

Challenges and Opportunities for Higher Education amid COVID-19 Pandemic

Rakesh C Ramola*

Department of Physics, H.N.B. Garhwal University, Badshahi Thaul Campus, Tehri Garhwal – 249 199, India

e-mail: rc.ramola@hnbgu.ac.in

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Abstract: The COVID-19 pandemic has significantly disrupted the higher education sector all across the world. It has also posed a serious challenge to the existing system of higher education in India. The spread of COVID-19 pandemic has forced higher education sector of the country to shift its base online and almost all universities and colleges have started teaching their students through online platforms. Despite of all odds, the country made significant progress in online education to the students of higher studies. It was felt those technically sound professionals are required to improve the quality of online teaching in future. The institutions should also come forward to improve the quality of education through modern technology. They must also develop the facility for providing online education to all enrolled students in the country. The current situation should be seized as an opportunity to develop new techniques to impart education that would be user friendly and accessible to all. The country should try and use the current opportunity to improve its educational base. It is about time that regulatory authorities and educationists of the country should work out strategies and spell out rules and regulations to be followed for quality education in the future.

Keywords: COVID-19 Pandemic, Higher Education, Online Teaching-Learning, Challenges, Opportunities

1. Introduction

The education is one of the severely affected sectors all over the world due to the Covid-19 outbreak. Almost all schools and colleges worldwide had to stop face-to-face education and more than two billions students were forced to continue their education online. Most of the countries were neither prepared for this crisis nor ready for effective online teaching. The pandemic changed the traditional structure of higher education system all over the globe. The research work was also hampered badly. The closure of universities and colleges, not only affected students, teachers and their families, but also created the social and economic problems

all over the world. Physical distance, food safety, digital learning and social issues have limited to home environment only. It was necessary to shut down the educational institutions because these are the places having suitable environments for the spread of COVID-19.

The virus, first reported in Wuhan City, China in late December 2019, spread all over the world, mainly because of the travel from China to other countries [1-3]. In India, first COVID-19 case was reported on 30 January 2020 [4]. Academicians frequently travel abroad to attend various academic activities and long/short term exchange programmes. Universities have student exchange programmes within and outside the country. Students also

have a mass gathering in the classrooms, hostels and most of them use public transport daily. The student population in India is more than 400 million, out of which about 38 million students are enrolled in higher education. With more than 40,000 colleges and universities, the Indian higher education system is one of the largest in the world [5, 6]. A large number of the student population are day scholar and they frequently come in contact with elderly population around them and thus increasing the chances of spreading the virus. It was therefore reasonable to close all educational institutions to avoid the spread of the virus among the young as well as older people at large scale.

2. Challenges and Opportunities

The seriousness of the COVID-19 spread in the country was observed in the third week of March 2020. As a precautionary measure, the schools, colleges and universities were closed for two weeks starting from 16 March 2020. A forced closure (JANTA CURFEW) was observed in the country on 22 March 2020. Soon after a three week lockdown was imposed in the country on 25 March 2020 and all educational institutions were closed indefinitely. The study in universities and colleges was a great concern during and after the lockdown period. The university grants commission and Government of India have issued directions to universities and colleges to find the way during this crisis. Almost all educational institutes switched to online classes without having any prior experience and proper facilities. The main objective was to keep students busy through online interaction. It was difficult to find one acceptable digital platform for this interaction. All available digital platforms were used as per the availability and knowledge of the faculty and students. It was a challenge for all faculty members and students to practice online teaching-learning during the pandemic period. Despite of the best possible efforts by universities and colleges, there are lots of complaints from students. About 30% students complained of not having the internet access and the device (computer/smart phone) for online study. It is a serious issue and looks unfair on the part of those students. The beginning of online classes was unplanned and exposed our shortcomings in the delivery of higher education. We have many official/unofficial online programmes (MOOCs, SWAYAM, NPTEL, etc.) but not accessible by a large number of students.

The word "online education" looks very simple, but there are major differences between the modes of online teaching-learning in various institutions all over the world.

University of Cambridge has already decided to conduct all lectures online only until summer of 2021 [7] but many universities are still struggling to create the awareness of online mode for continuing the education during this crisis. The education provided so far was not ideal an online education. It was like crisis management and we certainly need a detailed plan to continue with a proper delivery in future.

The planning and implementation of online teaching is very different from formal education. It takes weeks to design an effective online lesson. A systematic development plan is required for an effective online learning design. In addition, a different ecosystem and "student support system" need to be established for online teaching-learning. Since it is not possible and feasible to switch entire education online, the face to face education may be combined with online courses. While many different techniques can be applied in face to face education, online education design also has many dimensions [8]. For example, lessons can be entirely or partially online; academic staff can attend all or some of the courses online. Good online lessons can be planned accordingly. While shifting towards the online education, the curriculum needs to be modified as per the demand of the time. The student centric and active learning-triggering applications are required to be implemented. The dynamics and pedagogy of online education are entirely different from classroom education and should be planned accordingly. Good quality technological support is required to attract students for online learning. The faculty members need to plan the lesson with passion. They also need training and technical support to be able to utilized online interactive platforms such as Google Classroom, Skype, Meets, Zoom, etc for making the online teaching effective and interesting. Power-Point presentation for teaching, seminar, etc. should be encouraged to make students more technical friendly. The external education sources like audio, video, interactive visual aids, article summary, etc. may also be used to make the teaching attractive. The purpose of online education should not be content transfer only. Content transfer, should be done with the materials sent before taking the lesson online. The practice of question-answer should be encouraged with the target to attract large number learners. The online education cannot be taken for granted for 100% courses, but partial online teaching may be implemented in every program. The uses of various digital platforms have created many opportunities for technological innovation and digital learning in the institutions.

