Education in pandemic: The changing scenario of teaching and learning

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Abstract
Now a days, the world is facing a devastating and distressing situation in the wake of a destructive pandemic known as 'CORONA'. This pandemic has directly or indirectly influenced every aspect of human survival and the most affected part is education. Corona has attacked our roots by shutting down the traditional system of imparting education completely. To keep the education system continue and to ensure the growth and development of our next generation, we have opted different online resources for teaching-learning. But this newly emerged process of imparting education through virtual modes face many challenges in the sub-continent especially in India. The paper discusses the concept and understanding of online education and its challenges in Indian perspective. After putting light on the challenges that we are facing today, the paper concludes that India has to cope up with these hurdles for future preparations. Undoubtedly, virtual education cannot replace the traditional way of teaching but none can deny that embracing the alternative modes is the way forward. Therefore, the online teaching-learning is the need of the hour.

Introduction

Every progressive human being wants to grow up, to do something and to move forward in life and for this they need to acquire existing knowledge and have to generate new knowledge. Education is the only means that makes a man capable of acquiring and generating knowledge. Education is a continuous, comprehensive and life long process where an individual acquires competencies in different fields in formal as well as non-formal settings but with the rise of Covid-19 pandemic all over the world has put the continuous process of imparting education to a halt. To break the chain of Covid-19 pandemic and ensure the safety and wellbeing of our children, governments all over the world have decided to close educational institutes at all levels. This decision may prove to be good and effective to curb the spread of infection but according to UNESCO report it has kept approximately 157 crore students out of the classrooms globally. No country can ensure its progress without educating its young ones. Therefore, to maintain the path of progress even in the pandemic, education system has used its alternative option available i.e. education through technology or online education.

Shifting the entire educational program into the hands of technology is not a big task for developed countries that have advanced technological infrastructure and online resources for imparting education but in developing countries like India, it is a mammoth task. According to UNESCO report, in India, pandemic has impacted the 32 crore students. The report indicates that more than 13 crore Indian students who belong to secondary schools i.e. from 9 to 12 have been impacted severely. Therefore, India has to explore different online teaching-learning modes to maintain the flow of education in this distressing time.

Online Education: Need of the Hour

Time is changing fast and technology is overtaking even faster than that. The biggest challenge before us is to educate our children as per the need of the hour. Before pandemic, students used to go to school everyday and learn various things by participating in different activities. But with the closure of schools for an indefinite period, the process of learning has been halted. To keep the growth of the students in continuation and maintain the learning curve, the only option available is online education. Online education is the process of imparting education through the use of digital devices and internet services. Online education promotes the use of information and communication technologies (ICT) to facilitate and ensure knowledge generation and transmission. Online education is the advanced version of distance education where education is imparted on 'anytime and anywhere' basis. In India, to keep the process of imparting education alive, teachers are using different platforms to promote online teaching and learning like Zoom app, Google Meet, Google class, Microsoft teams. Teachers have changed their way of teaching and continuously trying to evolve new methodologies to deal with this overnight shift of academics to online due to Corona pandemic.

Today's generation is much more techno-friendly than their predecessors. They enjoy and learn more efficiently with pictures, animations and videos. They can assimilate new knowledge easily through the use of audio visual tools. Shifting the traditional classroom teaching to online education is not mere the use of technology in teaching, instead it is a shift from usual lectures to a more interactive and brainstorming process. Online education provides students more flexibility in terms of time, place and pace. It imparts knowledge through two ways: synchronous and asynchronous. Synchronous learning refers to the teaching-learning practices conducted in real time i.e. at a fixed schedule. In synchronous learning, all the students of the class or a group learn about a topic at the same time and for

this they must be present in online environment at the scheduled time. During a synchronous learning there occurs the interaction among students and teachers. Live webinars, zoom classes, Google meet are some platforms that provide the opportunity for synchronous learning. Opposite to this learning there is asynchronous learning where no real time interaction takes place neither between teacher and students nor among the students. In asynchronous learning all the participants of the group learn according to their own availability of time, there is no need to be online at the same time, everyone is free to learn the subject either from pre-recorded videos or e-content available all the time. YouTube channels, recorded webinars, e-content and recorded voice content are some sources of asynchronous learning. This can be concluded that all the forms of online education are encouraging, provide great flexibility and options to the learners but still, the moment online education moves from optional to the only option available, it is bound to face many challenges and hurdles in Indian perspectives.

