

ONLINE TEACHING STRATEGIES DURING THE PANDEMIC PERIOD

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Abstract *The world today is in the midst of one of the biggest health hazards, which has the potential to change the entire world order. The COVID-19 pandemic, which started in December 2019 from the Wuhan province in China, has spread to over 185 countries and resulted in the closure of over 90% of all schools, colleges, and universities, impacting more than 1.75 billion students till the end of July 2020. The speed with which the disease has spread, the closure of higher educational institutions, and the transition to online teaching has been swift. Needless to say, the pandemic has transformed the centuries-old blackboard-chalk teaching model to one driven by technology. This pandemic has critically disturbed the country's education sector, which has a far reaching impact on the country's economic, social, technological, and cultural future. Whether online education, as a substitute for the classroom, will be efficacious or not, only time will tell. A number of challenges have emerged because of the pandemic, and subsequent closure of the educational institutions. These challenges in the education sector range from insufficient online infrastructure, lack of resources, untrained teachers, unwilling stressed parents, issues in online examination, quality of course materials, and so on. It has impacted virtually all nations across the globe, more so developing countries like India. The Indian government only spends 4.6% of its GDP on education, which is lower than even some sub-Saharan countries like Kenya, Togo, and Zimbabwe, and hence, the resources required to have a foolproof online educational infrastructure may not be available immediately to a large section of the country's population. Even at the best of times, access to education is a critical challenge faced by the youth of India, and the current situation has the potential to further aggravate the problem. Perhaps, it is not only just a question of imparting continuous and uninterrupted learning during the pandemic. Today, the most important challenge faced by educational administrators is to focus on the holistic development of the students. Having the right kind of digital infrastructure, developing a purposeful and well-defined online course supporting both the teacher and the student, taking the parents into confidence, creating an online format for testing and evaluating the students, and stressing on extra-curricular activities without being physically present in the educational institutions are some of the key issues that the education sector worldwide is facing. This disruption in the delivery of education is pushing policymakers to figure out how to drive engagement at scale, while ensuring inclusive e-learning solutions and tackling the digital divide. Learning is a continuous and ever-evolving process, and therefore, the educational institutions in India, ranging from schools to universities, can use this present threat as an opportunity to blend classroom education with digital education for all future learners.*

Keywords: COVID-19, Impact, Education, Primary, Secondary, Challenges, Opportunities, Threats

INTRODUCTION

The COVID-19 pandemic has affected the educational system internationally, leading to the near-total closure of schools, colleges, and universities worldwide. Responding to the pandemic challenge, a majority of governments around the world have temporarily closed down educational institutions. According to UNICEF monitoring, 134 countries are currently implementing nationwide closures and 38 are implementing local closures, impacting about 98.5% of the world's student population. The pandemic has significantly disrupted the country's education sector, which is a critical determinant of a country's economic future. School closures in response to the pandemic have impacted not only the students, teachers, and their families, but have significant far-reaching consequences on social and economic issues,

including student debt, digital learning, food insecurity, and homelessness, as well as access to childcare, health care, housing, Internet, and disability services. The impact has been more severe on the disadvantaged children and their families, causing interrupted learning, compromised nutrition, childcare problems, and consequent economic cost to families who could not work. According to a survey of the Ministry of Human Resource Development, India, at present there are 993 universities, 39,931 colleges, and 10,725 stand-alone institutions in the country, which manage around 37.4 million enrollments every year, thus contributing richly to our higher education system. The higher education sector was growing exponentially until the advent of coronavirus in March 2020, which resulted in panic shutting down of educational institutions by the state governments across the country as a measure to contain the spread of the disease.

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It has been close to more than a year now and still there is no clarity on when the educational institutions will reopen. As the days pass by with no immediate solution to stop the outbreak of COVID-19, the closure of educational institutions will not only have a short-term impact on the continuity of learning on the young learners, but also have far-reaching economic and societal consequences. This is a crucial time for the education sector, as board examinations, nursery school admissions, entrance tests of various universities and competitive examinations, among others, are all held during this period, which presents a challenge for the system as well as the students. How will the education sector and educators overcome these challenges? How will children continue to learn, even as school, by necessity, becomes a digital space?

