

Post effects of COVID – 19 on Education Sector

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Abstract

Education is a crucial aspect of every individual's life, providing them with techniques, skills, information, and knowledge. It plays a significant role in enhancing safety against crime, promoting women empowerment, removing poverty, preventing war and terrorism, and enforcing job opportunities, true potential, improvisation of sectors, standard of living, wealth, welfare, balanced growth, economic stability, grading, and more in society and the country. The COVID-19 pandemic has affected many sectors, including education, which is a critical element of a country's economic growth. As a result, online platforms have become the primary mode of learning, from kindergarten to university education. Despite the pandemic's economic impact, it transformed the traditional offline mode of learning into an interactive online session. The implementation of online education was challenging in the initial stages, but advanced resources and techniques facilitated E-learning through assignments, seminars, webinars, and workshops. During the pandemic, many online portals and techno-friendly applications helped engage students while traditional educational institutions faced sudden closures. The swift transition to online teaching facilitated E-learning and brought learners, tutors, experts, practitioners, and other interest groups to one place, promoting knowledge sharing through various online platforms such as e-ShodhSindhu, e-Gyankosh, SWAYAM, SAKSHAT, YouTube, UG/PG MOOCs, National Digital Library, Vidwan, and more. E-learning can be considered as a network-enabled transfer of skills and knowledge, delivering education to a large number of recipients at the same or different times. Digital technology has prioritized utilizing e-resources to adapt to E-learning, which is a crucial need of the hour during the COVID-19 pandemic. Therefore, quick information is essential for an individual's better growth, particularly in today's era of rising competition and a growing world. This paper aims to examine the effects of the COVID-19 pandemic on the education sector.

Keywords: Education, COVID – 19, E - learning, Electronic Resources, learning system and Online Education.

Introduction:-

In recent history, the world witnessed a significant turning point in late 2019 and early 2020. A small virus caused a global pandemic that shook the entire world. COVID-19 has affected a vast number of students across different states, classes, castes, genders, and regions. As of March 2020, the epidemic had spread to over 185 countries, leading to the closure of more than 90 percent of all schools, colleges, and universities worldwide, affecting close to 1.38 billion students. In India, 247 million primary and secondary school students were out of school due to COVID-19, which has severely disrupted access to education. UNESCO recommended the use of distance learning programs and open educational applications and platforms to help schools and teachers reach learners remotely and limit the disruption of education. In response, educational institutions shifted toward blended learning and encouraged both teachers and students to become technologically savvy. This paper aims to focus on the impact of COVID-19 on the education sector.

Objectives

- To explore the rise of online education in India
- To highlight the initiatives taken by the Government state-wise
- To assess the issues and challenges in online education during COVID- 19.

Methodology

The data and details used in this study were obtained from a number of reliable websites, journals, publications, and articles that focused on the effects of COVID-19.

I. Increase in online learning in India.

The outbreak of the COVID-19 pandemic in the third week of March 2020 led to a total lockdown that lasted for around seven months. The lockdown affected various sectors of the economy, including the primary, secondary, informal, and service sectors. Education was one of the sectors that were highly impacted by the pandemic, affecting individuals of all age groups from pre-school children to adolescents in schools, colleges, and

universities. While before the pandemic, they attended their classes in offline mode, during the pandemic, they had to resort to online mode for their education.

The method of "Online Delivery of Information and Learning" was adopted not only in one nation but globally. India adopted national and digital resources to pursue learning during the pandemic. The Ministry of Education (MHRD), University Grants Commission (UGC), and Government of India focused strongly on multiple schemes for the usage of ICT (Information and Communications Technology) in the country. The main aim of using ICT during COVID-19 was to provide quality education to young minds. Online learning motivated the younger generation and gave them hope for building a strong foundation for their future in an advanced manner.

During the pandemic, many online portals were utilized due to the sudden closure of educational institutions. Students were provided with techno-friendly applications to keep them engaged. The swift transition to online teaching opened gates to many e-resources.