In the present situation, the major obstacle in the implementation of online teaching is the resistance in redesigning the course by the existing teaching staff. This is mainly because most of them are not acquainted with technology and they found it very difficult to change from existing practice. They may have given the time after training to design online courses. With training and sufficient time to adopt the technology, they may find it easy to interact with students to provide ideal online education. Everyone has to come forward for progress of higher education in the country. Education will not be same in the future and all institutions and individuals need to be prepared for the change. Instead of dividing the education in formal, distant and online, it should be mixed or blended.

Universities need to strengthen the online education infrastructures and improve the teaching capacity of faculty members because they are the strength of university in imparting the knowledge to stakeholders. A mixed teaching-learning model will be more beneficial both for faculty members and students. It is also important at the part of institutions to raise the awareness regarding online education. They need to generate the technological facility and recruit the competent staff to strengthen the online education. This may also be taken as an opportunity to train existing teaching staff to adopt the advanced technology and develop technologically enabled institutions for strengthening the digital learning in the future.

The next challenge was to conduct examinations. In view of the emerging COVID-19 pandemic situation it was difficult to conduct the examinations in the month of May/June, 2020. Another challenge to conduct an online examination was that all students were not connected to online mode. A large number of universities across the world have conducted examinations by giving various options such as online, offline, blended or other alternative forms of examinations. In view of this, the University Grant Commission mandated conduct of final year examination of undergraduate and postgraduate students across the universities and colleges in India.

The voluntary or compulsory social distance restrictions are in practice globally. It will help to restrict the infected individuals not to exceed the capacity of health system in the country and will also extend the duration of the pandemic. Lots of works have been reported on forecasting the pandemic period, but the failures became more prominent [9]. Since the pandemic may last longer, it is necessary to wait till the situation return to normal. The face to face teaching-learning seems to be impossible till the end of 2020.

Universities in United States and Canada have also not assured 100% face to face teaching-learning in 2020 [10, 11]. The face to face teaching-learning, extracurricular activities, campus life, etc. will be possible only after the pandemic is over. Till then it was important to conduct the remaining examination and evaluation processes. Some of the examinations were conducted successfully by following all norms of social distancing and health advisory to protect students and other staff members from the pandemic.

Since face to face teaching-learning is presently still stand, it is high time to strengthen our online facilities, so that we can reach each and every student. In case it is delayed further the admission process for next semester may also be delayed accordingly. This is important because the teaching will be possible through online mode only till the end of 2020. If universities are not able to provide online facilities to students, admission process should be initiated accordingly.

Many universities have frozen exchange programme, internship, training and project work and suggested an alternative in the form of online activities. This is a force requirement under pandemic outbreak, but cannot be continued in some courses. The universities may think to temporarily discontinue the courses having a low number of students and reduce the number of elective courses. Alternatively the curriculum may be divided into online and offline modes to restrict the entry of students in the campus at large scale. It will also reduce the burden of both the students and faculty members. COVID-19 has given us a challenge, which may be converted into opportunity by suitable planning in higher education. It is expected that in future there will be a series of changes in higher education.

3. Conclusions

The outbreak of COVID-19 has affected all sectors and many of them have to define new norms for progress in the future. The higher education sector is one of the worst affected sectors. Let us take it as an opportunity and consider the new beginning like the evolution of the education system. The decisions taken during this pandemic period will shape the future of higher education in the country. If we take the right steps, the education will become more productive and the country will progress. If somehow we will not able to take appropriate decision, the quality will be degraded. It is therefore up to the decision makers to shape the country by taking appropriate decisions under this difficult time. The quality online education will become a part of life in coming days, and authorities, as well as faculty

members have an important task on hand. We all have to work collectively to recover the loss due to pandemic. This pandemic offers us an opportunity to upgrade higher education system worldwide and the universities/countries that adopt quickly will be the winners.

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Author's Profile

Rakesh C Ramola is professor of Physics at H.N.B. Garhwal University Campus, Tehri Garhwal. He received his Ph.D. degree in 1989 from Guru Nanak Dev University, Amritsar. After his doctoral degree, he has worked as post-doctoral fellow at University of Salzburg, Austria. He has also worked at National Institute of Radiological Science, Japan as Japan Society of Promotion of Science invitation fellow. He has also worked as Campus Director for six years. 17 students have awarded Ph.D. under his supervision. He has completed many research projects from various funding agencies. He published about 200 scientific papers in the journals of international repute and presented number of scientific findings in various national and international conferences. He is editor and reviewer of number of international journals. He delivered a number of talks at various organizations and also organized a number of conferences/symposia/workshops.