DIGITAL LEARNING

Since a majority of the educational institutions were closed due to COVID-19, and no solution seemed imminent, a number of institutions introduced online learning. Thus, online education came to the rescue of stalled classroom learning and has now become a critical lifeline of the education sector worldwide. A number of schools and higher educational institutions, which had the required digital infrastructure and wherewithal, began conducting classes on meeting platforms such as CiscoWebex, Google Meet, Jio Meet, Zoom, and so on. This has brought about a complete revolution in the way we learn now, as a paradigm shift took place from classroom to online teaching method by the integrated use of technological innovations and telecommunication revolution. This technology enables teachers and students easy access to quality course materials in various formats, thus saving a lot of their time and effort. Using appropriate technology, and the World Wide Web, the students get an opportunity to fathom global quality education, which otherwise is not possible using the traditional blackboard-chalk method of teaching. This new learning is quite interesting, personalised, and enjoyable. One such web-based open educational platform, known as Massive Open Online Course (MOOC), provides students with unlimited participation and open access to a number of courses via the Internet. The MOOC is bringing about a revolution in the education space of the massive Indian population by providing an opportunity to those students who have the will to study, but lack the required resources. Digital learning, which is becoming so popular these days, has many advantages in itself, including no physical boundaries, better learning experience, being cost-effective, and providing an opportunity to learn from one's comfort zone at a pace and time convenient to the learner. However, having said that, digital learning is not without its limitations and challenges, the most common being no face-to-face interaction between the students and the teachers, resulting in a rather impersonalised nature of remote learning.

OPPORTUNITIES AND THREATS

Due to the lockdown and resultant closure of all educational institutions worldwide, the education sector has been threatened. It seems that the academic year 2020-21 may be a complete washout for the students. This threat is quite real and the way the things have shaped up till now, a viable solution is not in sight. This situation has highlighted and brought to focus a number of areas of potential risks for global education. However, the imminent threats have hidden opportunities, which can be utilised by the fertile minds for commercial and other gains. These opportunities exist in terms of technological advancements, online learning, distance education, anywhere anytime learning, flexi-learning, better study material, choice to be linked with eminent faculty online, and so on.

The various threats and opportunities presented by the coronavirus in the field of education are discussed.

Off-Shore Students

The universities and colleges in many countries, such as the USA, the United Kingdom, Australia, New Zealand, and Canada are highly dependent on the admission of students from developing countries like China, India, Bangladesh, Sri Lanka, and so on. It is now clearly evident that this off-shore movement of students to these countries will decline for the time being, resulting in major financial losses for the educational institutes of these nations. Further, there is no guarantee that the situation will improve considerably in the coming years. Therefore, a majority of the parents will avoid sending their wards to other countries for higher studies due to the high risk caused by the pandemic.

Loss of Interest in Learning

The sudden shift to online learning without any planning - especially in countries like India, where the backbone for online learning was not ready and the curriculum was not designed for such a format - has created the risk of most of our students becoming passive learners. They seem to be losing interest due to low levels of attention span. Added to this is that we may be leaving a large proportion of the student population untouched due to the digital divide that is part of many developing nations, including India. We are now beginning to realise that online learning could be dull, as it is creating a new set of passive learners. This can pose new challenges.

Unprepared Teachers for Online Education

Online learning is a special kind of methodology and not all teachers are good at it or at least not all of them were ready

for this sudden transition from face-to-face learning to online learning. Thus, most of the teachers are just conducting lectures on video platforms such as Cisco Webex, Zoom, and so on, which may not be real online learning in the absence of a dedicated online platform specifically designed for the purpose. There is a risk that in such a situation, learning outcomes may not be achieved, and it may only be resulting in engaging the students.

