Blended Mode of Learning is the Way Forward in the Post Pandemic Era

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Abstract

COVID-19 Pandemic has caused many abrupt and profound changes in the Education Sector around the world. Due to the school closures, India has also witnessed a large number of students suffering from huge learning gaps. With the current priority of reopening the schools and bringing the students back to the classrooms in a safe manner, blended learning is seen as a fundamental part of the future of education. Blended learning is a way of learning combining traditional and modern learning models, with the help of digital learning platforms and tools. The power of blended learning methods lies in their ability to improve the learning experience for both the teachers and the students. Despite various efforts by the government and independent organizations, making learning possible for all learners has been a challenging journey. It has contributed to the increase in resourcefulness, dedication, and creativity for many teachers, families, and students who are collaboratively building remarkable learning experiences during the school closures. Also, it has disclosed many weaknesses and vulnerabilities of the system in making the dream of digital India possible.

With the utmost priority to bring back children safely to the schools, various studies see technology playing a crucial part in the process. This allows the scope of providing more opportunities for collaboration, increased access to learning, advanced systems for tracking learning levels, and preparing learners for a tech-oriented future. A blended mode of learning is seen as a balanced way out to bring our children safely to the schools and optimize ICT tools and platforms to accelerate the learning process. Open educational resources must be prioritized, public education cannot be dependent on digital platforms provided by private companies[1]. This will require all the stakeholders on the national level, state level, civil societies, teachers, students, and parents all collectively mobilizing these efforts. Thus, making it important to ensure that any digital transition is not just an effort pushed by technology companies but the teachers, students, governments, civil society representatives and privacy advocates are also represented and shape these transformations.

Introduction

Blended Learning is a way of learning, combining the traditional way of face-to-face classroom instruction and teaching with the help of digital learning platforms and tools[1]. The term has been popular in recent years, with more educators leveraging the technology to improve learning through EdTech based teaching methods. This mode of learning is also known as Hybrid Learning, as it integrates technology and digital media with the traditional teacher-led classroom activities, providing more flexibility for students to customize their learning experience. The power of blended learning methods lies in their ability to improve the student experience. For teachers, the in-person and online elements of the teaching complement each other to create a richer learning experience. For students, it has been concluded by various studies that it helped in improving learning, reducing failure rates, and boost engagement. A report from 2016 identified blended learning as one of the most significant trends in education change[2]. The pandemic has brought many existing patterns and trends to the surface. It has also potentially disclosed many weaknesses and vulnerabilities of the system, these include an accentuation of inequality, risks that follow from the digitalization of education, and just how unprepared educational communities across the world were, for a massive shift to digital and distance learning. On the other hand, some positive features within the communities have become increasingly visible. Technology has been utilized in a blended form to reach out to students with most and least digital infrastructures. There has been an increase in resourcefulness, dedication, and creativity for many teachers, families, and students who are collaboratively building remarkable learning experiences. The desperate situation has also created an awareness of the multiple roles that schools can play in providing the overall well-being of the children and youth and the significance of the presence of the children in the schools. It has reiterated the crucial role education plays in individuals' lives, communities, and societies.

UNESCO has listed interrupted learning among the top adverse consequences of COVID 19 led school closure. India has also witnessed a large number of students suffering from huge learning gaps like most of the students across the globe. With schools opening up slowly in the country, the utmost priority has been to make children feel safe and build systems that can weather any storm and keep children learning, no matter the circumstances. Connectivity and bridging digital divides remain a key priority for building the resilience of education systems and providing inclusive hybrid learning opportunities. Technology can help in introducing agile ways of delivering education services, by leaving no one behind and efficiently using resources. Thus, it becomes critical for everyone in the government, the private sectors, civil society, and other stakeholders to work towards a common goal[3].

