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### **Blended Learning Practices in Indian Classroom-Perspectives and Challenges**

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#### **Abstract**

Blended learning is one of the e-learning models merging an online course and face to face classroom by optimizing the use of Information Communication Technologies as instructional media in order to augment the teaching and learning practices for the learners and instructors. The blended learning environment also offers the opportunity to use time in a more efficient and flexible way by extending instruction time out of the class walls. Blended learning is using multiple instructional methods in and out of the classroom in order to enhance the learning outcomes and to decrease the hurdles of learning. Although there are prospective benefits, transitioning from traditional face-to-face course to blended learning courses can be challenging for students, faculty, policy makers and Government. Indian education context, developing and implementing blended education process is more challengeable task regarding needs the huge volume of funding and India has large and more remote and regional areas. Therefore, the quality of the Internet normally becomes a general challengeable issue in embedding online-based education in developing countries like India. Further, major drawbacks in integrating e-learning into face-to-face education included high initial costs and time-consuming for developing content materials, the substantial cost for system or gadgets maintenance as well as students' feeling of depression and isolation in virtual the environment. In addition, the low completion rates of e-learning courses and the importance of instructor-student and student-student interactions in classrooms have subsequently suggested that e-learning alone was unlikely to be the most effective strategy for teaching and learning. Lecturers usually encounter difficulties in delivering the course in blended learning, and those who are not well-trained will meet difficulties in the teaching-learning process. If multiple technologies are used inside and outside the classroom, a student who is not technically competent may feel frustrated and lost, particularly at the beginning of learning. The technical skill level of students may be a key challenge to implementing blended learning. Perceptions related to attitudes towards innovation and change, the time required for implementation, workload, Level of institutional support, available technology infrastructure, instructional delivery

methods and quality assurance should be considered as the major challenges in implementing blended learning in developing countries. In order to address these issue extensive tutorials, support services, and a helpdesk are sought for both learners and instructors.

*Keywords:* Blended Learning, Face to Face and Traditional Learning, Implementing, Perspectives, Challenges, New Traditional Approach.

### **Introduction**

In the digitalized era in which technology has been more advancing and information has been rapid increases and refreshing, the importance of the education has been growing accordingly. Technology has a significant role to play in building up 21<sup>st</sup> century pedagogies, and today's students come pre-skilled with technology efficiencies to schools and a built-in recognition for new technology. In this century brings different of challenges for educational institutions. Many institutions are embracing the new techniques into their system. This generation of students has been interesting in using technology in teaching and learning, in and out of the classroom (De. George. Walker and Keefee, 2010). New educational technologies and trends have detached traditional place and time hindrances and have provided students access to information whenever and wherever they want. The learner can access information without being dependent on time and place has made the internet an indispensable part of the present education system. In this thematic article, author indented to express the views or perceptions and challenges in the way to be implementing blended learning practices in the Indian classroom situations.

### **Evolution of Learning Technologies**

Science and technology have always been instrumental in bringing efficiency and improvement in the process and products of the human work. The difference between science and technology is that the science discovers a principle or constructs a theory on the basis of experimentation while technology uses that theory or the principle for upgrading the existing practices and facilities. ICT infrastructure hoards in educational institutions have been one of the most preferable priorities of educational policy during the last decades. Most countries have invested considerable amounts of public resources in ICT equipment such as computers, whiteboards, connectivity, software...etc (De Writee, 2014).

In the early period of educational technology, to add the variety of the learning and teaching activities in a classroom, educators used audiovisuals such as filmstrips, posters, photographs, newspaper clippings, overhead transparencies, cassette tapes and

video cassettes to support the various learning styles of students. Soon after, development of multimedia courseware became the craze and it was then that computer-assisted learning and like became popular. In later, these gave way to resources found on the internet, typically, publications, websites or online facilities to help educators create web-based quizzes, crossword puzzles, exercises and the like. Most revolutionary was when the internet became even more powerful, that is, when we reached the 21<sup>st</sup> century, offering web-based portals for education.

### **Transitioning to Fresh Context**

In the 21<sup>st</sup> century, educator or facilitator need new, innovative and different knowledge and skills to meet today's challenges, trends, including the understanding and competencies to work with diverse students. Well qualified and skilful teachers are necessary for the efficient running of educational systems and for enhancing the eminence of learning. Research support this notion that a good teacher and actions to be taken on his part in the classroom play an imperative role in provoking effective and efficient learning on the part of the study (Markley.2004). Learners acquired and updated their knowledge through the variety of media. Today's learning patterns knock the door of students or learners. Today anyone can learn anywhere, any time. Latest update information and variety of content are available at low cost and short time duration. New technological based terms replaced old terms such as computer-based learning and mobile learning.