Relook at the Student Admissions Criteria

Due to COVID-19, the universities and colleges across the globe have started facing major threats in the domain of attracting students for admissions to various courses offered by them, and their retention in the system. In these difficult times, the risk of losing students is so high that the educational institutions will need to re-look at their admissions practices, admissions criterion, and the overall admissions process, which will include new methods of outreach and application process. Some countries, including the USA, has cancelled the visas issued to students for undertaking studies in the US universities and colleges, since the classes have gone online due to the threat of the pandemic.

Shift towards Blended Learning

The educational institutions worldwide are shifting towards blended learning, where both physical classes, as well as the online model, have become a norm. The adoption of this system requires all teachers to become technology savvy, by enhancing their capacities through some training intervention, to bring them to a level where they can perform their duties effectively and efficiently. This blending of physical education with the online mode may bring in a lot of synergies, as larger audience, and many routine teaching where the classroom presence is not required, may be addressed via online education very effectively.

Boost to E-Learning

Due to the greater dependence on online learning, vast opportunities have opened up for those IT and software companies that have been developing and strengthening learning management systems for use by universities and colleges. The learning management systems promoting companies, like BYJU's, Extra marks, and so on, have jumped at the available opportunity and have tried to capture the growing nascent market. This sector has the potential to grow at a very fast pace in the coming years due to the existing circumstances. However, the pricing of the LMS product needs to be appropriate so that all institutions, be it in the private sector or government-run educational institutions, may be able to afford the product for the benefit of the students.

Better Study Materials

The threat also provides greater opportunity to all educational institutions, schools, colleges, and universities, to start reviewing their study materials, to improve its quality for effective teaching and learning. The teachers need to be provided support in the form of case studies, quizzes, evaluation questions, past years' question papers, and so on, which could be shared with the students. Since blended learning has become the new normal, there will be a push to find new ways to design and deliver quality content, especially content that will bring about more openness and transparency in academics.

Collaboration and Cooperation

The teaching community, to a large extent, has been insulated from other sectors, more so in countries like India. Due to the lockdown and closure of institutions, a new opportunity has arisen, where collaborative teaching and learning can take on new forms and can even be monetised. Faculty members/teachers can deliver online courses to a large audience by use of technology, which may break the boundaries and culture barriers. Similarly, collaborations can also happen among faculty/teachers across the nation or on the international front, which will benefit them. A large number of academic meetings, seminars, and conferences, which earlier were planned in a physical mode, may become online. There is a possibility that some new form of e-conferencing platform may emerge for better services and reach.

CHALLENGES FACED

We have seen that due to COVID-19, the entire classroom teaching has been adversely affected worldwide. Even though an alternative has been created by way of online education on web platforms, a number of challenges still exist, which the education system has to address in the coming future. These challenges include:

Digital Divide

Of those who have been adversely affected due to the pandemic, it is the school-going children who have been the worst affected. As we are aware, a lot of differences exist between rich students, who generally prefer luxurious English medium public schools, and students from lower income families, who are forced to study in the poorly portrayed government schools. The lockdown due to COVID-19 has aggravated this class and social difference, especially between the private and public school systems, and has brought inequality among children into sharp focus. A minority of students attending urban private schools is seeing their education continue through standard digital platforms,

but for a majority of the pupils, the closure of their respective educational institutions due to the lockdown simply implies wastage of the full academic year in their learning journey, bringing all education to a complete halt. The matter is worse for dropouts, who even during the normal academic cycle often struggle to get the best of education. Now, they face the heat when very little resources are available to them during these testing times. These students almost certainly do not have access to the digital infrastructure at their homes required for remote learning. Further, children below the age of eight need parental support even to attend the online classes, which is a matter of concern for the working parents.