[1] https://www.panopto.com/blog/what-is-blended-learning/
[2] https://www.futurelearn.com/info/blog/everything-about-blended-learning
[3] https://unesdoc.unesco.org/ark:/48223/pf0000379133

Blended Learning as an Education Model

School closures during the past two academic years have resulted in learning losses and increased dropout rates, impacting the most vulnerable students. Children had to miss out on their learning, social interaction, and, playtime which is essential to their overall development and well-being. In one of the reports by UNESCO, it is mentioned human interaction and well-being must be given priority in the post-pandemic. With the help of vaccination drive in place and low covid infection rates, India has welcomed the move of the gradual opening of the schools in various states, to prevent further learning loss and alleviate some of the psychological stress children are facing. India's journey with various digital initiatives in the past years has helped the country to cope up to a certain extent from the learning loss. Various measures were taken by the Ministry of Education from the national level, by governments in the States and UTs to implement programs to support distance/home-based learning for children by varying degrees of teacher interaction and follow up and by the parents. This solution ranges from interactive live online classes to digital content shared over WhatsApp to the distribution of textbooks and calendars with home-based activities. Recent researches and studies see digital technologies as an enabler in communication, collaboration and must as a source of innovation and expanded potentials. Inclusive access to new technologies is critical to the achievement of SDG 4.

The COVID-19 pandemic has also exposed large inequalities in access to technology and various digital infrastructure widening the gaps between those with the opportunity to learn. This suggests having a balanced way out to bring our children safely to the schools and optimize ICT tools and platforms to accelerate the learning process. A blended mode of learning is a potential way for redefining the traditional education paradigm and using technology to reach every learner. In a blended learning environment, offline learning is meant to complement the-person classroom learning through additional resources through various digital platforms to create an enriching learning experience. The approach is not to replace the physical presence of the classroom environment but to bring more flexibility in the classroom experience for both the students and the teachers. Given the emergence 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 face-to-face in-person learning is fully recognized[4]. In a blended learning environment, teachers often get more time for personal interaction with students as online delivery of learning materials saves face-to-face classroom teaching hours, which can be better utilized for learner-centric activities, better interaction, and mentoring. In higher education, it holds a great significance in reaching out to a larger number of students. It provides students to enhance learning skills, greater access to information, improved satisfaction and learning outcomes, and opportunities both to learn with others and to teach others.

[4] https://www.ugc.ac.in/pdfnews/6100340_Concept-Note-Blended-Mode-of-Teaching-and-Learning.pdf

Some of the key reasons why Blended Mode of learning is adopting approach by the educational community and seen as a way forward in the post-pandemic world: -

Opportunity for Collaboration

A blended learning environment fosters and supports collaboration in any form. Studies have shown that peer-to-peer learning is fun and engaging for students, especially when it comes in the form of digital game-based learning. Collaboration also helps develop a social support system for learners and establishes a positive atmosphere, which leads to higher productivity.[5] Digital platforms can help to communicate with anyone from anywhere. Initiatives like PenPal provides a digital platform for students to interact with other students across the globe. With the pandemic impacting everyone's lives, using such digital platforms to collaborate and work together can help students to become empathetic adults and understand each other better. This also improves teacher-student relationships as they work together as equals, this encourages students to be more receptive to feedback, leading to greater retention.

Tracking Learning Levels

Post pandemic, the learning levels among students are likely to be even more heterogeneous than before. This will necessitate simple learning diagnostics to quickly identify students' levels and then target instruction to get them back on track. Examples of diagnostics include ASER-like tools or UNICEF's MICS learning module will contribute to focusing the basics, such as numeracy and literacy which will help in rebuilding the foundation for mastery across all subjects. This sort of tracking intervention will prove substantial for lower-achieving students through better-targeted instructions. The data will help to provide additional tutoring with the help of volunteers and non-profit organizations, hence teaching them at the right level. With the help of low-cost tech-based software, tracking of the number of students coming back to the schools, keeping a special track of girls dropping out of the school can help to reduce the overall dropout rates.