In the last two decades, pedagogy has undergone unprecedented change with an innovative focus on interactive, more student-centered learning. This has been driven to a important extent by technological modernization. A key part of this development has been the enhancing use of e-learning or online learning. This has become a key element of present education as students become more computer literate, computers become more gladly available and the demand for technology-based learning at a time convenient to the learner increases. In recent years there has also been increasing pressure on staff resources and space as student numbers have been increased, so moving some learning from the classroom into a more purposeful self-directed online learning environment has been employed as one way to cope with this issue. From a learners' cognitive perspective, it is thought that self- directed learning allows individuals to focus effort on useful information that they do not already know and improve the preservation of material.

### **New Traditional Approach**

Teaching is a systematic, planned sequence of events that facilities the communication of an idea, concept, or skill to a learner. The act of teaching requires an

understanding of learning and an understanding of the individual and environmental factors that affect the learner (Duffy & Mc Donald, 2011). Therefore, it certainly needs a mature design relating to planning, implementation and evaluation of instruction. Seels and Richey in Ibrahim and Sidik (2013) defined that design is the process of specifying conditions for learning involving (1) instructional systems designs, (2) message design (3) instructional strategies and (4) learner characteristics. A good planning and design is vital for any course (Bath, Debra & Bounce, John, 2010)

In recent years, blended learning, a convergence of e-learning and face-to-face learning, has emerged to be a promising alternative learning approach compared to conventional e-learning approach. Graham argued that the blended learning to be the “New Traditional Approach” in education because it maximized the best advantages of the face- to- face and e-learning approaches. Nevertheless, learners’ intentions to continue to use blended learning were strongly influenced by their satisfaction. In order to evaluate the potential success of educational design based on novel technologies, it was essential to understand the learners’ attitudes, perceptions as well as their level of acceptance and satisfaction. (Garrison & Vaughan-2008) Blended learning is the thoughtful fusion of face-to-face and online learning experience. The basic principle is that the face-to-face oral communication and online written communication are optimally incorporated such that the strengths of each are blended into a exclusive learning experience congruent with the context and intended educational purpose. Another definition stated from University of Western Sydney (2013), blended learning refers to a strategic and systematic come near to integrating times and modes of learning, combining the best aspects of face-to-face and online interactions for each discipline, using appropriate information and communication technologies (ICTs).

### **Blended Learning Formats**

The following are the blended learning formats suggested by Roma Smart Joseph (2018)

1. Synchronous physical formats
  - Instructor–led classrooms and lectures
  - Hands-on labs and workshops
  - Field trips
2. Synchronous online formats
  - E- Meetings
  - Virtual classrooms
  - Web seminars and Broadcasts
  - Coaching
  - Instant messaging

3. Self- paced, Asynchronous formats
  - Documents and web pages
  - Web computer- based training modules
  - Assessments/ Tests and Surveys
  - Simulations
  - Job aids and Electronic performance support system
  - Recorded live and online learning communities & Discussion forums.

### **The Challenges of Implementing Blended Learning**

According to Schellens (2004), the design of a learning environment is very important for stimulating and supporting student. However, major drawbacks in integrating e-learning into education included high initial costs for preparing content materials, the substantial cost for system maintenance as well as students' feeling of depression and isolation in a virtual environment. In addition, the low completion rates of e-learning courses and the importance of instructor-student and student-student interactions in classrooms have subsequently suggested that e-learning alone was unlikely to be the most effective strategy for teaching and learning. Hence, questions related to learners' satisfaction and effectiveness in e-learning approach were raised.

There remain some obstacles in designing online learning (Karadeniz, 2009) such as designing the content based on video, animation, or simulations, and the lack of time in developing the content. Lectures usually encounter difficulties in delivering the course in blended learning, and those who are not well- trained will encounter difficulties in the teaching-learning process. Besides, another challenge is the limited access to videoconferences and content because of the low bandwidth on the network. One Australian institution faced a challenge while applying the blended learning approach to students, mainly because this country has large and more remote and regional areas. The internet broadband and capacity of downloading in those areas is limited (poon, 2014). Therefore, the quality of the Internet usually becomes a common issue in applying technology-based learning.

Furthermore, not all the students and lecturer are aware that the utilization of technology media is important in the teaching and learning processes. To facilitate and motivate students to learn independently while outside the class also becomes another obstacle for teachers. Some lectures are unable to boost students' motivation to use technology as instructions. Then, some studies have reported that, in the use of blended learning for learning activities, not all students are able to study independently the content provided. For example, students stop to watch video lectures posted on website

or LMS because of uninterested and tedious (Woo, Gosper, McNeill, Preston, Green, & Phillips, 2008)

### **Challenges in Indian Classroom**

According to Garrison and Kanuka (2004, 96), there is a shortage in blended learning designs that can be followed by instructors. They state that “There is considerable complexity in its implementation with the challenge of virtually limitless design possibilities and applicability to so many contexts”. The following discussion uncovers challenges that Indian classrooms may face when implementing blended learning. In general, these challenges can be grouped into major categories, infrastructure, professional development and technical support. These three main challenges will be addressed individually below.

