COVID 19: A catalyst for e-learning

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The World Health Organization has declared the pandemic of the novel SARS-CoV2 infection early 2020 and it has now become a major public health challenge worldwide. The infection control and physical distancing measures are crucial to prevent the virus from further spreading and help to control the pandemic situation. Any freak accident that happens in the world will always leave its impact on education. And so the epidemic of COVID 19 has its footprints on education.

The purpose of education is to mold a person to be perfect. Education provides the pathway to reach their destiny. Education helps in inculcating social responsibilities as well. The main core of education is to learn. With the COVID-19 -a novel corona virus disease spreading across the globe, the policy of compulsory physical distancing has been implemented in many countries including in India, resulting in nationwide school and university closures. Educational institutions have come to a functional standstill since they had to protect their students from viral exposures, which are likely in a highly socializing student community. The outbreak of this dangerous virus across the globe has forced educational institutions to shut down to control the spread of this virus.

In the beginning of February 2020, schools only in China and a few other affected countries were closed due to the proliferating contamination. However, by mid-March, nearly 75 countries have implemented or announced closure of educational institutions. As on 10th March, school and university closures globally due to the COVID-19. According to UNESCO, by the end of April 2020,186 countries have implemented nationwide closures, affecting about 73.8% of the total enrolled learners (UNESCO, 2020). Even though the lockdown and social distancing are the only ways to slowdown the spread of the COVID-19 by breaking the chain of transmission, closure of educational institutions has affected large number of students. As the schools and colleges are shut for an indefinite period, both educational institutions and students are

experimenting with ways to complete their prescribed syllabi in the stipulated time frame in line with the academic calendar. These measures have certainly caused a degree of inconvenience, but they have also prompted new examples of educational innovation using digital interventions. This is a silver lining on a dark cloud considering the sluggish pace of reforms in academic institutions which continues with millennia-old lecture-based approaches in teaching, ingrained institutional biases and obsolete classrooms. Nevertheless, COVID-19 has been a trigger for educational institutions worldwide to pursue creative approaches in a relatively short notice. This epidemic made the teaching professionals thinks of alternative methods of teaching during this lockdown. And thus it paves the way towards web-based learning or e-learning or online-learning.

Educational institutions in India have also made a transition to online teaching learning environment soon after Union Government's decision to impose nation-wide lock-down for 21 days from 25th March, 2020 which was later extended for 19 more days. The teaching and learning activities were immediately shifted to a full e-learning. Learning is a process of acquiring knowledge or skills through study, experience, or being taught. In today's scenario, learning has stepped into the digital world in which teaching professionals and students are virtually connected. e - learning is quite simple to understand and implement.

e-learning is defined as learning that makes use of Information and Communication Technologies (ICTs). The incorporation of technological resources and innovative education strategies has transformed the teaching and learning processes. Previous studies have shown various e-learning and online-learning tools that are effective for teaching and learning in the fields of health profession. The knowledge gained and performance of the students as a result of e-learning was shown to be equivalent to that of face to face methods. The use of a desktop, laptop, or smart phones and the internet forms a major component of this learning methodology. e-learning provides rapid growth and proved to be the best in all sectors, especially in education during this lockdown. Besides, online teaching mode is providing the feeling of psychological safety to learning community in COVID-19 afflicting period.

The **aftermath** of COVID-19 crisis, online education became a pedagogical shift from traditional method to the modern approach of teaching-learning from classroom to Zoom, from personal to virtual and from seminars to webinars. Previously, e-learning, distance education and correspondence courses were popularly considered as the part of non-formal education, but as of now, it seems that it would gradually replace the formal education system if the circumstances enduringly persist over the time. Some of the most popular online communication platforms that would change the destination and direction of the whole education system across the world in post-COVID-19 circumstances are Start.me, Neo, Classtime, Classwize, Ted-Ed, Coursera, Google Classroom, Bak- pax, Pronto, Skillshare, ClassDojo, Edmodo, Blackboard Learn, Parlay, Docebo, Feedback Fruits, Udemy, WeVideo, WizIQ, Flipgrid, Codeacademy, Gynzy, Adobe Captivate, Seesaw, Edx, GoGuardian, Elucidat, Kami, Pluralsight, G Suite, Otus, Articulate 360, Floop, Future Learn, Hapara, Shift, Lectora Inspire, Kialo Edu, Buncee, LanSchool and many more. De-schooling society (Illich, 1971) seems relevant as the current scenario tries to keep our children away from the traditional formal education system and provide an opportunity to flourish on their curiosity.