Challenges that Block the Progress of Online Education in India

'Rome was not built in a day.' The English proverbial expression is very much apt to the context of the discussion. It always takes time to embrace a change. Change comes gradually but certainly. In order to rebuild the collapsed system of education in this pandemic-marred scenario, we have opted for the possible effective modes to let the process of imparting education continue as the old saying goes on "Necessity is the mother of invention." But there are various difficulties and challenges in the virtual transformation.

Lack of Digital Literacy of Teachers

The ongoing crisis is unprecedented and none had expected that such an urgency and emergency would ever prevail. India is fast developing nation and we are advancing into the world of technology by leaps and bounds. We introduced flipped classrooms, education technology and blended learning and developed smart classes along with implementing digital platforms like SWAYAM and MOOCs to provide a base to our learners so that they could adapt themselves to online learning. Eventually this happened all of a sudden and our teachers could not be trained to impart education in this scenario. Most of the teachers are still not friendly with the usage of mandatory equipments required to conduct an online CLASS.

Dearth of Supportive Devices and Technical Glitches

We are not very much advanced when it comes to technology and its usage. Some of the learners are able to perform their tasks using technology and technical gadgets but majority of the learners is not techno-savvy. They need external support and assistance. The lack of latest and advanced versions of devices such as smartphones, bluetooth, laptops and other equipments make the online learning difficult. Besides, there are areas where high-speed internet connectivity is a dream. The dearth of supportive devices and technical glitches hinder the path of learning and create boredom and lethargic environment that kills the learners' interest and aspiration.

Lack of Basic Training

The majority of school going adolescents are not briefed about the usage of computer and other related devices. There are hardcore theoretical classes conducted without any practice session in the name of computer classes. Even examinations for awarding certificates are purely theoretical and concepts based. In this scenario, when the mode of teaching-learning takes a drastic shift overnight, things slip out of hands. Teachers are not well trained for generating e-content and delivering it to the students through online platforms effectively and learners who lack basic computer skills are not able to solve different issues they come across during e-education.

Limitation of Infrastructure and Other Facilities

A vast majority of people in India come under the 'Middle Class' and the majority of middle class fall into the category of 'Middle Middle Class' that survive in a small house with very basic and limited facilities. These houses consist of hardly one or two rooms in totality. Effective learning requires facilities like a separate room for the learners, personal equipments and a quiet place where the routine activities of a house do not reach. Therefore, virtual learning is interrupted due to the unavailability of basic infrastructure and other facilities.

Lack of Adaptability and Time Management

Adaptability to new mode of teaching is something that determines its success and effectiveness. But failing to adapt to something only yields frustration and fatigue. Using internet for online shopping, maintaining social relations, and playing game is very common but due to sudden shift in mode of education, teachers as well as learners are not able to adapt to online education. It is very difficult for the learners to adapt to new learning environment where they have to sit quietly and learn by watching a screen in place of traditional classroom learning environment where they enjoy the learning by involving themselves along with others. Teachers also find it difficult to cope up with the class where they don't get feedback in the form of students' reactions because of lack of eye contact and body language which is difficult to perceive. Non-adaptability also hinders a schedule and hampers time management.

Chicken-Hearted Approach and Over Sensitivity

In our country, people are usually reluctant to adopt a change brought forth, and instead of adapting to it, they get suspicious about it. Remember, when computer systems were installed into the important government offices dealing in crucial public service like railways, banks and hospitals, a large number of officials backed by unions went on a strike demanding the revocation of the newly introduced technology in offices as they thought that the installation of computer systems would leave them jobless and they would be thrown out of the office. There were regional parties that declared in their manifesto that they would ban 'the usage English and Computer' in public as they might affect adversely and make people unemployed. Therefore, we are naturally susceptible to the changes around.