**Infrastructure:** Issues behind the scenes that could limit progress if not properly provisioned include broadband, networking equipment and facilities.

- Internet (or) Broadband:

Education institutions have drawn attention to the broadband imperative. It's important to access broadband performance coming into the state, for each school, in each classroom. Education broadband highway is a nonprofit organization that advocates for better broadband access. India has large and more remote and regional areas. Therefore the quality of the internet becomes a general challengeable issue in developing countries like India.

- Hardware and software equipment:

Ongoing management of the network is a key driver of complexity and cost. The ongoing maintains and software issue of network management can be critical in terms of functionality, staffing, expertise and cost. Depending on the instruction model, other accessories may be necessary to implement and manipulating the digitalization in the classroom. It's important to consider the installation and upgrade process required for each, such as laptop or tablet, interactive whiteboards, headphones to enable students to receive audio, security devices, cables, software packages and follow-up maintenance service.

- Facilities:

Some implementations of blended learning will lead to changes to facilities and infrastructure. For example, upgrades in broadband networking, hardware and software equipment may require structural changes to buildings. Education institutions that shift to larger student groupings may need larger classroom spaces with different configurations. Changes in facilities can be extremely expensive, and

this work can also uncover unanticipated problems and expenses that can significantly affect the schedule and budget of the Indian government.

**Professional Development:** Some of the challenges categorized under the professional development are listed hereunder.

- Blended learning professional development is not just about showing teachers how to use tools and technology in their classrooms; rather, it is about preparing teachers for deep changes in the nature of teaching and learning.
- Limited initiatives for the professional development of staff to integrate blended learning within existing curricula.
- Another obstacle from a faculty perspective, designing and teaching a hybrid course for the first time is a very challengeable task with regarding cost and timing.
- Designing a course with the appropriate workload for the students, designing out of class activities that have a relevant connection with in-class activities and that support in-class activities and outcomes.
- Students may face in a hybrid course is the use of multiple technologies. If multiple technologies are used inside and outside the classroom, a student who is not technically competent may feel frustrated and lost, especially at the beginning of the course or programme.
- The technical skill level of instructors and staffs also may be a key challenge to implementing blended learning in real classroom situations.

**Technical Support:** Few of the challenges are summarized under the technical support listed below.

- Implementation of a blended learning is many processes, tools, and training that need to be pulled together to enable teachers and students to thrive in classrooms. This challenging, time-intensive work requires dedicated attention and resources and specific skills.
- A program management office should have an individual assigned to providing and monitoring implementation support-technology, instruction, staff development, and communication.
- The implementation role will change over time, as the effort moves from the planning phase through implementation to support. The number of people working on the project, and their time commitment and roles, will evolve.

**Blended Learning in Indian Classrooms**

**Internet Users Status in India**

The history of the internet in India started with commencing of services by VSNL on 15 Aug 1995. In the year 2000 approximately only 5.5 million internet users in India, then 2010 users were increased 100 million, and by 31 December 2017 this number had grown to 462 million, making growth 8300% between the years 2000 and 2017 then 362% growth from 2010 to 2017. Besides, India is the second place in the list of the top five highest number of the internet user countries.

One reason for internet users’ growth is that India has the world’s largest youth population with 356 million 10-24 years old, and they are adapting to new technologies faster than expected. It is estimated that internet use will continue growing rapidly in India, which raises an issue of providing new learning strategies that include the use of technology.

*Table 1*

Top five countries with the highest number of internet users- December 31, 2017

Country	Population In 2000	Population In 2018	Internet Users 31 Dec.2000	Internet Users 31 Dec.2017	%
China	1,283,198,970	1,415,045,928	22,500,000	772,000,000	3331
<b>India</b>	<b>1,053,050,912</b>	<b>1,354,051,854</b>	<b>5,000,000</b>	<b>462,124,989</b>	<b>9142</b>
United States	281,982,778	326,766,748	95,354,000	312,322,257	227
Brazil	175, 287,587	210,867,954	5,000,000	149,057,635	2881
Indonesia	211, 540,429	266,794,980	2,000,000	143,260,000	7063

**(Internet World Status, n.d.)**

**Fresh Initiatives taken by Indian government**

Digitalization is bringing in sweeping changes in the primary and Higher Education scenery. In India, most of the institutes are taking a variety of initiatives in promoting digital education. Ministry of Human Resource Development, India has taken up fresh initiatives like

- SWAYAM (India’s own MOOCs),
- Swayam Prabha,
- National Digital Library, and

- National Academic Depository.