Increased Access to Learning

Blended learning widens up the potential for access to learning. With this increased access to learning, students from a wider range of locations can take benefit. Especially for higher education, the option for remote education within blended learning opens up learnings from across the globe. With technology like text-to-speech or some of the accessibility settings within core software, will make education more inclusive by expanding it for specially-abled learners. It empowers teachers by providing additional tools and training platforms to upgrade their knowledge and skills. Educators can draw on a wide range to provide educational resources across different contexts. By creating online resources, they can focus more on tailoring their face-to-face class time to the need of their students. Students also have options to accelerate their learning and the freedom to take the initiative with their studies. Teachers can motivate the students with projects that involve going beyond the confines of the classroom and learning by doing.

[5] https://www.thehindu.com/education/why-collaborative-learning-is-important-even-in-the-digital-age/article34261313.ece

Better Communication

Pandemic has presented everyone with various kinds of misinformation and inculcated some level of fear and anxiety. Digital devices like radio and television have also shown the potential to support the continuation of students' academic learning during the school closure. They reminded us of the importance of such platforms for education, culture, general knowledge, especially for students who lack access to online materials and smart devices. Such low-cost tools can be utilized more in the future to continue the communication channels smoothly among the students, teachers, and parents. The importance of continuity of learning needs to be communicated to the parents/caregivers, to raise awareness of the learning programs being rolled out and how to access them. Online platforms like Microsoft Team, Google Classroom, Canvas, and Blackboard to participate in various educational forums and collective communities have been welcomed.

Preparing Students for a Tech-Oriented World

Almost all aspects of our lives have been revolutionized by technology. This makes it crucial for our students to adapt themselves according to the fast-changing world. By integrating technology in the teaching process, teachers can better equip students for their careers and professional lives. Blended learning can help students build desirable skillsets for the future. It also helps them navigate themselves through the virtual world of information carefully. Blended learning gives scope for learners to experience new software and hardware, discovering how to use such technology can prepare them for future endeavors. A technology-driven classroom environment helps students to adapt to the fast-changing world and handle unpredictability. A combination of expert-led on-demand technology-driven communications and teaching methodology creates engaging and interactive learning.

Blended mode of learning holds a huge potential for the future of the Education sector. Especially in the post-pandemic phase when access to learning for all students is so crucial. This mode of learning has been a popular approach across the global educational community due to the various opportunities it offers. It allows a mix of teaching approaches making it suitable for different kinds of learners in the classroom. Learners can access the plethora of online resources anywhere, anytime. They can study them at their own pace making it a more interactive learning process. Various online platforms for communication among students, teachers, and parents, improve the communication channels. Online tools allow students to collaborate, it reduces the geographical barriers. Digital platforms for assessments allow for easy grading and quick feedback opportunities. All these factors make technology a much need part of the teaching and learning experience. This comes along the challenges as well, lack of access to the necessary technologies and infrastructure. Acute technological awareness among the teachers and students will hamper the learning curve. Teachers must be trained to incorporate new technology successfully and they should be flexible and adaptive to accommodate new ways of delivering lessons. All these factors combine to make blended mode learning more personalized, more engaging, and more collaborative.

Blended learning in the Indian Context

Indian Education sector has been witnessed various Ed-tech advancements recently and the pandemic has ramped up the need for such advancements now. With the present urgency to bring children back to the schools and recover from the learning loss, ed-tech innovations are now seen with huge hopes. The educational community adopted a multitude of mediums to ensure minimum interruption to education delivery. The mediums range from TV to radio to online learning channels using phones, computers, tablets. Messaging platforms like WhatsApp on basic smartphones stood out as an effective solution. In rural India, a staggering 86% of children who received educational material from schools during the lockdown, received it on the phone, either over WhatsApp or over a call (ASER 2020). Although, the digital divide has been a real constraint in reaching out to the most marginalized ones. Despite government, private and civil society stakeholders, all coming together to roll out a wide range of digital learning resources, students are still falling behind with the school closure. Low connectivity and access to digital devices have severely hampered the collective efforts. 42 percent of children between 6-13 years reported not using any type of remote learning during school closures[6]. The utmost priority for the government is the safe reopening of the schools and the country is heading in that direction. Various studies are supporting the fact that technology can also contribute to bringing children to the schools, monitoring their learning levels, and effectively using the resources, making sure no one is left behind. Blended Learning makes it possible to craft students' centric quality teaching material.