Lack of Interaction and Isolation

We are accustomed to interact with one another during the process of teaching and learning. It happens from both sides: teacher as well as learners. The interaction within a classroom keeps the learners engaged, enthusiastic and energetic. The virtual learning has hardly any scope for this

kind of interaction and engagement within the class. It paves way for Isolation. The students being deprived of engaging and interacting with one another feel demotivated, depressed and isolated. Education is not only a process of imparting content knowledge but it aims to ensure the development of necessary skills required to live professional as well as personal life successfully. Online education hinders the holistic development of children because of lack of interaction and communication among students during the process of learning.

Inaccessible for Rural Communities
Education of the students living in the rural areas is even more adversely affected than the students living in the urban areas. Children of rural background face many challenges in accessing online education among which interrupted power supply, weak internet connectivity and lack of necessary devices are the major ones. Online education is something that is still beyond the reach of rural India as it is difficult to gather adequate resources and internet data in time when they have to struggle for basic requirements. Many surveys have concluded that there is no or single smart-phone in a family belonging to rural areas out of these half of the families could not afford heavy internet packages.

Digital Divide
Digital divide is the gap between people that is connected with the availability of the internet. Mossberger, *et al.* (2003) [2], in their book, Virtual Inequality, defined digital divide as "the pattern to unequal access to information technology based on income, race, ethnicity, gender, age and geography." The shift of education from traditional classroom to the online platform is something that is only enjoyed by the privileged. However, families with average and low income find it difficult to make online education available to their children. At the same time boys are getting more opportunities for online education than girls as the families have limited resources and boys' education is seen as priority. Due to this unequal distribution, India is at the risk of creating one more class of disadvantaged i.e. digitally deprived.

Apart from the above identified and discussed challenges such as accessibility, affordability, flexibility, learning pedagogy, substantial issues of reliable internet connection, and access to supportive digital devices, there are various areas of concern that cannot be taken into isolation like lack of parental guidance and support, vulnerable group of learners consisting weak students have the problems of supervision and counselling and rising issues in assessment and feedback. The challenges need to be sorted out as soon as possible to make online teaching-learning effective.

Conclusion
'Sweet are the uses of adversity.' The Shakespearean expression reaffirms that adverse circumstances and difficulties are the gateways of unimaginable human potential, indomitable spirit, unwavering courage and untenable strength. The pandemic has made us to explore our hidden might and capabilities that we can well utilize to put up a brave fight against the ill effects of the surge caused by COVID-19. We are fighting the toughest the battle of human history, where we have to save fellow humans on one hand and ensure the smooth sailing of the noblest services such as education, healthcare and medicine

that are essential for human survival and its existence. Smooth road never makes a good driver and a calm sea never creates a good sailor. Education in the pandemic has posed an enormous challenge for us and we have stood the test of time. We have gone through a paradigm shift at the earliest by switching to online platforms to ensure smooth imparting of education. Our teachers deserve all the acknowledgement and appreciation who transformed themselves overnight by learning the basics of conducting online classes, changed their teaching methods and methodologies and tried their level best to ensure its success. Education through virtual modes is the need of the hour as we cannot risk the safety and wellbeing of our learners and their parents. Online education will contribute to control the surge of the pandemic. When millions of young people have been urged to stay at home like the other members of their families, and when the educational institutions have remained closed, online education appears to be the only alternative to ensure the continuity of education of these students. But the question remains as to whether we were prepared to utilise these substitute means of providing education in our country without diluting the quality of education to be imparted to our students.

There is no denying that there are various problems such as inadequate infrastructure, lack of digital literacy, lack of engagement and interaction, poor internet connectivity, lack of mandatory equipments and oversensitivity to adapt are the potential challenges that pose a threat to the success and effectiveness of online education. Undoubtedly, there are many obstacles and hindrances that need to be properly investigated and resolved. Taking on these hurdles with strong determination and a sense of commitment will not only solve the problems at hand but also pay way for digital mode of teaching and learning. With some refinements and fixing the loopholes, online education has every potential to emerge as a possible alternative to traditional way of imparting education.

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