



## REVOLUTION OF TEACHING AND LEARNING PROCESSES AND PRACTICES IN A PANDEMIC

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### **Revolution of teaching and learning processes and practices in a pandemic.**

No nation or race has been immune from the Covid-19 pandemic, its rapid spread and annihilating effects left the entire world crippled. It drastically changed the lifestyle of mankind forcing us indoors and confining us to the safety of our houses. The pandemic affected human activities ranging from politics, worship, economy, businesses, education, entertainment, research, transportation, and social interactions and gatherings. Many industries were compelled to shut down for months. While some of them came to a complete halt, taking months to revive, the education industry seamlessly transitioned from the physical world to a virtual one since the onset of the pandemic. According to the United Nations Educational, Scientific and Cultural Organisation (UNESCO), nationwide closures impacted half of the world's student population. Some of the repercussions of school closure due to Covid-19 are:

1. Interrupted learning and deprivation of opportunities for students' growth and development.
2. The nutrition of children, who relied on free or discounted meals from school, were impacted as school cafeterias were closed.
3. Continuous learning was disrupted due to unequal or lack of access to technology or good internet connectivity.
4. Deprivation of social connection and communication due to campus closures since educational institutions are hubs for social activity and human interactions for students.

Along with students, the non-teaching and support staff, as well as people on contracts, were impacted as they were out of jobs with the switch to online learning. Governments directed and encouraged educational institutions to transition to a virtual platform where education (teaching-learning) processes continued in an effective manner. This necessitated a revolutionary changeover in the way we taught and learnt. Modernisation has been changing the way of living, communication, thinking, perception and the development of social, economic and political systems. Technology thus became a stimulus to modernise and improve pedagogical practices and processes which included reformation of teaching ideas and content, updation of teaching methods and resources to meet the diverse learning needs of students. The effective use of technology has now become a priority goal of the education industry.

Education is the instrument to the building of quality human capital and improving productivity. The fundamental function of education is to empower a learner with an understanding of concepts, knowledge and the development of skills which can be applied to finding solutions to the problems in life and society, and improve one's standard of living. Technology has become a powerful driving force of dissemination, sharing and expression of ideas and information. The use of technology in classrooms is not a new phenomena. Educators around the world have been using technology to support and enhance the teaching-learning process since the start of 2000. With the introduction of ICT and different skills and competencies being required in today's labour market technology "in" education and technology "of" education gained importance. The first refers to technology in the teaching process like laptops,



projectors, laser pointers, smart-boards while the second deals with the very methods of teaching. Educational institutions that had infused the use of emerging technologies in their teaching-learning processes before the outbreak of COVID-19 found it easier to transition to online teaching than the ones who were yet to embrace technology in their operations. Along with teaching and learning, assessment methodologies too were affected by closures. Most private schools and institutions were able to adopt online teaching methods whereas their low-income counterparts had to completely shut down for lack of access to e-learning solutions. Assimilation of the conventional style of teaching (lecturing and face-to-face interactions that involved discussions and Q&A sessions) and advanced or modern teaching methods (use of visual aids, story-telling, play-way method, project-based) was taken onto the virtual platform when the pandemic forced campuses of schools and colleges shut.

Tech Integrators and educational technology personnel were the frontline workers in the world of online teaching and learning. They not only had to develop effective and engaging teaching resources and designs over a short period of time but also had to empower teachers with knowledge on selecting instructional media appropriate for the teaching content, provide guidance and technical support of the media, and improve the efficiency and effectiveness of transfer of information to achieve maximum learning and understanding. Educators now became facilitators, mentors and motivators inspiring students to participate and learn. Educational technology centers began to develop educational software that focused on specific content in subject areas and knowledge.

Modernisation of education in the form of inclusion of technology in the teaching and learning processes comes at an expensive cost. Construction and strengthening of campus facilities and infrastructure and training of educators by professional technical personnel are prerequisites for this. Lack of sufficient infrastructure and lack of knowledge about effective and optimal use of these multimedia technology hinders the process of modernisation in teaching and learning. Educational institutions can develop the know-how of educational technology of their teaching staff in the following ways:

1. Introduction and inclusion of technological advanced persons in the team/department
2. Sending educators out of the organization /institution to expand professional and technological knowledge and skills
3. On-the-job-training to improve skills
4. Self-motivated learning through webinars and Massive Open Online Courses(MOOCs)

The pandemic may have forced us to stay indoors for months, but as the ancient Greeks would say, let us not waste this crisis, but turn it into an opportunity to expedite the implementation of necessary changes. The lockdown period saw many people take on courses to learn, refresh and improve their skills, understanding and knowledge in varied fields through Massive Open Online Courses (MOOCs) offered by various prestigious institutions around the world through Coursera, Edtech, edX, Khan Academy and others. With about 9.5 million users, India is the second largest market for e-learning after the US according to India Brand Equity Foundation (IBEF). It is favourable when educators are given time to take on any one of the above-mentioned 4 ways to improve their technological skills to aid the teaching-learning process, but unforeseen situations like the pandemic, has hurtled the education industry, with a sense of urgency to develop, innovate and apply modern technological systems to ensure learning goes on.