The country has been making various efforts in leveraging technology to make sure learning continues for the learners. The University Grants Commission in 2021 introduced a blended model of teaching and learning in universities and colleges, where up to 40 percent of any course can be taught in online mode and the rest of the 60 percent can be taught in the classroom. This step has been welcomed by the teachers and students as many of them had to relocate due to the pandemic and this allows them to continue their learnings, providing them greater access to quality education. Teachers also get more time for personal interaction with the students, it opens a possibility of a greater teacher-student interaction, better empowering the students with knowledge and skills. But these efforts are met a lot of challenges as well, like, lack of digital infrastructure, internet facilities, digital awareness, and many such, to make it difficult for all learners to be part of the nationwide digital movement. To begin in the direction of the blended mode of learning, there is a need to ensure first that teachers and students are equipped with basic minimum resources and related infrastructure. Technology first should be utilized in better preparation of our education system, schools, teachers, and students to make the shift inclusive and smooth for all learners. Fixing the basic digital infrastructure in schools and investing in connecting remote areas to the digital ecosystem could be the immediate step taken in this direction. Gradually exploring more and more ways to increase the effectiveness of commonly used platforms like WhatsApp and deliver content in more personalized ways to strengthen the quality of online resources. Investing in technology to develop lighter applications to be downloaded on low-cost smartphones and operate with less connectivity. Creating greater awareness of tech tools for remote learning, mitigating technology challenges for the teachers, equipping them with the right skills and training to use technology, assessing learning levels of the students and using technology, and providing remedial education.

[6] https://www.unicef.org/india/press-releases/repeated-school-closures-due-covid-19

Here are some of the Ed-tech initiatives which have been or could be blended well with the traditional way of education by the Indian Educational community. This will help in bridging the learning gaps, strengthen teacher capacity, tracking learning levels, making education more inclusive, to bring back all children safely to the schools.

Learning Management Systems for Schools

Learning Management System (LMS) is an online integrated software used for creating, delivering, tracking, and reporting educational courses and outcomes. This can be used to support traditional face-to-face instruction, as well as blended/hybrid and distance learning environments. LMS has now become a one-stop platform integrating administration, communication, and planning tools to benefit students with their learning process. The gathered information was then analyzed to detect the patterns and gaps in the learning and where to provide additional support to students as well as teachers. It allows different stakeholders to be part of the process, parents can get involved in their children's trajectory, and helps teachers to get organized and focus on the teaching. Various software platforms like NEO by Cypher Learning, Mintbook, My Class Campus are being utilized by various schools. Most of these kinds of software are currently being used by high-end private schools and universities. Government investing in these kinds of customized platforms for government schools will help in improving the quality of education and the government utilizing the data from such software can plan better strategies and action steps.

Teacher's Professional Development

With the pandemic rapidly shifting the education sector to the adapt of digital mode of teaching and learning. The teachers had to quickly find more and more effective and efficient ways to interact with their students. Platforms like Zoom, google classrooms, Microsoft teams became the new chalk and the board. This presented them with numerous challenges to learn the new ways of teaching and innovate as well. Considering the need to support the teachers, the government has been launching various digital platforms like NISHTHA, dedicated specifically for the capacity building of the teachers. It aims to build competencies among all the teachers and school leaders as well. National platform DIKSHA is supporting teachers with various resources and courses ranging from pedagogy, classroom instruction, social-emotional well-being, country should continue these efforts to make the teachers better equipped and confident with navigation in the digital world of education. The availability of quality content on these platforms will help teachers with the planning and avail them more time to focus on other aspects like spending more time with students in the classroom. The physical presence and strengthen the teacher-student relations should be the priority after the school reopens.