Lack of Readiness and Infrastructure for Teachers

The teachers across the country are scrambling to find ways to continue teaching their pupils in a situation where physical contact is no longer possible. Again, class and social divides play a big role in determining how successful teachers are in teaching schoolchildren during the pandemic. The teachers employed in public schools (premier private schools) are tech savvy and enjoy access to digital infrastructure and Internet facility at homes, which is essentially required to engage with the students and share course material. Some of these premier institutes have experimented with learning management solutions, which provides facilities like online homework submission, online evaluation, and other learning features. This minority of teachers employed in the private schools have been able to provide some e-learning experience to their pupils, ensuring continuity during this pandemic. This, unfortunately, is not the case when it comes to a vast majority of teachers in the country, as more than 20% of the primary school teaching positions lie vacant as of today. Even prior to the threat of the pandemic, a number of schools in the rural parts of India were run by just a single teacher and now the threat has just put a full-stop to the education of these children. According to a report from the World Bank, Indian school teachers are notorious for their absence from duty, and on any given day, only half of India's teachers are actually present in their respective schools. So, it may be seen that when around 50% of the teachers do not even teach when schools are open during normal circumstances, what will the plight of the students be when schools are under lockdown. Some teachers who are tech savvy and have updated their knowledge from time to time may thrive in this new world, but a majority of them will need to sharpen their axes not only in the technological domain, but also in other areas of teaching and learning. Due to the threat of COVID-19, the world is witness to learning without classrooms. However, if more and more teachers lack the teaching skills required in these circumstances, visualising a world without teachers would indeed be disastrous for mankind.

Unequal Access to Educational Resources

A number of websites on the Internet are open source, whereas quite a few of them are closed sites that cannot be accessed by everyone freely. This lack of access and exceptions to copyright may have an impact on the student's ability to gain access to the useful textbooks and other course materials required by them for their studies. Throughout the world, several initiatives have been taken by the respective authorities to educate the students and teachers about the open source learning materials readily available on the Internet, and to also explain to them about the copyright limitations. The International Council for Open and Distance Education issued a special website for dissemination of information regarding tips for online teaching and resources for teachers.

Nutrition and Food Security

Healthy nutrition plays a very important part in cognitive development and improvement of academic performance of children, especially in their formative years. Many children worldwide, including India, rely on government schemes, which provide them free or discounted meals at schools. In India, the Mid-Day Meal Scheme ensures that the students have access to wholesome nutritious food while they attend school. When schools close for any reason, the nutrition available to the students is compromised. According to a study in the IJIRMF, class 1 school enrollment in India increased by a staggering 30% after the Mid-Day Meal Scheme was implemented. This implies that access to food, much less access to education, is the key driving force behind school enrollment in India. Under these circumstances, if the lockdown continues for long, resulting in closure of schools, there is a chance that India's dropout rate, which is already among the world's highest, might increase further.

Student Learning Outcomes

It has been observed that schooling provides all round education and learning to the children at all times. When schools close for to any reason, the children and youth are deprived of the opportunities for growth and development. The under-privileged students, especially in the rural areas, are the worst affected, as they are in a disadvantageous position vis-à-vis students coming from higher income groups, as they tend to have fewer educational opportunities beyond school. This leads to the considerable decline in the learning outcomes of all students, especially the marginalised ones. Further, when schools close, it becomes the responsibility of the parents to facilitate their child's learning at home, which increases the parents' stress levels and hampers their performance at work. This is especially true for parents with limited education and resources.