UNESCO convened a Global Education Meeting online on 22nd October 2020 which was attended by Heads of State and Governments and Ministers of over 70 countries to adopt a Declaration expressing strong commitment to



safeguarding global education. The Declaration stated the protection of educational financing and outlined measures to be adopted over the next year to safeguard education from the disruption caused by Covid-19. The Declaration stated that the Covid-19 crisis cannot be reduced to a Public Health emergency as it has jeopardised fundamental human rights including the right to education. The progress made thus far towards the Sustainable Development Goals (SDGs) and joint efforts to leave no child behind are at risk. Some of the priority actions identified were:

1. Taking every measure to reopen schools safely and inclusively.
2. Supporting all teachers as frontline workers and paying serious heed to their training and professional development.
3. Investing in skills development from the socio-emotional dimension to gaining competencies for new jobs.
4. Narrowing the digital divide that has shut out education for one-third of the world's students.

Protection of education budgets, if not increasing it, and political commitment are important for the rapid recovery of education. Until then right to education will remain an empty promise. Monitoring the implementation of these commitments over the next 15 months, while collecting and exchanging good practices will need to be done before the next Global Education Meeting planned for 2021. The National Education Policy 2020 says the Indian Government has set a target of 50 percent gross enrolment ratio by 2035 which may fuel the edtech marathon.

As the pandemic accelerated the revolution of the teaching and learning practices around the world, educators and students alike are hoping for its positive impact to continue forward on as the world is slowly moving towards a “new normal”. Some of the advantages coming out of it are:

1. *Convenience* to attend and take classes from any location.
2. *Collaboration* and networking of students and educators across the globe has increased exponentially.
3. *Flipped classrooms* where students access pre-recorded lessons at their own time and engage in “active learning” and discussions during online class hours.
4. *Blended learning* where students alternate between learning online as well as face-to-face in the classroom.
5. *Student-centered learning* encourages learners to take responsibility for their learning while the teachers create engaging lesson plans based on small groups students' needs and competency. This is not restricted to the classroom.
6. Self-directed and asynchronous learning gives learners the opportunity to learn alone, pause, review and adjust the pace of learning at a time they feel they are ready to learn.
7. Increase in the enrolment of students in distance education or correspondence courses from different institutions helping students mobilise their thinking, creativity and enthusiasm.
8. Easy and open access to learning resources and content as soft copies.
9. Rise in learning management systems and softwares by educational institutions.
10. Enhanced digital literacy

revolution of education going in India and build a resilient education system in the long term. The efficacy of technology inclusive pedagogy in Indian education was greatly challenged during the pandemic. Educational institutions must make adoption and assimilation of open-source digital learning solutions and learning management softwares in teaching and learning processes and practices a priority. Solutions to include students from the most



vulnerable and marginalised sections of society must be formulated while ensuring the quality of education is not compromised. Strategies need to be developed to improve the quality of higher studies in India and prepare the higher education sector for the evolving supply & demand related to the global mobility of students and faculty.

The pandemic, though it created numerous challenges for the education industry, many opportunities evolved out of it too. Utilisation of digital technology to provide continuous and quality education for all students around the world is the need of the hour. While the Covid-19 pandemic may have revolutionised global education, modern technological teaching and learning practices and processes cannot replace the existence and importance of a teacher. While these advancements may be effective to great extents in the transmission of knowledge and knowledge-building capacity, teaching & learning is not limited to this. The emotional connect between an educator and his/her pupils plays an important role in the interest students show towards learning as well as the extent to which the student develops a liking towards learning.

As we come closer to home, a multi-pronged strategy is necessary to keep the wheels of revolution of education going in India and build a resilient education system in the long term. The efficacy of technology inclusive pedagogy in Indian education was greatly challenged during the pandemic. Educational institutions must make adoption and assimilation of open-source digital learning solutions and learning management softwares in teaching and learning processes and practices a priority. Solutions to include students from the most vulnerable and marginalised sections of society must be formulated while ensuring the quality of education is not compromised. Strategies need to be developed to improve the quality of higher studies in India and prepare the higher education sector for the evolving supply & demand related to the global mobility of students and faculty.

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