and NSOU-LMS.

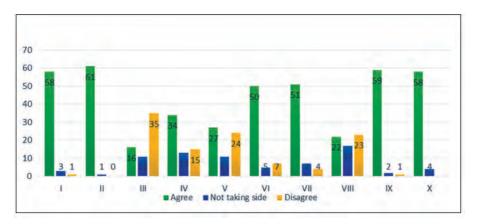
II. Effectiveness of the lessons learnt

In order to know\ the exactitude of the competence and skills acquired During the workshop and its implementation in the real context, a sample of

62 Higher Education teachers (out of 267) as partakers of the workshops, were surveyed after 20 days from the last workshop held. The objective behind this time gap was to assess the participants' retention of knowledge acquired during the workshop. Assessments of the acquired lessons during the workshops by the participants were captured through a questionnaire. The Google form responses to 10 close-ended statements and 02 open-ended questions are clubbed as common reflections of their views and actions hitherto.

A. The Ten Close-ended statements were as follows:

- I. In implementing blended learning, technology is directly tied to learning objectives (Agreed: 94%).
- II. Using technology and varied instructional strategies constitute blended learning environment (Agreed: 98%).
- III. Blended learning does not allow for technology being used for multiple opportunities in the classroom at the same time (Disagreed: 58%).
- IV. When technology is just inserted randomly, there is typically no plan for assessment to demonstrate student growth and learning (Agreed: 55%).
- V. While preparing a blended context, it is not possible to personalize lessons for each student, or at least differentiate among groups of students (Agreed: 44%).
- VI. It is found that blended learning describes the instructional practice of blending technology with traditional learning (Agreed: 81%).
- VII. Psycho-social competencies are easily mapped among the students in a classroom (Agreed:82%).
- VIII. Flipping the classroom is a herculean task (Disagreed: 37%).
- IX. The technical skills and intervention strategies learnt helped to develop BL courses/documents for the learners (Agreed: 95%).
- X. Appreciative Inquiry, Scaffolding, Positive Reinforcement & Behavioral modelling are easily executed through role-plays (Agreed: 94%).



The Figure-10 depicts the analysis of their responses:

Fig.10 : Effectiveness of lessons learnt

The overall responses underpin the fact that the 3-day workshop provided an effective discourse on Blended Learning prerequisites and enabled to a great extent with the skills for delivering intervention strategies and competence to use facilitation tools. The platform also provided to build upon a culture of open-mindedness towards a blend of online/offline components in a context-specific learning situation. To cater to the heterogeneous learner base at the HE level, the blend has to be orchestrated with quality parameters to meet the educational objectives in an ever-changing society.

B. In respect of the two open-ended questions, the following common interpretations have been received from respondents that speaks for itself:

Table 4 : Resp	ponses from	Open-ended	Questions
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Open-ended Questions	Responses by the participants	
1. How do you strive for consistency between online and face-to-face communications and with your course documents? (Express your views within 100 words)	 Consistency is followed in the following manner: Keeping interaction with the students daily about their class in students' WA group and giving them reminders either with texts or audio. Asking to prepare oral presentations or giving them 	

assignments and mentioning the format of the same in a well-defined manner.
3. By posting study materials either in ppts or PDFs in English as well as Bengali to make it easy and more appropriate for them to study and understand.
4. Last 10 minutes of the class are kept for conversation with students both in online and offline mode to help them shed their inhibitions and provide scope to speak up about themselves or about class/ syllabus-oriented issues.
Content analysis is needed to decide on which content to be covered through online and which through face to face. Specially where collaboration or hands on activities are needed face to face is essential. But in only theoretical discussion online can be adopted.
1. Effectively communicating with students
2. Error prevention
3. Proper Engagement with the student
4. Provide clear instructions to the students.
A blue print of how to make a bridge between online and face to face communication. Then make a minute- to-minute plan of each sub unit and analyse which type of communication will be best suited for development of specific concept. For face-to-face communication inquiry-based learning, mind mapping techniques and collaborative learning. In online communication engagement with the help of virtual reality-based learning and also a discussion forum is encouraged. With the help of social media, online homework could be given; classwork online, by taking online test specially the short questions type through google form, quizzes etc.
Online studies and face to face communication should always go hand-in-hand for a perfect experience of blended learning. The classroom learning can be enhanced using computer-based presentations and animations, which aids in the understanding of intricate biological processes. Also, examinations and evaluations can be carried out using the computation tools which will be both interactive and interesting for the students.

	The classroom should be equipped with technical gadgets to communicate with the students easily and the students also should be sound in their technical knowledge do that they can easily access the facility. Combination of face to face in-person classroom activities with online activities purposefully, meaningfully and appropriately only based on the need of the context by maximizing the benefits and minimizing the disadvantages of each facilitation mode.
2. Enlist the difficulties you faced during creating a blended learning environment. (Express within five points)	Blended learning is the only way to overcome the problem related to two extreme poles of a sphere. Not only that, but also it is a great opportunity to the modern facilitators for playing their roles in the context of new arena of educational thought process. Only BL has the advantages of synchronous as well as asynchronous mode of curriculum transactions. Through this way a facilitator can easily cope up with online and F2F communication as a leading teaching-learning opportunity.
	Reflective pedagogy is implemented with facilitation tools
	1. Asynchronous Learning vs Synchronous Learning One of the most significant differences between face-to-face learning and online learning is that face-to-face learning is synchronous, or done at the same time. All instructors and students/classmates are present in face-to-face learning. With online learning, however, that is not necessary. Online instruction can be either synchronous or asynchronous.
	2. Delivering Knowledge vs Facilitating Learning In face-to-face classes, instructors are usually just delivering knowledge, and then assessing the understanding of that knowledge at a later date. This is compared to online learning, where instructors are seen more as facilitators of learning - helping their students understand the material through provided online materials.
	3. Teacher vs Child-Led Advancement While both online and face-to-face learning can have components of both student-led and teacher-led curriculum, online study lends itself better to student-led advancement and learning. In online study, students can decide for themselves what they want to dig deeper on, and spend more time learning.

 •
4. Discipline and Self- Motivation Some may say that it is harder to succeed in online education, and that is because you must be highly self-motivated and disciplined. In online learning, no one is keeping you on track - you must be your own motivator, time keeper, and disciplinarian.
5. Measuring Performance In both face-to-face and online learning, instructors must have a way to measure performance. This is typically done by way of submitting assignments, administering tests, exams and quizzes, and creating points for participation. Participation and class 'attendance' is harder to measure in an online learning environment.
Introducing flipped method: sending self -made educational video, then taking the offline classes, sending study materials from various books and sources through Google classroom and whatsApp group, also, taking evening classes for working students through Google meet.
We can progress our consistency through a clear objectivity of outcome of course and keep in touch with the learners with the various lucrative interesting teaching learning facilitative tools and interventions strategies.
There are a variety of ways to enhance consistency in online courses and programs including using templates (e.g., syllabus, course shell), using course development standards or guidelines, creating course policies such as standardized response or feedback times, or offering training to faculty teaching online.
BL is quite developed and advanced technique in educational field.
'I would like to be facilitator rather traditional teacher. So, I will guide my students at the class room & also advise them through the online platform for the sake of their academic benifits.in my view simultaneously, we should guide our students through the class room study & students friendly online process. For example, during offline class we can do board work but through the online mode we can go for the presentation (ppt, screen sharing etc.) for the better understanding of our students'.
 environment. Introducing flipped method: sending self -made educational video, then taking the offline classes, sending study materials from various books and sources through Google classroom and whatsApp group, also, taking evening classes for working students through Google meet. We can progress our consistency through a clear objectivity of outcome of course and keep in touch with the learners with the various lucrative interesting teaching learning facilitative tools and interventions strategies. There are a variety of ways to enhance consistency in online courses and programs including using templates (e.g., syllabus, course shell), using course development standards or guidelines, creating course policies such as standardized response or feedback times, or offering training to faculty teaching online. BL is quite developed and advanced technique in educational field. I would like to be facilitator rather traditional teacher. So, I will guide my students at the class room & also advise them through the online platform for the sake of their academic benifits.in my view simultaneously, we should guide our students through the class room study & students friendly online process. For example, during offline class we can do board work but through the online mode we can go for the presentation (ppt, screen sharing

A monitored distribution of time, planning and execution can enhance better learning and teaching environment. thus, one can strive for a modelled pattern of consistency between online and face to face.
Giving the pdf of the standard books. Providing different links of you tube on the specific topic in the WhatsApp group. By doing classes through Google meet as well as in offline mode. Providing practical in face-to-face communication as well as in you tube where that topic has been discussed. With knowledge and facilitation skill learnt, presenting documents with offline and online mode both at the same time.
1. Availability of proper infrastructure for all the students.
2. Not always possible to assess the outputs from students attending classes online.
3. Sometimes different online platforms become difficult to use due to the subscription charges.
4. Students may mostly prefer online mode as they can join from the comfort of their homes. But this hampers the strengthening the practical skills.
Time management with the course content and Selecting between the two modes for delivering the particular topic to the maximum student. Lack & Application of ITeS & limited knowledge of modern updated software.
1. Mode of Communication or interaction
2. Delivery of e content
3. Background and Diversity of learners
4. Objective and outcomes of the course
5. Technical knowledge of how to blend the course content.
Working with a large group of students in blended learning method has its challenges. Both students and the facilitators need to have access to the same tools which might not be possible in many situations. Lack of network Inefficiency Lack of adaptiveness No human contact Lack of interest A new idea has implementational limitations.

Difficulties faced:
1. Students feel lethargic and show disinterest in studies or classes due to sudden flipping of learning.
2. Students were unaware of blended learning and the situations did not permit them to cope with the digital mode.
3. Consistent low attendance of a few students delayed in completing the required syllabus because previous lectures needed to be repeated more than a couple of times.
4. Joyful learning was indeed a herculean task due to the deficit in digital devices on their part.
1. Need more improvement technical gadgets.
2. Students should be oriented properly regarding this blended mode of study.
3. Subject wise orientation programme should be conducted.
1. Technology issues
2. Maintaining students' progress
3. Students' participation
4. Digital gap 5. Inadequate training
1. Students concentration.
2. Insufficient technical skills of both students' and Teachers'.
3. Infrastructural obstacles.
4. For large no of students it will be difficult to maintain or map psycho-Social competency.
5. Students acceptance of new method replacing traditional method.
Application of Technology, Skill and knowledge, infrastructure, available internet, time duration. Students' attention being distracted by circumstances and other factors from home
1. Technology is Expensive. Many traditional classrooms have only one computer present for student

and teacher use.
2. Technology Issues.
3. Adapting Content for Blended Learning.
4. Decreased Motivation.
5. Weakened Relationships.
Communication, poor network, smart phone availability, electricity, casual approach of students.

From the above responses, the overall views/opinions that elicited the difficulties faced in implementing BL echoed-

- 1. Device availability/Infrastructure/Physical facilities
- 2. Time management
- 3. Technical skills on the part of teachers and learners
- 4. Knowledge of BL on the part of learners
- 5. Frequent orientation on BL is necessary to equip the stakeholders
- 6. Cost effectiveness
- 7. Network issues
- 8. Positive mind-set needs to be nurtured more
- 9. Resistance to change/adaptation
- 10. Knowledge of updated software and its use

III. Draft BL Course (content) Design developed by the participants using Template

Through a group activity that required the participants to create a course, they were segregated into different groups based on the similar subject domains such as Languages, comprising Bengali, Hindi, English etc., Education, Life Sciences, Physical Sciences, etc. The participants developed a two-week course design that they would teach in the blended mode, based on a template that was pre-shared with them (Table-5). The course comprised of a blend of synchronous and asynchronous events, wherein content would be developed and shared with the target learners accordingly. The course design templates designed by the participants were delineated subject-wise. A total of 8 courses were developed by the participants in the Workshop held at Jalpaiguri RC, NSOU, resulting in an aggregate of 13 courses from various subjects.

Table-5 Course Design Template with Blended Learning Approach TITLE OF THE COURSE

Please include the title of the course you shall be teaching here.

Duration/Timeframe of The Course : Two Weeks (Mandatory)

DESCRIPTION OF ASYNCHRONOUS LEARNING

(INPUTS & ACTIVITIES)

Text Based inputs	Video Based Inputs (with YouTube link)	Interactiv	ve Activities
Please specify which topics (and its contents) you	Please specify which topics (and its contents) you shall be facilitat- ing through video-based inputs. You are required to create a short	Interactive Activities with the Mentors Please specify	Interactive Activities with Peers
shall be facilitating through text- based inputs.	YouTube video, that explains any content that is to be covered by you. After the video is taken, you can share the link of the video in this segment. Please ensure that you specify the Course Name, Module Name and Specific Topic you have included in the video.	which interactive activities you intend to conduct through WhatsApp, Padlet and/ or other digital tools.	Please specify which interac- tive activities you intend to conduct through WhatsApp, Padlet and/ or other digital tools.

Course Content / Topics to be covered

Please include the Topics/ Modules you shall be covering in the two weeks in this Segment.

DURATION OF THE PERIOD FOR	DURATION OF THE PERIOD FOR
ASYNCHRONOUS LEARNING-1	SYNCHRONOUS LEARNING-2
Out of the 2 weeks of the proposed course,	Out of the 2 weeks of the proposed
what would be the duration of the course	course, what would be the duration of
you shall be covering for asynchronous	the course you shall be covering for
learning?	synchronous learning?

Facilitation		Problem Solving		Interim Assessment	
Topics	Process of Facilitation	Topics	Process of Analysis and Solution	Topics	Method
Which topics shall be covered synchronously?	How would the topics be facilitated?	Topics Specify the topics here.	How would you analyse the problems raised and offer solutions?	Specify the topics here.	How would you assess the students?

DESCRIPTION OF SYNCHRONOUS LEARNING (INPUTS & ACTIVITIES)

- 1. Synchronous classes run in real time, with students and instructors attending together from different locations.
- 2. Asynchronous classes run on a more relaxed schedule, with students accessing class materials during different hours and from different locations.

CHAPTER 8

Development of Action Plan for Blended Learning

Reflections from the Five workshops:

Educators have been working hard to ensure that their students are engaged and learning digitally, and they are dealing with a flood of emotions while transitioning from remote to hybrid and/or fully in person. Blended learning (to be referred as BL) methodology generic enough to be applied in different type of courses at the University: theoretical / practical, compulsory / voluntary attendance, for students with / without computer skills and for students with intrinsic / extrinsic motivation. The best way to support all learners during this time of uncertainty and flux between the remote and in-person worlds is to continue planning for remote learning—because it's the only way to remain consistent, accessible, and nimble enough to ride the changing tides, while also leveraging all of the skills the students gained in the new self-directed world of learning. A series of five workshops held at the three RCs and HQs of NSOU documented that the key attributes to BL environment are:

- Increased student engagement in learning
- > Enhanced teacher and student interaction
- Responsibility for learning
- Time management and flexibility
- Improved student learning outcomes
- Enhanced institutional reputation
- More flexible teaching and learning environment
- More amenable for self and continuous learning
- Better opportunities for experiential learning
- BL shifts the teacher's role from knowledge provider to coach and mentor, 'a guide by the side'
- Facilitation tools and techniques for Andragogy, Heutagogy, Cyberogogy and Peerogogy towards an eclectic strategy

Rationale of the 2-day workshop on 'Development of Action Plans for BL practices in Higher Education'

Many factors must be considered when choosing how to blend in-person and online teaching and learning activities. In some cases, most interactions between students and the teacher, as well as the direct delivery of instruction, take place in person in the classroom, while materials and possibly some additional activities are delivered online. In other cases, most of the class activities occur online, with occasional meetings in person to solve problems and support community building. In some blended arrangements, students may choose which activities to complete online and which to complete in a classroom. Ideally, blends are personalised/contextualised so individual students/Institution have the blend that best fits their life circumstances and learning needs.