Assessments

Assessments of the learning levels of the students will play an imperative in the planning of the targeted acceleration programs to support the learning recovery. Ensuring students are taught at their actual level will be the most effective method for improving learning. Software-focused solutions can help in conducting such assessments and analyzing such extensive data. AserCenter has been conducted basic reading and numeracy skill analysis for school children across the country. The role of technology in conducting such results and analyzing them cannot be overlooked. In one such direction, states like Andhra Pradesh are taking a lead by bringing in a new technology called Personalized Adaptive Learning (PAL). PAL assesses students' level of comprehension, then provides content that teachers targeted concepts.

These assessments are done by online tests and based on their reports remedial mapping is done. The state aims to solve multiple problems for schools, teachers, and students, by providing a tailored learning pathway. To reach the hardest ones, the government should initiate some low-cost SMS or IVR-based technology to conduct surveys. These strategies have the potential to work in areas with less internet connectivity.

MOOC (for Higher Education)

MOOC stands for Massive Open Online Courses. They have been around for a decade but witnessed a massive surge in the users during the pandemic especially. All people need is a strong and stable internet connection and the will to learn. It allows the learner to get access to the best educational content from prestigious universities or institutions. India's. journey with various MOOC platforms like SWAYAM, has been a success story in the mission of providing quality education, support lifelong learning, and increase enrollments in the higher education of the country. Platforms like Coursera, Udemy are providing opportunities for Indian students to enhance their skills to the best of their knowledge around the world. These platforms widen opportunities for the learners when pandemic restricted their physical movement to go out and learn the skills. To recover from the learning and the job loss, these courses can be proved substantial.

Digital Lessons for Specially-Abled Children

Assistive Technology tools are helping learning reach especially abled learners. Tools like Text-to-Speech (TTS) software are designed to help learners with reading difficulties. This is also helpful for learners having disabilities like blindness, dyslexia, or any type of visual impairment, learning disabilities, or physical condition that impedes the ability to read. There are Assistive Learning Systems as well, which provides hearing assistive systems, that can help students who have a hearing impairment, as well those with auditory and learning problems. India has also been actively progressing in making education more inclusive. One such initiative is "Satya Special School's Digital learning project" by Satya Special School in Pondicherry. The school uses technological devices and audio and audiovisual instructions to help students with disabilities learn basic day-to-day living skills. Rajasthan Education department also introduces an initiative in a similar collective effort. The department introduced digital textbook lessons in sign languages for specially-abled students. The resources were made available on the E-Kaksha portal, which is a state's platform for digital resources for the students. The e-content was made in video format using sign language which is available on the platforms YouTube channels as well. These resources gained popularity during the Pandemic and the government hopes to continue the efforts to make education equally accessible for all children.

As a way forward

With the priority of reopening the schools and bringing the students back to the classrooms in a safe manner, blended learning is seen as a fundamental part of the future of education. School Closures have

led to the loss of children's learning, nutrition, mental health, and overall development. To overcome these challenges, there is a need to support the educational communities with better design and implementation plans in supporting children's education, health, psycho-social well-being, and other needs. The role of technology is envisioned to be crucial from now onwards in accelerating and revamping the systems and processes with the various EdTech tools and platforms. Thus, making a blended mode of learning as a way forward to the future of Education. The innovative practices will help in supporting and designing large-scale remedial learning at a different level of education. Launching open-access and adaptive assessment tools to measure the learning losses will help in identifying the gaps and designing the implementation plans accordingly. Incorporating digital technologies to teach foundational skills will help teachers' efforts in the classroom and better prepare children for the future. Simultaneously, bridging the digital divide on a priority basis through a combination of actions, including, but not restricted to improving access to internet connectivity and devices to the hardest to reach. In this reimagining of education, human interaction and well-being have to be at the center. Technology, particularly digital technology enables communication, collaboration, and learning across distances. Our efforts should be also be aligned with the goal that it should not exacerbate the inequalities, not even in the well-resourced communities. Open educational resources must be prioritized, public education cannot be dependent on digital platforms provided by private companies[7]. This will require all the stakeholders on the national level, state level, civil societies, teachers, students, and parents all collectively mobilizing these efforts. Thus, making it important to ensure that any digital transition is not just an effort pushed by technology companies but the teachers, students, governments, civil society representatives and privacy advocates are also represented and shape these transformations.

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