Cash Crunch and Survival Woes of School Management

All over the country school owners and promoters are facing a major cash crunch because of the refusal of parents to pay the fees, when their children are not attending school due to the lockdown. Many schools, especially daycare centres, operate with a monthly fee structure and depend on fees for their operations. Due to the continuation of the lockdown, the payments to the schools have dried up. However, the expenses, including rent, salaries, and other costs, have remained the same. Many education institutions are structured as not-for-profit organisations or generate minimal profits, and therefore lack the cash reserves to deal with emergency situations like an extended shutdown. Due to the impact of COVID on the cash flow of the educational institutions, it is felt that the smaller schools that do not have the luxury of deep pockets might shut down permanently. To keep them afloat, the school owners are forced to downsize, renegotiate rentals with the respective landlords, and reduce all kinds of unnecessary expenditure. The petitions and PILs filed by the aggrieved parents against the school's policy of charging fees during the lockdown period keep compounding their miseries. The government plans regarding the reopening of educational institutions have not been spelt out as of now. All this while, though the Indian government has done a commendable job enforcing the lockdown, seemingly little has been pronounced about the government's resolve on education and how it wants to take the matter forward. So far, the news that is doing the rounds is that the school managements have been directed not to hike fees and charge only the tuition fees during the lockdown period. In fact, it seems that the government is not clear about its future strategy on education, and hence taking its own time to deliberate on the matter. Having a proactive strategy of what it plans to do would end the insecurities, and could help educators and school owners deal with the situation effectively. The government has also not announced any financial package for the education sector, while petitions and PILs against the schools in the court of law keep on mounting.

Stress on Parents

According to Child Rights and You (CRY), an Indian non-governmental organisation (NGO) working towards ensuring happier childhoods for all children, the major causes of students dropping out of school in India are attributed to impoverishment of parents and non-availability of resources. Being poor and unable to afford proper education is a family problem in India for which the children are not responsible in any manner. The impoverished parents actually look towards their children as an earning asset, who can add to the family income by providing labour to others. However, those children who actually study and attend schools are thus

unable to help their parents earn extra income. This makes a number of parents reluctant supporters of their child's education, even at the best of times. During the lockdown period, both the parents and children were home, both in the rural and urban areas, but not augmenting incomes in any way. Even after the lifting of the lockdown by the governments, many of the parents are still partially or fully unemployed and on the verge of using their limited savings. This implies that even when the schools or educational institutions reopen, a majority of the parents would not want their children to attend school, but rather help them support the family financially. The lockdown, resulting in students' online classes from home, have presented problems even for the well-to-do parents in the urban areas, wherein they have to help their children to set up an e-learning infrastructure at home. Further, the children have to be monitored around the clock. The parents have to deal with their stress and tantrums. It has become difficult for parents to juggle between their own work while working from home, household work, and children's online education. According to Studi Economici Dell'Ocse (OECD) studies, the performance of children in schools depends largely on students maintaining close relationships with teachers. This fact is particularly true for students who hail from disadvantaged sections of our society, where they do not have the parental support needed to learn on their own. Working parents are more likely to miss work when schools close, in order to take care of their children, incurring wage loss in many instances, negatively impacting productivity.

Strain on Mothers in the Healthcare System

Women make up almost 70% of the health care workforce, exposing them to a greater risk of infection. They often cannot attend work because of childcare obligations that result from school closures. This means that a majority of female medical professionals are not able to attend the health institutions where they are needed the most during such health crisis, and are taking care of their children at home. Further, the support of maid servants and other household workers have also dried up during this crisis, which has made the women stick to their nuclear family homes, thus neglecting their jobs. Thus, this has come as a big challenge for mothers who are healthcare professionals.

Impersonal Education

In classroom teaching, the student and teacher have face-to-face interactions with each other, which is refreshing, whereas e-learning comes across as a somewhat patchy and impersonal experience for both. E-learning is also likely to witness a high dropout rate due to the lack of a conducive environment for studying. The students have a number of distractions while attending online classes, like gaming

consoles and social media. They may even fake attending classes, where the mobile phone is switched on but the student is busy somewhere else. The attention showered on the students in the physical classes, which is a good reason for the success of the average students, has vanished, which may lead to poor results once evaluation is underway. The same formula for successful teaching and learning cannot be equally applied at all levels, starting from primary school students to college or university students.