E-learning Platforms

- E-ShodhSindhu aims to provide access to electronic educational resources for higher education students in universities and colleges.
- E-PG Pathsala is an initiative of the MHRD that facilitates online and offline learning for postgraduate students.
- SWAYAM is a free online portal for lifelong learning that provides numerous courses for both teachers and students.
- E-GyanKosh is a national digital repository that aims to preserve, store, index, and distribute digital learning resources.
- GyanDhara is an internet audio counseling service offered by the Indira Gandhi National Open University (IGNOU)

- The National Digital Library of India (NDLI) is a government project that collects and collates metadata from national and international digital libraries to provide full-text access to resources.
- E-Yantra is a digital platform that encourages young Indians to develop utility-based robotic applications for industrial, agricultural, health, and environmental sectors.
- FOSSEE is a project established to promote free and open-source software tools in academia and research.
- Shodhganga is a repository of theses maintained by the Infflibnet Electronic Portal.
- VIDWAN is a database and network of research scholars in India that provides updates on publication resources.
- SAKSHAT is a free portal for teachers and students that facilitates lifelong learning.
- NEAT makes use of artificial intelligence to make the learning process more effective and efficient for learners.
- YouTube is an online portal that is freely available and has become increasingly popular for educational purposes during the pandemic. Teachers have opened channels to upload educational videos and content.
- DIKSHA is a national platform that provides e-content linked to curriculums, such as Energized Text Books (ETBs), to improve school education for grades 1-12.
- LMS (Learning Management Solution) is a learning platform that hosts online courses and provides the opportunity to integrate social media tools for education.

Occasion during lockdown

Assignments: Teachers set daily assignment exercises for pupils in order to keep them engaged and occupy them during the monotonous hours spent at home alone. Additionally, it made it easier for the students to stay current on their coursework. Every student experienced a greater shift as a result of the daily assignments.

Seminars :-Seminars, on the other hand, similarly inspired and sharpened students' minds. Even class seminars were required by the teachers in order to determine whether the pupils were on track with their normal studies.

Workshops: -Numerous organizations and universities held online one-day, two-day, and one-week workshops to develop students' cognitive abilities and provide them with a variety of opportunities.

Webinars: - Great resource people in Zoom and Google Meet organised online lectures and conferences. The majority of the webinars were held in accordance with a campaign to raise awareness of Covid 19 and the value of online learning.

Quiz :-Online quiz contests were held electronically to inspire students to maybe make them learn and review their courses through quiz competitions and to refresh their thoughts.

IGNOU's ICT initiatives for COVID 19

The Indira Gandhi National Open University (IGNOU) has implemented around 184 programs using ICT approaches. This has resulted in the establishment of a learner support system that offers additional services to over 4 million students. To provide academic counseling, IGNOU has utilized social media platforms such as Twitter, Facebook, email, WhatsApp, Gyanvani, and GyanDarshan. During the COVID-19 pandemic, IGNOU launched 59 digital courses. The faculty and staff have leveraged extensive technology to conduct online counselling sessions, continuous assessments, evaluation of assessments, practical, official meetings, and examinations through Web Enabled Academic Support (WEAS) and other social platforms such as Google Meet, Google Classrooms, Zoom meetings, CISCO, and Microsoft Teams. IGNOU has made significant efforts to provide students with comfort and effective learning. The university organized 33,000 digital sessions during COVID-19 and uploaded 786 courses as e-content on its mobile app.

Table - 1

Usage of Online Platform statistics in India

Online platform	Students
Zoom Meeting	300 Million
Google meeting	300 Billion
Educational Apps	900 Million
CISCO	84 Billion (internet video minutes per month)

Source: The Economic Times, June 2021

The utilisation statistics for four popular online learning platforms are shown in the table above. These platforms are easy to use and keep students engaged. As a result, Google Meet is selected by the majority of institutions for the teaching and learning process.

I. Government Initiatives:

The idea of distant learning was investigated by the Indian government and several educational stakeholders by utilising various digital technologies. Table 2 lists the government of India's state-by-state initiatives.

Table - 2¹

Initiatives Taken by the Government in India (State Wise)

S.No	States & Union Territories	Interventions
1.	Andaman and Nicobar Islands	Broadcast through Doordarshan, audio classes, Tele- classes on local cable TV network, repository of digital content, Google platform
2.	Andhra Pradesh	VidhyaVaradhi TV lessons, NISHTHA online courses, Online training for

¹ Report 2021 Department of School Education & Literacy, Ministry of Education, Government of India, accessed on 27/04/2023 at 12:00 p.m.