Due to the effectiveness of these workshops, the Project team continued the successful outcomes and lessons learnt for a rational implementation of BL practices. For this, a road map to institutionalize the BL practices, the **2-day** workshop on 'Development of Action Plans for BL practices in Higher Education' was conceptualised.

Objectives of the Workshop:

This workshop focused to delineate strategies and implementation on blended learning with the following objectives-

- To plan, implement, coordinate and monitor operationalisation and quality assurance of the programmes in HEIs and technology-enabled learning
- > To develop an Institutional action plan for BL practices in HEIs
- To institute a policy that can ensure quality learning and bridge gaps between facilitator and learner with changing context
- > To prepare a draft plan of action, appropriate for individual institution with the help of a standard template

Methodology:

- Human Process Laboratory
- ➢ Lecture
- PPT Slide Presentation
- Focused Discussion
- Activity and participatory approach

- Brainstorming
- Quality Circles

Proceedings of the Workshop

Day-1- Inaugural session

In the Inaugural Session, welcoming the august congregation and setting the tenor of the workshop was coalesced. The theme and activities of the Twoday workshop were fortified and elucidated. This was followed by Keynote speech, Special addresses, Presidential address and clinched with motion of thanks.

The workshop progressed through the following technical sessions:

Session-1: Blended Learning in response to NEP 2020: (BLP in NEP 2020 and visions for the future, barriers and successes within Indian context) :

The tenets of NEP 2020 were articulated the need for technology-enabled learning for realising the goals of education for sustainable development was vocalised.

Session-2: Blended Learning Initiative:

The mentor facilitated the session with a snap recap of the BL workshops held earlier and ensured that all participants are sensitised on Blended Learning training of higher education teachers of West Bengal (all five trainings of CEMCA-NSOU). He categorically presented the intervention strategies used by some of the HE teachers who were participants to the five workshops.

Session-3: Participant's reflections on Blended Learning training:

Project Director narrated the backdrop of the BL implementation in HE through capacity building of HE teachers and academics. He presented the consolidated report of the five workshops for a vivid understanding of the audience regarding intent and extent of the present workshop. Video clippings of few participants in the form of bytes were played to establish the opportunity to train 267 enthused participants those who shared the experiences with the lessons learnt.

Session-4: Action Plan for Blended Learning Practice:

The mentors and facilitators introduced the Action Plan template to the participants and explained various components to engage the 43 participants (grouped into 8 circles) to prepare action plans for their respective institution.

They were endowed with the opportunity to discuss various components of blended learning to be addressed in the institution level and alignment with courses and curriculum.

Day-2

Session-5: Review of day 1 programme

Three willing participants were invited to sum up the Day-1 activities/excerpts.

Session-6: Institutional Action Plan for Blended Learning Practice

The eight groups of participants were deeply engaged in developing action plans for their respective Institution. This session was guided by the facilitators.

Session-7: What needs to be in place to operationalise an Action Plan for Blended Learning Practice?

This session involved group work and plenary discussion as to what needs to be done to operationalise an Action Plan for Blended Learning Practice at home institutions:

- ➢ Institutional SWOT analysis.
- > Does a Blended Learning policy exist?
- > Is there a need for faculty institutional Blended Learning guidelines?
- > Status of staff capacity for Blended Learning Practice.
- > What staff development is required on Blended Learning?

These were deftly addressed by the participants in drafting the action plans for their Institutions in the prescribed template.

Session - 8 : Developing and setting up an institutional Action Plan for Blended Learning Practice:

Group work continued and the facilitators guided the groups to review institutional Blended Learning Practice in their particular context keeping in view the vision and mission of the respective HEI.