The Quality of Study Material

As far as the quality of course material is concerned, it is observed that digital education has limited efficacy compared to the written study material provided by the educational institutes. E-learning provides the students with varied information in different ways, but the authenticity of such educational material is doubtful and should be tested before being circulated to the students. Creation of content, dissemination of content, and evaluation of content should be done in a very rational and logical manner by a team of experts in the best interest of the students. The records of e-study materials circulated online should be properly and safely maintained, to avoid hacking. Cyber security should be maintained. Digital safety remains a big challenge in this time of transition.

Examinations

Even though digital and online classes came to the rescue of the education system, the problem with evaluation and examinations still persist. Due to the digital divide, and non-accessibility of technology and digital infrastructure to all the Indian students, conducting online exams is just not possible in today's circumstances. How to evaluate the students and conduct the approaching examinations come as a big challenge for the education regulators. The regulatory bodies like UGC and CBSE recommend promoting the students to the higher classes based on internal evaluation in a majority of the cases, and postponing examinations for the final-year students. This is a glaring disadvantage, as postponed exams have a bearing on future admissions, entrance exams, jobs, off-shore admissions, and even percentage of marks.

STRATEGIES FOR MITIGATING THE ADVERSE IMPACT OF COVID ON EDUCATION

Since the advent of COVID-19, the education sector is facing a number of challenges never seen before, and it needs to respond to the situation and find viable solutions to keep the morale of the children high in these trying circumstances. A multi-pronged operational strategy will be required to fend off this challenge, which has the potential to uproot the earlier gains accrued in the education sector. This will not

only help in the survival of this sector, but also go a long way in building a resilient Indian education system. The UNESCO also made ten recommendations for effective use of online learning for sustainable education for the students during the lockdown due to the pandemic.

Some of the measures suggested are as follows.

Digital Learning Solutions

The UNESCO recommended that the governments world wide switch over to online teaching during the lockdown period and decide on the use of technological educational solutions based on the local availability of resources, like availability of power supply, quality of Internet connectivity, and competency of teachers and students in online learning. It recommended, that with the situation and infrastructure availability in the countries, relevant solutions from among a variety of options available, including integrated digital learning platforms, video lessons, MOOC, and broadcasting through radios and televisions, may be chosen. In India, at present, immediate measures are required to start some form of teaching and learning in government schools, colleges, and universities, to at least ensure continuity of learning. A lot of time has elapsed since the educational institutions were closed due to the lockdown and the online classes are only running in the private schools. The government schools do not have access to e-learning platforms. It is suggested that open-source digital learning solutions and Learning Management Software like DIKSHA should be sourced by schools so that teachers can start conducting online classes. The DIKSHA platform provides the teachers, students, and parents well researched content and course material relevant to the prescribed school curriculum. The teachers have access to teaching aids like lesson plans, worksheets, and activities, to create enjoyable experiential learning experiences. The students understand the concepts in a better manner, have the option to revise the lessons online, and attempt practice exercises. The parents are at liberty to follow classroom activities and get their doubts clarified, if any, even beyond the school hours. The DIKSHA platform, which has a wider reach across all states in India, can be further improved and strengthened, to ensure inclusive learning to all the students. The UNESCO advised the governments to organise brief training or orientation sessions for teachers as well as parents, if monitoring and facilitation are needed. The governments should also help teachers prepare the basic settings, such as solutions to the use of Internet data, if they are required to provide live streaming of lessons.

Inclusive Learning Solutions

The UNESCO advised that the respective national and state governments should take effective steps to implement measures for ensuring that all students, including those who

are differently abled and come from marginalised sections of the respective societies have equal access to distance learning programmes. In case the nation does not enjoy adequate digital infrastructure, and only a limited number of students have access to digital devices, then the respective governments should support the families by providing them with devices having Internet connectivity. In view of the UNESCO recommendations, inclusive learning solutions, especially for the most vulnerable and marginalised sections of the Indian society, need to be developed so that the negative impact of lockdown on the education of weaker sections is ameliorated at the earliest, with minimum collateral damage. The far-reaching and very fast coverage of mobile phones in India point towards an imminent solution, which can pave the way for accessing education through the devices. The rapid increase in mobile Internet users in India, expected to reach 85% of the households by 2024, may be the technological answer the society is in search of, to provide ubiquitous access to education, even in the remotest parts of the country. This strategy is a game changer and has the potential to change the schooling system and also increase the effectiveness of learning and teaching. Many aspirational districts of various states in India have already initiated measures to introduce innovative and web- and mobile-based learning models for effective delivery of education to the children, and the same, if found fit, can be adopted by other states and union territories.

