IMPACT OF COVID-19 ON TEACHING AND LEARNING

Sulochana R. Rathod

Department of Botany,

Government College of Arts and Science, Aurangabad

Corresponding author E-mail: rathod.sulochana@gmail.com

Abstract:

The COVID-19 pandemic has caused the greatest disruption to education systems in human history, affecting billions of learners in more than 200 countries. The closure of schools, institutions and other places of learning affect more than 94% of the global student population. This has brought about far-reaching changes in all areas of our lives. Social distancing and restrictive movement guidelines have significantly disrupted traditional educational practices. Many universities and colleges worldwide have suspended face-to-face teaching and switched to online teaching due to the novel coronavirus pandemic. The current cross-sectional study was conducted to analyses the impact of the COVID-19 lockdown on school performance. Reopening schools after restrictions are eased is another challenge as many new Standard Operating Procedures are introduced. Although online education provides an opportunity for self-study, the main challenge faced by online education in basic sciences is delivering practical instruction. Therefore, since most of the subjects are practical, it is not easy to learn it online. Online education could be improved by being more interactive, showing medical procedures in real situations, providing concise information and providing 3D virtual tools to mimic the real situation. Within a short period of time following the COVID-19 pandemic, many researchers have shared their work on teaching and learning in a variety of ways. Several schools, colleges and universities have stopped face-to-face classes. There is a fear of losing the academic year of 2020 or even more in the coming future. The need of the hour is to innovate and implement alternative education systems and assessment strategies. The COVID-19 pandemic has presented us with an opportunity to pave the way for the adoption of digital learning. This article aims to provide a comprehensive report on the impact of the COVID-19 pandemic on online teaching and learning of various papers and show the way forward.

Introduction:

Coronavirus disease 2019 (COVID-19) was first identified as pneumonia of unknown cause in December 2019 in Wuhan City, Hubei Province, China (Zhu *et al.,* 2020). Later, the International Committee on the Taxonomy of Viruses (ICTV) identified the causative agent of COVID-19 as a novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARSCoV2) (ICTV). The outbreak of COVID-19 is spreading rapidly not only in China but also worldwide, which is why the World Health Organization (WHO) declared it a pandemic on March 12, 2020 (WHO Announces COVID-19 Outbreak a Pandemic. 2020). Several government measures have been taken to counter the risk of disease spread. These measures include travel restrictions, mandatory quarantines for travellers, social distancing, bans on public gatherings, the closure of schools and universities, business closures, self-isolation, asking people to work from home, lockdowns and curfews (Bedford *et al.,* 2020).

Authorities in several countries around the world have declared either lockdowns or curfews as a measure to curb the rapid spread of viral infections. The global outbreak of the COVID-19 pandemic has spread worldwide, affecting almost all countries and territories. Public care strategies included washing hands, wearing face masks, physical distancing and avoiding mass gatherings and gatherings. Lockdown and homestay strategies have been introduced as necessary measures to flatten the curve and control transmission of the disease (Sintema, 2020). These measures are having a negative impact on the economy, education, health and tourism worldwide. The COVID-19 pandemic has affected all levels of the education system. Many universities around the world have either postponed or cancelled all campus activities to minimize gatherings and thus reduce virus transmission. However, these actions lead to higher economic, medical and social impacts on both undergraduate and postgraduate communities (Nicola *et al.,* 2020). Due to the cessation of face-to-face teaching at many colleges and universities, a switch to online teaching for bachelor's and master's students is taking effect. This form of learning offers an alternative way of minimizing contact either between the students themselves or between the students and lecturers. However, many students do not have access to online teaching due to the lack of either the means or the tools due to the economic and digital divide. The research highlights certain shortcomings such as the weakness of online teaching infrastructure, the limited exposure of teachers to online teaching, the information gap, an environment not conducive to home learning, equal opportunity and academic excellence in relation to higher education. This article assesses the impact of the COVID-19 pandemic on teaching and learning processes around the world. The challenges and opportunities of online

and further education during the COVID-19 pandemic are summarized and further action is suggested.

Challenges in Teaching and Learning

With the availability of a variety of platforms and online educational tools, users, both educators and learners, often experience hiccups when using or relating to these tools. Some of the challenges identified and highlighted by many researchers are summarized as follows: Commonly identified challenges in e-learning are accessibility, affordability, flexibility, learning pedagogy, lifelong learning and education policy (Murgatroyd, 2020). Many countries face significant problems with reliable internet connection and access to digital devices. While economically disadvantaged children in many developing countries cannot afford online learning devices, online education carries the risk of exposing the learner to prolonged screen time. Therefore, it has become imperative for students to engage in offline activities and self-exploratory learning. Lack of parental guidance, particularly for young learners, is another challenge as both parents' work. There are practical issues surrounding physical workplaces that are conducive to various learning methods. The naturally motivated learners are relatively unbiased in their learning, needing a minimum of supervision and guidance, while the vulnerable group, made up of slow learners, struggles. Some academically competent learners from economically disadvantaged backgrounds cannot access or afford online learning. The level of students' academic performance is likely to fall in the classes held for both the end-of-year exam and the internal exam, as contact hours for learners are reduced and teachers are not advised on learning/understanding difficulties (Sintema, 2020).