However, the major concern is about the quality of learning which is closely depends on how well the content is designed and executed. Effectiveness of learning also depends on how the content is curated to online environment and also in understanding and addressing the constraints faced by students. The questions about the preparedness, designing and effectiveness of e-learning is still not clearly understood, particularly

for a developing country like India, where the technical constraints such as suitability of devices and bandwidth availability poses a serious challenge.

The major challenges while teaching online was the unstable network connection. If the videos and audios of the students were kept off, the connection remains more stable, but that mode of teaching seems to teach to a blank wall. Moreover, some of the students had not essential resources to join online. So, the difficulties with online teaching were both technical and ideological. Most of the challenges include uninterrupted electricity connection, intermittent signal issues, level of understanding, lack of scope for meaningful interaction, the range for innovative teaching, and mechanical conduct of classes were the significant challenges. Teachers were unable to read the face and mood of students, and thus difficult to change the teaching pattern. Besides, a lack of motivation as immediate feedback was not possible in this online teaching-learning transition phase. There is grave concern over the laboratory activities for the research scholars during the lock- down period and demanded simulation techniques in laboratory practical. Teachers were in a dilemma as they were not sure whether the students switched on the computer for the namesake or actively present at the moment or sitting somewhere; no clue about the participation. It was found that the most students came from remote areas with low socio-economic conditions of the family, therefore, during the lockdown period when they needed the laptop for online-learning but they could not do so as they did not have desktop or lap- top at home and the mobile phones were not found enough effective to participate in online classes.

Since online teaching-learning in pandemic was a new experience for both teachers and students. Online teaching is a rather exciting concept of teaching for Indian teachers in general. Initially, there is reluctance on the part of students and teachers as well, but subsequently, its' race gained momentum as e-learning becomes a necessity rather than a choice.

Radha R et al. (2020) found out the student's attitude towards e-learning. Primary data was collected from national and international wise through Google forms which include the student community from various schools, colleges, and universities. It aims to study the E-learning process among students who are familiar with web-based technology. It also helps to find out solutions to improve the self-study skills of students. The stratified sampling method was adopted and the sample size was 175 across the world. Study concluded that e-learning has become quite popular among the students all over the world particularly, the lockdown period due to the COVID-19 pandemic.

A study conducted by **Muthuprasad T** et.al (2021) focuses on understanding Agricultural Student's perception and preference towards the online-learning through an online survey of 307 students with objective to find student's preferences for various attributes of online classes, which will be helpful to design effective online-learning environment. The results indicated that majority of the respondents (70%) are ready to opt for online classes to manage the curriculum during this pandemic. Majority of the students preferred to use smart phone for online-learning. It was found that students prefer recorded classes with quiz at the end of each class to improve the effectiveness of learning. The flexibility and convenience of online classes makes it attractive option, whereas broadband connectivity issues in rural areas makes it a challenge for students to make use of online-learning initiatives. However, in agricultural education system where many courses are practical oriented, shifting completely to online mode may not be possible and need to device a hybrid mode, the insights from this article can be helpful in designing the curriculum for the new normal.

Another study conducted by **Mishra L** et al. (2020) is a portrayal of online teaching-learning modes adopted by the Mizoram University for the teaching-learning process and subsequent semester examinations. It looks forward to an intellectually enriched opportunity for further future academic decision-making during any adversity. The intended purpose of this paper seeks to address the required essentialities of online teaching-learning in education amid the COVID-19 pandemic and how can existing resources of educational institutions effectively transform formal education into online education with the help of virtual classes and other pivotal online tools in this continually shifting educational landscape. It both quantitative and qualitative approach to study the perceptions of teachers and students on online teaching-learning modes and also highlighted the implementation process of online teaching-learning modes. The value of this paper is to draw a holistic picture of ongoing online teaching-learning activities during the lockdown period including establishing the linkage between change management process and online teaching-learning process in education system amid the COVID-19 outbreak so as to overcome the persisting academic disturbance and consequently ensure the resumption of educational activities and discourses as a normal course of procedure in the education system.