The Indian government apex body, University Grant's Commission (UGC) has drafted New Online Education Regulation and rules for the same have also been framed. Further, the technology of digitalization in education and all the digital initiatives have the possibility to revolutionize the Indian educational sector in the near future. Besides the aforesaid initiatives, MHRD has also started initiatives such as Cashless Campus and Digital Financial Literacy of community by students.

**Digitalization for educational excellence:** The Indian government will intend to raise the Gross Enrolment Ratio (GER) in the higher education from 24.5 (2015-16) to 30 by 2020, and the quest to improve the quality of education would require a large-scale extension of the high -quality educational opportunities. However, physical expansion of such facilities is fraught with both infrastructural and human resource limitations. Fortunately, in the days of fast expanding IT facilities, the technology can be leveraged to address these twin concerns of enhancing access and quality.

**Digital Initiatives for Higher Education:** National convention on digital initiatives for higher education has listed out the possibilities to attain the educational excellence. The use of technology through online education in higher education also becomes imperative due to the following factors:

- Affordable:** Online education is cheaper than formal education without compromising on quality, thanks to low infrastructure costs and large learner base.
- High Quality:** Online Education is honestly delivered by the best teachers, assuring high quality of instruction.
- Inclusive:** Online Education addresses the rural-urban divide which is manifested by the fact that at present India has 4.5% graduates in rural areas as against 17% in urban areas. For females, the disparity is starker: 2.2% female graduates in rural areas, as against 13% female graduates in the urban areas.
- Employability:** By a supple curriculum that is in line with the current market requirements, the online education can enhance the employability quotient in the youth.
- Uses internet:** The dissemination of IT infrastructure is anticipated to increase the internet users from 40.9 Cr in 2016 to 73.5 Cr by 2021. This will improve access to online courses to the youth.
- Smart Phones:** Increasing penetration of smartphones, which is expected to increase from 29 Cr (2016) to 47 Cr (2021), would further facilitate the use of the online courses using the telecom spectrum.

- g) **Higher spend:** The households' expend on higher education is going to augment in future, affording an opportunity for the hitherto unreached population to the portals of higher education.
- h) **Retraining the workforce:** The pressing need for the employment sector for re-training and career upgradation as per the needs of the market is best served by online education leading to Life-long learning.
- i) **Skilling the unskilled:** The Skill India Mission would certainly require online courses for reaching out to the large number of unskilled or semi-skilled population to help them to upgrade their skills.

The education through digital mission holds promise since it is accessible to everyone, it is affordable, it can overcome the deficiency of quality faculty and it can develop the enrolment in the higher education system. The digital learning platforms provide opportunities for lifelong learning. Keeping this in view and to democratise the opportunities of quality education, the Government has launched the National Mission on Education through ICT (NMEICT) to translate the power of IT into expanded learning opportunities. Over a period of time, NMEICT has made significant gains by developing IT interventions that have the potential to change the higher education scenario. **(Digital Initiatives for Higher Education, n.d.)**

### Conclusion

The recent swift advances in the Information Communication Technology (ICT), including the internet and the web, have the noteworthy impact on numerous aspects of the daily living of the mankind and the society of the industrialized parts of the world. This is the age of knowledge exploration and explosion. Rapid progress in computer technology has invaded the area of education. Specifically in the form of computers, mobile phones and the internet has become a major focus of educational policies and reform in recent years. New ideas, new experiences, values, and new technologies help in creating the conducive environment for teaching and learning. The technological revolution has transformed many aspects of our present educational pedagogies including M-learning, Blended Learning, Virtual learning, Gamification, and Artificial Intelligence in Education. The ultimate aim is to improve the efficiency in teaching and learning by making use of technology in the classroom.

In addition, Sait et al. (2003) reported that instructors with limited skills in internet usage were hesitant in using any technology in their teaching. In order to address this hurdles extensive tutorials, helpdesk, and a support services are a sought for both students and teachers. Do not expect that implementation will be complete when the initiative is launched at the beginning of the year. In the cases where there is a phased roll-out over a number of years, it may be a bit more complex, since the first

schools will be out of planning and implementation and moving toward support while the next waves will be in planning and implementation. As the program matures and the school successfully completes its work in implementation, the focus can shift from implementation to assessment of impact.

In recent years, some Indian Universities and Institutions have provided diverse commercial learning administration systems and learning management systems, to facilitate learning and teaching online. However, the number of faculty members utilizing these systems is very limited. One reason could be that the university and institutions do not provide enough training workshops for online learning systems. Ample skills, afford online materials as auxiliary resources for their courses. All staff members (or) instructors should have access to model-specific learning experiences. In Indian classrooms, implementing blended learning is a complex project that changes roles, structures, schedules, staffing patterns and budgets. But implementing blended learning in Indian classroom required less structural changes than implementing online-only courses.

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