		teachers and school safety, Health & teaching aptitude levels, bridge course material, whatsapp group chat, zoom meetings, Ek Bharat Shresth Bharat online quiz, DIKSHA
3.	Arunachal Pradesh	Radio school, E- Studio, ArunPrabha Channel, EDUSAT, Portal for educational administration, Local content in vernacular .
4.	Assam	DIKSHA, Energized Textbook, Virtual mode, Television &Radio classes, VidyaDaanProgramme
5.	Bihar	Web-based learning, MeraDoordarshanMeraVidyalaya, Digital Educational Portal, Vidyavahini App, UnnayanApp,Bihar Career Portal and app, Mobile learning center, providing mobiles to school students, Anandshala
6.	Chandigarh	Online Talent Hunt, RashtriyaAvishkarAbhiyan, Maths and science clubs, writing skills, Virtual Reading mela, Book Mela, Online Language Fetsival, Inclusive education, Whats app group learning, SamagraShiksha, Samvaad
7	Chhattisgarh	PadhaiTuharDwar, CG multimedia mobile app, EDUSAT network, Connected learning initiative, Code club, 8 Credit modular course, Tech4teachers, SAGES, Girls

		Education, Program, HarKadamBetiki Sang campaign, School Ek- Ehsaas, HaushlekiDagar, E- Gupshup, Sampark Foundation.
8.	Dadra and Nagar Haveli & Daman and Diu	E-GyanMitra Portal, Mobile Applications, Vande Gujarat Channels, Home Visits, Report generation monitoring, Mission Vidhya Project
9.	Delhi	SCERT, Inclusive Education, SamagraShiksha, Departmental Website,
10	Goa	Online teacher training programs, TV-lessons, Educational E- content, DIKSHA, JIO Embibe, Online Capacity building program, STEP app program
11	Gujarat	Parivar No MaaloSalamataneHufado, GareShikye, Assesment of Studetnts, Distribution of books, Virtual classes, GranthalayaProgramme, EkamKasauti, PrashnaUkeloInaamMelvo, Samulkyanam Building Programme
12	Haryana	TV learning, EDUSAT, Whatsapp& SMS, SHIKSHA MITHRA campaign, e-content creation, DIKSHA- Haryana
13	Himachal Pradesh	Content creation, Online Assessment, HarGharPathshala
14	Jammu & Kashmir	Online Monitoring Tool, Career Information on Portal, DIKSHA, e-content

15	Jharkhand	DigiSath initiative, Teacher Professional Development, DIKSHA, Inclusive education, Vocational education, Liasion with civil society groups.
16	Karnataka	Vidyagama Program, Makkalvani Program, Samveda, DIKSHA,
17	Kerala	First- Bell online classes, White board, Thenkoodu Mobile app, Sameeksha, MudrikaPatam, DIKSHA, Shruthipatam, Mazhivilppovu, Digi-fit, Hello English, Sathrapatham, Rasakkootu
18	Ladakh	Tablet distribution, ICT/ Smart classrooms for HS/HSS,DD kashir, Kargil, DSEL online educational apps,
19	Lakshadweep	TALENP,SCERT, MPLAD, Share Class, you-tube, DIKSHA
20	Madhya Pradesh	DigiLEPprogram, Radio school, whatsapp group, Digital oritntiation, online classes, CM rise teacher professional development,
21	Maharashtra	Abhyasmala Campaign, Academic Leaning Calendars, Missed Call do kahanisuno, GoshtichaShaniwar, JIO TV & JIO SAAVN, Google classroom, Counselling Portal, Dyangangaprogramme, A special English Hour, Online ShikshakVyavasayikVikasManch,

		SWADHYAY, VidhyarthiMitra
22	Manipur	Jio- TV channel, Radio Class, e-learning, Lairik app, You tube, School Syllabi.
23.	Meghalaya	E-learning portal. DIKSHA-Meghalaya, CR projects, The Way Forward, MLEAD
24	Mizoram	TV channel, You- tube channel, NIKSHATA on DIKSHA, Online classes at DIET's, Health and Wellness programme, Early English Language Teaching, ECCE, Bharat- Swantanra Bharat
25.	Nagaland	Tele/ Radio online education, Supplementary study materials, inclusive Education, online Evaluation portal, teachers' app, teacher's online transfer portal
26	Odisha	OdishaShikshaSanjog, Radio Pathsala, ShikshaDarpan, Madhu App, DIKSHA, Microsoft teams, Zoom meetings, