



Advantages and Difficulties of Virtual Learning amid India's COVID-19 Shutdown

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ABSTRACT:

Millions of people were arrested in various ways as a result of the novel corona virus COVID-19 epidemic, which caused a global "Lockdown." Physical closure of all educational institutions occurred in India in March 2020 as a result of a national lockdown. Since online learning has been a part of traditional academics, both professors and students have seen a change in lifestyle. Determine the advantages and difficulties of virtual learning in the context of India's COVID-19 shutdown is the main goal of this study. The efforts undertaken by the Indian government to include online education are described in this article. It also covers how different distribution methods for online education are integrated into Indian classrooms and how these tools can benefit both teachers and students. Additionally, the purpose of this paper is to review the studies that highlight the advantages and drawbacks of online learning during the COVID-19 shutdown. This is a secondary research piece that takes into account 21 investigations that were carried out in the last two years (2020–2021) that looked at the epidemic and its worrying effects on the Indian educational system. Electronic databases like Springer, Sage Publications, ResearchGate, Taylor & Francis, Elsevier, ejournal.upi.edu, and the Wiley online library were the sources of the peer-reviewed studies that were gathered. Subsequent research endeavors may examine approaches to address these obstacles in virtual learning environments.

Introduction:

The COVID-19 pandemic presented an uncommon scenario for the world. A pandemic is described as "an outbreak of a disease that occurs over a wide geographic area and affects an exceptionally high proportion of the population" by the Merriam-Webster Online Dictionary. The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the source of the current pandemic. The new coronavirus was initially discovered in December 2019 during an epidemic in the Chinese city of Wuhan. After that, it spread over the whole world. The World Health Organization declared a Public Health Emergency of International Concern on January 30, 2020, and on March 11, 2020, it was upgraded to a pandemic. Around the world, the pandemic caused dramatic changes to regular school operations and forced school closures, which had an influence on every part of life, including health, the economy, culture, education, politics, and the environment. By forcing all institutions to switch to an



online platform, it prompted the physical closure of schools in India. There were significant social and economic repercussions for families, instructors, and children when schools were closed.

In many parts of the world, technology-based education, particularly online education, has emerged as the most suitable substitute to maintain the operation of educational institutions throughout the pandemic (Paudel, 2020). "Learning experiences in synchronous or asynchronous environments using different devices (e.g., mobile phones, laptops, etc.) with internet access" is the definition of online learning. Students can learn and engage with teachers and other students in these settings from anywhere (independently) (Singh & Thurman, 2019). It is now a useful tool for keeping educational programs operating smoothly and averting the potential loss of class time brought on by lockdowns.

Since colleges and universities had to close for an extended length of time, planners and policymakers, including the government, had to devise and execute alternate in-person teaching and learning methods to maintain the operation of educational programs. Because of this, the Indian government introduced the use of online learning to the nation's educational system.

A new education policy was drafted, according to Mishra, Gupta, and Shree (2020). In the context of this pandemic, it is thought to be an important step. "SWAYAM: Study Webs of Active-Learning for Young Aspiring Minds" is a project that the Indian government started. In India, it is seen as one of the most significant efforts during the pandemic. It is an online learning platform called Massive Open Online Courses (MOOC).

- **Swayam Prabha:** The objective of Swayam Prabha is to supplement classroom teaching with additional learning resources. The content is developed by experts from renowned institutions such as the Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), National Institutes of Technology (NITs), and other prestigious universities and colleges. Students can access the educational content broadcasted on Swayam Prabha by using a set-top box connected to their television sets. The initiative aims to bridge the digital divide and provide equal learning opportunities to students from all backgrounds. It also supports the government's vision of promoting digital education and enhancing the reach of quality education in the country. Swayam Prabha is part of the larger Swayam initiative, which is an online platform offering Massive Open Online Courses (MOOCs) to learners across India. Together, these initiatives strive to make education more accessible, flexible, and inclusive for students at all levels. 32 DTH channels are devoted to providing top-notch educational programming for schooling (9–12 levels) and higher education throughout the week.

- **ARPIT:** Annual Refresher Programme in Teaching is referred to as ARPIT. The Government of India's Ministry of Education started this program to improve the professional growth of faculty members in higher education throughout the nation. ARPIT's goal is to give faculty members the chance to stay current with the latest developments in their fields while also learning about innovative teaching strategies and technological advancements. The program's objectives are to advance good pedagogical practices and raise the standard of instruction in postsecondary educational institutions.