Student assessments are conducted online, with much trial and error, uncertainty and confusion among teachers, students and parents. The approach to conducting online exams varies based on the convenience and expertise of educators and learner compatibility. The lockdown of schools and colleges has affected internal assessments and examinations for key public qualifications such as the general secondary school leaving certificate. Depending on the duration of the lockdown, a postponement or cancellation of the entire examination is conceivable. Due to the COVID-19 outbreak and the nationwide lockdown, various state board exams, recruitment exams, university level exams and entrance exams have been postponed across India. Various entrance exams have also been postponed/ rescheduled.

The education system at schools, colleges and universities across the country is severely impacted due to the ongoing situation. It's also possible that some students' careers could benefit from the disruptions. A study conducted in France shows that the abandonment of the normal
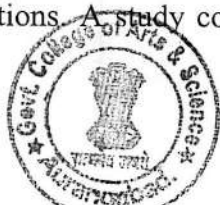
examination procedure in France in 1968 after the student riots resulted in positive long-term labour market consequences for the affected cohort (Maurine and McNally, 2008). Schooling also increases social skills and awareness, apart from the fact that it is fun for children. There are economic, social and psychological impacts on students' lives while they are absent from the normal school schedule. Many of these students have now taken online classes and are spending extra time on virtual platforms, which have children vulnerable to online -Exploited.Increased and unstructured time spent learning online has left children exposed to potentially harmful and violent content, as well as at greater risk of cyberbullying.School closures and strict containment measures mean more families are turning to technology and digital solutions. While regulations are in place to keep children engaged in learning, entertained, and connected to the outside world, not all children have the knowledge, skills, and resources necessary to stay safe online.

Students support parents in agricultural activities such as farming, animal husbandry, and housework. Some students even asked for the exam time to be moved to the afternoon as they had to work in the fields in the morning hours. Some students expressed that they had to take care of their sick parents/grandparents/family members and take them to hospitals. In the evenings, when they return home, they find it difficult to keep up with class. Parents whose children are in lower grades think it would be better to have their children repeat the next school year. The majority of students do not have access to smartphones or televisions at home, in addition to a poor internet connection. Due to the closure of shops and offices, there is little or no income for the large population. The data package (cost) is comparatively high compared to the average income and constant internet access is a costly business for farmers. Online classroom instruction (video) is recommended by most; however, some students (economically disadvantaged) have expressed that online classroom teaching consumes more data packets. Teachers are in a dilemma of who to listen to and what tools to use. Some think pre-recorded videos could help, as this would limit interactions. It is difficult to design an appropriate system that meets the learning needs and convenience of all students.

Opportunities for Teaching and Learning

Though there have been overwhelming challenges for educators, schools, institutes, and government regarding online education from a different angle, the COVID-19 pandemic presents multiple opportunities for the unprepared and distant plans to implement an e-learning system. It has forged a stronger bond between teachers and parents than ever before. Homeschooling requires parents to support students' learning academically and economically. Children with disabilities need additional and special support during this ongoing emergency. The use of online platforms such as Google Classroom, Zoom, virtual learning environments and social media as

well as various group forums such as Telegram, Messenger, WhatsApp and WeChat are explored and tested for teaching and learning for the first time in order to further their education. This can be further explored even after face-to-face classes resume, and these platforms can provide additional resources and coaching for learners.

Teachers are committed to developing creative initiatives that help push the boundaries of virtual teaching. Teachers are actively collaborating locally to improve online teaching practices. There are unparalleled opportunities for collaboration, creative solutions, and a willingness to learn from others and try new tools, as educators, parents, and students share similar experiences (Doucet *et al.,* 2020). Many educational organizations offer their tools and solutions for free to support teaching and learning in a more interactive and engaging environment. Online learning offers the opportunity to teach and learn in innovative ways, as opposed to the teaching and learning experiences in the regular classroom.

Discussion:

The novel COVID-19 disease, identified in Wuhan city, China in December 2019, is spreading rapidly not only in China but worldwide. As a result, governments around the world have either temporarily closed educational institution that impact teaching and learning or implemented local closures. The current study showed that the COVID-19 pandemic lockdown impacted the academic performance of most schools, colleges and institutes. Online education helps students stay connected with the opportunity for self-study. However, the biggest challenge for online education in basic sciences is to provide practical instruction. Since most of the subjects are practical, it is not easy to learn it online. The students think that it is difficult to fulfil the practical knowledge only with the online education system. Online education can be improved by making it more interactive, providing brief information, and providing 3D virtual tools to mimic the real situation.

To improve online education in general it is recommended to provide platforms for online learning, provide students with electronic devices to access the internet, improve the internet speed, provide cheaper or even free internet packages during the pandemic, provide professional training for lecturers, and enhance the interaction between students and teachers. Additionally, to improve online education in science it is recommended to provide virtual resources to mimic the laboratory work, teach practical lessons by interactive tools, such as videos and 3D animation, and provide accessible e-books and instructional videos for practical lessons.