Mahyoob M (2020) conducted study aims to determine the challenges and obstacles confronted by English language learners (EFL) in Science and Arts College, Alula, Taibah University, Saudi Arabia, during switching to online-learning in the second semester of 2020 due to the COVID-19 pandemic. The contribution of this study is to evaluate the learners' new experiences in online education and to assess the feasibility of the virtual methods of learning. This is achieved by analyzing 184 learners' responses to the survey-based questionnaire. With descriptive statistical method it was found that the main problems that influence and impact online EFL learning during COVID-19 are related to technical, academic, and communication challenges. The study results showed that most EFL learners are not satisfied with continuing online-learning, as they could not fulfill the expected progress in language-learning performance.

Amir R et al. (2020) conducted study aimed to evaluate the student perspective of distance-learning (DL) compared to classroom learning (CL) in the undergraduate dentistry study program at the Faculty of Dentistry University, Indonesia. An online questionnaire was sent at the end of the semester. A total of 301 students participated in the study. Results showed that the duration of study influenced student preference. Higher number of first-year students preferred DL compared to their seniors. Students preferred CL for group discussion, as DL resulted in more difficult communication and gave less learning satisfaction. Only 44.2% students preferred DL over CL, although they agreed that DL gave a more efficient learning method (52.6%), it provided more time to study (87.9%) and to review study materials (87.3%). Challenges during DL included external factors such as unstable internet connection, extra financial burden for the internet quota and internal factors such as time management and difficulty to focus while-learning online for a longer period of time. Despite some challenges, dental students could adapt to the new learning methods of full DL and the majorities agreed blended learning that combined classroom and distance-learning can be implemented henceforth.

Programmes and policy of the government of India on online teaching-learning

The government of India started thinking gravely on this matter with emphasizing on ICT and use of online education as the part of compulsory teaching-learning process at tertiary level. Moreover, it is reflected on preparing draft new education policy 2019 that has been regarded as a proactive and highly techno-efficient step in the time of this pandemic. Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) is a programme or Massive Open Online Courses (MOOC) platform initiated by the government of India hosted online courses in different quadrants. The SWAYAM PRABHA is a group of 32 DTH channels

dedicated to telecasting of high-quality educational programmes through- out the week. Annual Refresher Programme in Teaching (ARPIT) is an online professional development programme launched by the MHRD on November 13, 2018 using SWAYAM platform. Another initiative of MHRD was e-PG Pathshala run by the University Grants Commission (UGC) that provided high-quality curriculum-based and interactive e-content in 70 subjects across all disciplines. e-Pathshala is a portal jointly run by the MHRD and National Council of Educational Research and Training (NCERT) launched on November 7, 2015, that provided educational resources for teacher educators, teachers, research scholars, students and parents through an online-learning platform. Therefore, it can be said that we were not unaware of the challenges and prospects of online education.

India's apex regulatory body of higher education, UGC, has taken the present educational scenario very seriously and put some efforts proactively to resolve the deadlock of completing courses and examinations in on-going semesters as well as issued circular regarding the academic calendar after the recommendations of one of the committees constituted by UGC itself. It has also become mandatory for all the universities in India to complete the 25% syllabus through online teaching mode and 75% face-to-face interaction (UGC, 2020).

The educational scenario of the post-COVID-19 outbreak would not be easy to manage teaching- learning situations without using online teaching platforms rigorously. Having seen the fearsome monster of corona virus, it can be anticipated that in the upcoming time student would face multiple challenges of educational hardships including quality education, hands-on experience, laboratory work, library visit, peer tutoring, remedial teaching, research and innovation. Hence, the tentative solution of post-COVID-19 educational tantrums is to maintain the equilibrium of online and offline-learning classes (hybrid mode).

Recommendations

It is recommended that further research should be undertaken to understand the students and teachers' perceptions, challenges and experiences towards e-learning during the pandemic and SWOT analysis of e-learning.

Conclusion

E-learning seems to be the forthcoming trend. It has been extending widespread. The online method of learning is best suited for everyone. Depending on their availability and comfort, many people choose to learn at a convenient time. This enables the learner to access updated content whenever they want it. Due to the wide set of benefits, it gives to students. This current COVID-19 pandemic, changes not only the utilization of technology in education but the pedagogy strategies in the future.

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