- **e-PG Pathshala:** At the postgraduate level, an e-PG Pathshala provides a vast array of e-books, e-lectures, video lectures, and other digital resources spanning a variety of fields and subjects. Content creators and curators from respected Indian institutions are subject matter experts. The platform includes courses in engineering, technology, business, social sciences, and humanities, among other fields. The main goal of e-PG Pathshala is to give postgraduate students extra study materials and resources in addition to classroom instruction. It seeks to improve education standards, encourage independent learning, and make learning materials more accessible to people who live in rural regions or do not have access to physical libraries or other resources.
- **National Digital Library:** The Indian government's Ministry of Education launched the National Digital Library (NDL) as a way to give users single-window access to a sizable library of digital learning materials. It acts as a digital library for educational resources, such as theses, articles, films, audio lectures, books, and other written works. From elementary school to higher education, the NDL is intended to meet the educational needs of researchers, teachers, students, and learners at every level. It provides instruction in a broad range of fields and subjects, including engineering, technology, management, social sciences, humanities, and more. **e-ShodhSindhu:** It merges UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The e-ShodhSindhu will continue to provide current as well as archival access to more than 15,000 core and peer-reviewed journals and several bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions.
- **e-Vidwan:** An online directory of Indian academic specialists covering a range of subjects is called e-Vidwan. The Government of India's Ministry of Education began the effort with the goal of compiling an extensive and user-friendly database of subject-matter experts. e-Vidwan is a platform for finding and getting in touch with academic specialists who may offer their knowledge and experience in a variety of ways. Researchers, scholars, scientists, academicians, and other professionals who have made noteworthy contributions to their respective professions are profiled in the database.
- **CEC-UGC Youtube Channel:** Videos and lectures covering a variety of topics and disciplines are hosted and disseminated on the CEC-UGC YouTube channel. Experts from a range of Indian universities, colleges, and educational organizations provide programming for the channel. The channel includes a wide range of academic subjects, such as languages, arts, commerce, humanities, and social sciences. It offers a selection of excellent instructional films that support classroom instruction, improve student experiences, and meet the needs of educators, researchers, and lifelong learners.
- **Diksha:** The Ministry of Education, Government of India, launched the DIKSHA (Digital Infrastructure for Knowledge Sharing) program to give educators, students, and teachers access to high-quality educational resources via a digital platform. It is an online resource that offers an extensive library of digital learning materials and information for a range of subjects and grade levels. A vast collection of instructional materials, such as interactive modules, worksheets, lesson plans, films, and assessments, are available from DIKSHA. These resources serve primary through upper secondary pupils and are in line with the curricula that various Indian school bodies have mandated.
The UGC, India's highest education regulatory authority, has taken the current state of



education seriously and has taken proactive steps to break the impasse over finishing courses and exams within current semesters. Board exams for classes X and XII, held by the center and the states, were canceled recently. An alternative marking scheme for result evaluation and declaration was implemented by the government. These actions were all made as a result of the horrific pandemic conditions. Managing teaching-learning scenarios in the post-COVID-19 educational setting would be challenging.

Combining different delivery methods into India's online education system

To fulfill the diverse needs of students and offer a comprehensive educational experience, India's online education system needs to incorporate multiple modes of delivery. Lockdown was implemented nationwide in March 2020. With the advent of the online education system, India saw the start of an academic revolution. The unified vision of the education system emerged in the face of COVID-19, as educators and learners alike were equally motivated to modify online teaching-learning platforms to satisfy their learning needs during the epidemic. Everyone is familiar with social media apps like Facebook, Instagram, WhatsApp, and Twitter, so it's easy for them to switch between using online learning platforms like ZOOM, Cisco WebEx, Google Meet, and Microsoft Teams. A number of beneficial educational programs were available, including Office 365 and Google Classroom. Downloadable video conferencing apps are inexpensive and simple to use (FutureLearn, 2020).