Session - 9 : Developing and setting up an institutional Action Plan for Blended Learning Practice:

Group work to review institutional Blended Learning Practice was concluded and each Institution Action plan so far developed was presented by a representative of that Institution. A total of 16 Institutional Action Plan drafts were developed and submitted in the dedicated workshop WhatsApp group. After each presentation, the house was open for questions/suggestions and further inputs. There was a vibrant atmosphere of discussion and exchange of ideas and thoughts during this session.

Closure and Way Forward:

The 2-day workshop was summarized by the Officer-in-Charge, Centre for Online Education, NSOU. It was followed by an End Note. A couple of participants were invited to share their experiences. At the end, participation certificates were distributed to all participants. This was followed by a group photograph.

The workshop eyed to engage academic & administrative staff of the HEIs together with representatives from almost all the DDEs in West Bengal to develop a trajectory on present needs of higher education including open and distance mode through the development of action plan for Bended Learning practices as an expected outcome of the workshop. This academic endeavour would help to realise the key targets of NEP 2020 and UN-SDG-4 by 2030.

The entire 2-day workshop was skilfully hosted, compered and coordinated by the Project Coordinators. At the end of Day-2 of the workshop, the participants were requested to provide their feedback through a Google form development for the purpose.

Analysis and interpretation on feedback:

Though there were 43 participants, feedback from 35 participants through google form were received. The google form was designed to capture the views of the participants on two aspects viz. i) Workshop Evaluation and ii) Outcome Evaluation.

Gender	No. of Respondents	Percentage
Male	23	65.71
Female	12	34.29
Total	35	100.00

Table-6 : Participants Count-II

Section I included -

- a) Workshop Content
- b) Workshop Handouts
- c) The activities
- d) The facilitators

Section II included -

- a) Personal Reflection (learning chronicle, your skills and abilities, learning style),
- b) Activities/Facilitation gathering documents (proving learning, types of Documents),
- c) Integration Putting it all together: (goal setting, learning outcomes,
- d) Confidence to complete Action Plan for BL practices,
- e) Confidence to implement BL practices,
- f) Ability to identify your skills and abilities.

Analysis and interpretation on Section I:

As per Table 7, majority of the participants agreed that the workshop contents are relevant, comprehensive and easy to understand. Workshop contents were not satisfactory only to 11% of participants. During the workshop, all the relevant handouts were circulated among the participants through WhatsApp group in PDF version. Majority of the participants (approx. 89%) were satisfied with the handouts which they received and agreed that the handouts supported the presentation, provided useful additional information and were clear and well-organized. The whole workshop was based on activities to prepare the action plan for implementing blended learning practices. Almost all the participants agreed that the activities carried out during the workshop was very effective and learning experience to them. As far as workshop facilitator's quality, majority of the participants opined that the facilitators were knowledgeable, well prepared and responsive to the participants' questions.

Responses	Workshop Content			Workshop Handouts			The activities	The facilitators		
	Relevant	Comprehensive	Easy to understand	Supported presentation material	Provided useful additional information	Were clear and well- organized	Were useful learning experiences	Knowledgeable	Well-prepared	Responsive to participants' questions
Strongly Disagree	4	3	4	4	3	4	1	4	3	3
Disagree	0	3	1	2	3	0	0	0	1	2
Agree	8	7	9	п	12	5	3	8	9	7
Strongly Agree	23	22	21	18	17	26	31	23	22	23
Total	35	35	35	35	35	35	35	35	35	35

Table 7: Workshop Evaluation

Analysis and interpretation on Section II:

The parameters of section II were identified to measure/ evaluate the outcome of the 2-day workshop. The outcome of the workshop was measured through six parameters by evaluating the performances changes after the workshop.

Fig11: Personal Reflection (learning chronicle, your skills and abilities, learning style) and-Fig.12: Activities/Facilitation – gathering documents (proving learning, types of documents) indicate that there was a significant change after the workshop among the participants.