Industry Academia Linkages

Dynamic strategies are required to prepare the higher education sector for the evolving demand–supply trends across the globe so that the courses and student skills become relevant to the industry. This will help facilitate global mobility of students and faculty, and improve the quality of higher studies in India. Immediate measures are required to mitigate the effects of the pandemic on job offers, internship programmes, and research projects. The industry and academia have to come out of their silos and work together to create educational products required by the industry. These may be short-term courses, skill development programmes, and medium- and long-term diploma and degree programmes. Further, the industry should help in student internships and provide practical experiential learning to the students. All educational institutions should have eminent people from the industry as their Board of Governance members, to advise them on the industry academia linkage issues.

Blended Education

As the situation has warranted, the time has come to reconsider the current delivery and pedagogical methods in school and higher education, by seamlessly blending

classroom learning with e-learning modes, to build a unified inclusive learning solution. One of the major challenges faced by education technology today is providing the structure and set-up for seamless integration of technology in the present Indian education system, as our education system is one of the most diverse and largest in the world. We have over 15 lakh schools and 50,000 higher education institutions spread in the nooks and corners of the country. Further, it is also necessary to establish quality assurance mechanisms and quality benchmarks for online learning developed and offered by Indian higher educational institutions, as well as e-learning platforms. The UNESCO has recommended blending of tools or media that are available for most students, both for synchronous communication and lessons, and for asynchronous learning. In addition, the said UN body has recommended the authorities not to overburden students and parents by asking them to download and use too many digital applications or platforms.

Virtual Internships

In this time of international crisis, well-rounded and effective educational practices are required for the empowerment of our youth. This strategy is required to develop the skills of the students, which will help them improve their employability potential, productivity, health, and well-being in the times to follow, thus ensuring the overall progress of our country. One of the opportunities that exists in today's situation is virtual internship, which is helping the students go beyond their curriculum and learn about new and practical aspects of their professions. The colleges, universities, and other higher education institutions are encouraging their students to view the current scenario as an opportunity to sharpen their skills through online courses on upcoming fields like artificial intelligence, robotics, gaming, ethical hacking, and so on. This will help the students build up their capacities for future assignments and prepare them for all eventualities arising in the future. This practice will instill more confidence in the students and help them get rid of chaos or panic.

Stress on Emotional Intelligence

As the students have been locked down in their respective houses for around five months now, a number of them are facing mental health issues. Therefore, the educational institutions, apart from providing interactive and virtual learning, are also going beyond the syllabus to appraise the students about stress mitigation, goal setting, emotional intelligence, and so on, in order to prepare them for the crisis which is in no hurry to depart. This parallel education about coping with their anxiety, stress, and the current state of chaos, fears, and emotions is helping the students maintain their mental health, making them aware of how

to deal with such situations. Simultaneously, teachers and the faculty members are also being sensitised in tackling the current crisis situation prudently. Online community and support groups are doing the job of strengthening the teaching and the learning system. This focus to strengthen the emotional intelligence of the students is as per the UGC guidelines of providing psychological support to students. The UNESCO recommended that the governments and education administration should mobilise available tools to connect schools, parents, teachers, and students with each other. Student and learner communities should be created to ensure regular human interactions, enable social caring measures, and address possible psychosocial challenges that students may face when they are isolated.