Advantages of Online Education during COVID-19 Pandemic in India

During the COVID-19 pandemic in India, online schooling has been quite beneficial and has provided a number of advantages. During the pandemic, the following are some significant benefits of online learning:

- **Learning Continuity:** During times of lockdowns and school closures, students can now continue their education remotely thanks to online learning. It has given rise to a way to guarantee that education can occur in spite of the physical limitations brought about by the pandemic.
- **Accessible and Inclusive:** Students in remote locations, people with impairments, and those who encounter obstacles to traditional classroom learning may all benefit from online education's potential to reach a larger audience. By giving students from different backgrounds equal access to education, it encourages inclusion.
- **Diversification of Learning Resources:** Online education platforms enable users to access a wide range of learning resources, such as interactive modules, e-books, movies, and quizzes. This extensive range of resources enhances educational opportunities and supports different learning styles.
- **Interactive & Engaging:** A few examples of interactive components that are commonly seen on online learning platforms are discussion boards, live virtual classes, and multimedia content. These elements support cooperative learning settings and proactive student involvement.
- **Agility and Self-Paced Study:** Online learning allows students to study whenever and at whatever speed they choose. Enabling students to see recorded lectures, access learning resources, and complete assignments at their own pace can all help meet individual learning requirements and schedules.



- **Personalized Learning:** Online education platforms have the potential to offer customized learning experiences through the provision of adaptive learning tools and technologies. These technologies can assess how well students are developing, provide tailored recommendations, and adjust course content to meet particular needs.
- **Professional Development for Teachers:** Thanks to online learning, teachers today have additional opportunities for professional development. They can use webinars, workshops, and online training programs to hone their pedagogical skills and get used to teaching online.
- **Safety and Health:** Since there is no requirement for in-person meetings, there is a lower chance of virus transmission when learning occurs online. In times of public health emergencies, it guarantees the wellbeing and safety of educators, instructors, and other staff members.

While there have been many benefits to online learning throughout the epidemic, there are still issues that need to be addressed, including device accessibility, internet connectivity, and the requirement for teacher preparation in order to use online learning platforms efficiently. However, its advantages have shown how online learning may support inclusive education in India and work in tandem with conventional teaching methods.

Challenges of Online education during COVID-19 pandemic in India

During India's COVID-19 pandemic, online learning has been extremely beneficial, but it has also presented several difficulties. The following are some major difficulties with online learning during the pandemic:

- **Connectivity and Access:** A significant issue is the digital divide, as many students do not have access to dependable internet connectivity or appropriate gadgets for distance learning. Inequalities in educational possibilities have resulted from this discrepancy in access, particularly for kids in rural and economically poor areas.
- **Technology Infrastructure:** Both students and teachers have difficulties due to inadequate technology infrastructure, which includes outdated hardware and restricted bandwidth. Connectivity problems, sluggish internet connections, and trouble accessing online learning platforms and resources can all be caused by inadequate infrastructure.
- **The absence of Digital Skills:** It's possible that a large number of educators and students lack prior knowledge of or familiarity with online learning resources and platforms. Due to the abrupt shift to online learning, there is a learning curve and people must become digitally literate in order to use and navigate online learning materials.
- **Involvement and Motivation:** Students' motivation and involvement in online learning may face difficulties. Less in-person interactions and a move toward self-directed learning may result in lower student engagement as well as less opportunities for teamwork and active participation.
- **Teacher Assistance and Training:** Without sufficient assistance or training, many educators have had to swiftly adjust to online teaching techniques. They need support and opportunities for professional development in order to use online



resources efficiently, create interesting online courses, and cater to the various demands of students.