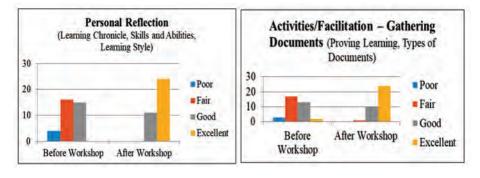


Fig.11

Fig.12

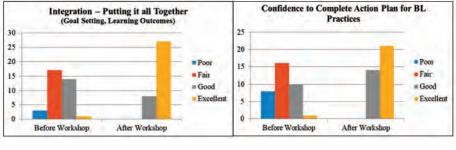
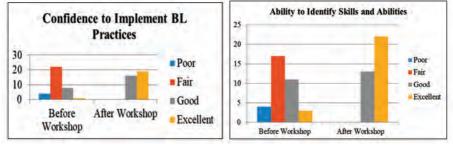


Fig.13

Fig.14

Fig.15: Confidence to implement BL practices and Fig.16: Ability to identify your skills and abilities indicate that through the workshop, the participants have gained confidence and acquired sufficient knowledge and competencies to implement blended learning practices.







In the last question of the google feedback form, the participants were asked whether they would prefer to recommend this workshop to their colleagues? In response to this question, 91% of the participants said yes, they will recommend their colleagues to participate in this type of workshop to improve the teaching learning process through blended learning.



Fig.17 : Recommendation on the workshop

Recommendations:

- More teacher training, soft skill development, technical awareness programme may be organized to implement the action plan.
- Financial support is required to develop BL related infrastructure.
- Better infrastructure and recruitment of technical officers is required.
- Hands-on training on development of MOOCs to complete the action plan may be helpful.
- Continuous professional development programmes are crucial towards techno-pedagogic environments.

CHAPTER 9

Summary and Final Thoughts

The project envisaged that the online and in-class materials play an important role in the success of a blended course. Preparing online and offline learning materials is one of a facilitator's three main tasks. Facilitators may need to learn more about technology to create the best online learning materials. Creating online courses using an authoring tool is one of these digital skills.

Also, blended learning works best when facilitators' in-class instructions and online materials' indirect guidance are highly connected. When eLearning, personalized learning, and classroom activities are combined, they enrich learning experiences and improve learner outcomes. A lesson plan/ story board can help facilitators create online learning materials that complement in-class activities.

The various intervention strategies and facilitative tools discoursed in the workshop session established that after the learning process, there will be important connections between facilitators and learners. It helped facilitators assess learner comprehension, correct misconceptions, and provide constructive feedback. It also enabled to assess the course's effectiveness, allowing facilitators to make necessary adjustments for the next time.

Final Thoughts

The following reflections evolved from the transactions and outcome of the project:

Empowering the academics facilitates extending the present online program since launching a new one will involve much research, thought, and preparation on the part of the institution's leadership team. A critical initial step is to explicitly describe the academic objectives and to provide quantitative metrics for evaluating the implementation's effectiveness. After establishing these objectives, the leadership team may begin planning for personnel, professional development, curriculum, facilities, and technology, among other things. Investing significant time and money in this upfront preparation can assist instructors in creating a curriculum that enables students to achieve academic achievement and excellence. A learner benefits from several advantages associated with online and blended learning, including increased access to courses and instructors, more flexibility in scheduling, and greater control over course pacing. Furthermore, learners can improve their time management and study abilities, as well as their academic achievements. Developing the optimal online or blended learning program for the institution is reliant on the learners' particular requirements.

Participants expressed appreciation for the numerous information and communication technology (ICT) tools addressed during the event. Participants also indicated interest in conducting a facilitation training programme and a design thinking workshop at their individual institutions to better understand and appreciate deep-seated difficulties and issues in higher education.

The workshops recognized the following expected learning outcomes categorically:

- Collaborative, engaging, facilitating and innovating mindset were regenerated.
- Contemporary and context-specific ICT tools, software and their blending with situation-based learning were unified in an orchestrated manner.
- Set the understanding of Effective Learning Models and Cognitive-Behavioural Interventions, connecting with context and experiences.
- Triggered engaging activities and exercises to promote collaborative, facilitating and participatory learning environment.

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