Data Privacy and Security

The UNESCO further advised that since the teaching and learning will go online, data privacy is a key concern and all such issues related to data privacy and data security should be promptly addressed. It may be ensured that the use of applications and platforms does not violate students' data privacy. It advised the governments and nations to assess data security, both while uploading data or educational content on the web, as well as when sharing the same with the respective students, teachers, and other organisations.

Plan the Course

As per the UNESCO guidelines, the educational administrators should not take any unilateral decisions regarding the operationalisation of online classes, rather they should interact with the stakeholders to finalise the possible duration of online classes every day, and decide whether these lessons should focus on teaching new areas of the subject or revise the lessons already covered by the students earlier. The teaching schedule should be planned by the educational administrators, keeping in mind the situation of the affected zones, level of studies of the students, the learning needs of the students, and availability of digital infrastructure. Relevant teaching methods should be chosen based on the duration of the school closure and status of students in home quarantine condition. As far as possible, teaching methods that encourage physical presence and face-to-face communication should be discouraged. The UN body recommended fixing a coherent timing for the live online classes based on the level of the student, their learning capacity, and met cognitive abilities. It was suggested that the primary school student's online classes should not exceed 20 minutes, whereas for secondary school students the time recommended was 40 minutes.

Monitoring and Evaluation

The UNESCO has also observed that the educational authorities need to define online teaching, learning, and evaluation rules with other stakeholders, including parents and students. The teachers should design formative questions, tests, or exercises, to monitor and evaluate the progress of the students and the learning outcomes. The educators, as far as possible, should employ easy-to-use tools to support submission of student's assignments, evaluation sheets, and feedback, rather than burdening the parents with one more chore on behalf of their wards.

CONCLUSION

The COVID-19 epidemic has hit all the educational institutions very hard. However, in the schools, which have always been the epitome of dynamic real-life, physical interaction has taken the hardest punch. As billions of students around the world strive to learn from their residences, it will be interesting to catch upon how the academicians in general, and the education sector in particular, will face the novel challenge of studying from home. In India, the technological solutions and digital infrastructure available to face the challenges seem limited only to the elite urban-centric institutions. However, if the lockdown and the suspension of physical classes continue unabated, then there is a real, urgent requirement of cheap, accessible technologies that can help Indians learn through the online mode, especially in the most remote and vulnerable parts of the country. To cope with the current situation, building of the digital education infrastructure instantaneously by the Government of India presently appears to be impossible due to the lack of financial and other resources. Further, let us imagine, even if such a kind of infrastructure comes up, the teachers and faculty resources would need to be capacitated to effectively use the online system, to provide authentic, uninterrupted, seamless, and inclusive education to all the students. Distance learning excessively depends on the uninterrupted availability of reliable power supply and ubiquitous Internet connectivity, which in today's circumstances seem far-fetched, especially in rural areas, Tier 2, and Tier 3 cities of India. It should be kept in mind that only 45 crore people, out of 135 crores of the total population, have access to Internet, and thus to e-learning. The people cohabiting in rural areas are still deprived of such latest technological advancements, and therefore, online learning is just not possible for them. Further, virtual classrooms also require access to e-content and online study materials, practice sheets, evaluation, monitoring, assignments, and so on, which is very much lagging in India as digital education is still to reach all nooks and corners of the country. The students who are less privileged will be automatically held back due to the current

crisis, which may have a bearing on their future. However, the cribbing and criticism will do no good as this is not the time to wait and let the tide pass, but by default, it has brought the opportunity to rise and re-engineer the education sector for the benefit of all. While the uncertain times call for tough steps and decisions, the education industry has tried to rise to the occasion. The pandemic has actually been working as a catalyst for the educational institutions to innovate and jump on the digital bandwagon as never before, for their own survival. Surviving this unknown and unpredictable crisis with a creative approach and complete utilitarian digitisation of the education sector will get the industry through the storm and wash away the blues of the pandemic. The UNESCO has suggested certain guidelines for online classes and better use of digital infrastructure. The future, it seems, is blended learning.

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