- **The effects on the environment and socioeconomics:** During the COVID-19 pandemic, it was seen that children from poor socioeconomic origins and rural areas of India were experiencing scholastic difficulties. The study conducted by Alvi and Gupta (2020) centered on the nutritional stability of kids who rely on school lunches and additional nutrition initiatives. They discovered that girls and kids from caste and ethnic minority groups, who already face significant disadvantages, are more affected. According to Kapasia et al. (2020), students from underserved communities and rural locations mostly experience significant obstacles when it comes to their studies during this epidemic.
- **Experiential and Lab-Based Learning:** Practical and Lab-Based Learning is necessary for some fields, including science, engineering, and the arts. The shift to online learning could reduce students' chances to participate in hands-on experimentation, fieldwork, and creative endeavors.
- **Mental health issues:** People were experiencing depression symptoms, stress, worry, bereavement, and sadness as a result of the pandemic and isolation. Students also had to deal with the pressure and stress of academics. According to Biswas & Biswas (2021), the epidemic causes worry in nearly every pupil. According to Dangi & George (2020), the majority of the pupils experienced extreme anxiety. A few of the pupils exhibited mild anxiety. According to Kapasia et al. (2020), anxiety and depression were issues that students dealt with. According to Chandra (2020), there are notable distinctions between male and female students' fears of failing their classes and their homes and online settings. According to Agarwal et al. (2021), e-learning can cause self-isolation and a decline in academic achievement, which can have an adverse effect on mental health.
- **Inadequate infrastructure and connectivity:** According to Muthuprasad et al. (2021), problems with broadband access in rural areas pose a difficulty for educators and students. Numerous courses in an agricultural education system are practical in nature. According to Kapasia et al. (2020), students had issues because of inadequate internet access at home. During this pandemic, students from underprivileged and distant locations mostly confront significant obstacles in their academic pursuits. According to Naik et al. (2021), in-person meetings are frequently preferable than virtual ones. Lack of infrastructure, technical tools, internet connectivity, and facilities for holding online sessions were among the drawbacks.
- **Lack of awareness and training:** Teachers and students faced difficulties during online teaching sessions due to a lack of awareness about online applications and the technology involved. Arora & Srinivasan (2020) identified issues with the network, lack of training, and lack of awareness as the challenges faced by teachers. Drawbacks included less attendance, lack of personal touch, and lack of interaction due to connectivity issues.
- **Difficulty interacting with others:** Arora & Srinivasan (2020) noted problems with low connectedness that lead to a lack of interaction. According to Nambiar's (2020) research, timely and high-quality interactions between students and peers



as well as professors are critical components of online course satisfaction for both teachers and students.

- **Lack of knowledge and training:** Due to a lack of knowledge about online programs and the technology involved, teachers and students had challenges during online teaching sessions. Arora & Srinivasan (2020) listed the difficulties instructors experience as being related to network problems, a lack of awareness, and inadequate training. Less attendance, a lack of intimacy, and a lack of contact because of connectivity problems were among the drawbacks.
- **Acceptance and readiness:** A lot of teachers and students preferred traditional methods of teaching. Thomas et Al. (2020) found that students do not prefer online classes. Fakhrunisa & Prabawanto (2020) identified challenges as teacher readiness in running applications to carry out online learning, online learning facilities for students, limitations in achieving knowledge that demands mathematical thinking, and constraints in giving feedback to students. Naik et. Al. (2021) confirmed that the traditional chalk and talk methodology is often better than online sessions. Shenoy, Mahendra & Vijay (2020) found that emotions and perceptions of faculty towards the usage of technology and experience are different.
- **Acceptance and preparedness:** Many educators and learners favored conventional teaching approaches. According to research by Thomas et al. (2020), pupils do not favor online learning. Challenges were noted by Fakhrunisa & Prabawanto (2020) as teacher preparation for using online learning apps, student access to online learning resources, attainment of information requiring mathematical reasoning, and limits in providing feedback to students. According to Naik et al. (2021), in-person meetings are frequently preferable than virtual ones. According to Shenoy, Mahendra, and Vijay (2020), faculty members have differing feelings and perspectives on using technology and having various experiences.

CONCLUSION

- Online education has quickly gained traction in India as a result of the major disruptions caused by the COVID-19 pandemic to the country's traditional educational structure. Even if the shift to online learning has not been without its difficulties, it has also served as evidence of the advantages and necessity of online learning in these extraordinary times.
- For students, online learning has been a lifesaver, guaranteeing that their education would continue even in situations where traditional classrooms were closed. Students can now pursue their education from a distance, interacting with teachers, completing assignments, and engaging with course material all from the comfort of their own homes.
- The adaptability of online learning has proven especially beneficial, enabling students to study at their own speed and access course materials from any location with an internet connection. Students now have the ability to customize their educational experiences and take charge of their learning process.
- Although the pandemic was the main factor in the rise in demand for online



education, its importance goes beyond the present issue. It provides a route for changing education and gives chances for creativity, teamwork, and lifetime learning. The greatest features of both traditional and online learning can be combined in a blended learning strategy by integrating online education.

- It is imperative that stakeholders, educational institutions, and legislators tackle the difficulties posed by online learning in the future. In order to close the digital gap, guarantee fair access to technology and connection, support and train educators, and create inclusive and interesting learning environments,
- Additionally, the potential of online education to solve challenges of diversity and accessibility has been demonstrated. It has benefited students who live in rural areas, have disabilities, or face financial obstacles to an education. The utilisation of online education has expanded access to high-quality educational resources and opportunities by eliminating geographical barriers and mitigating cost constraints.

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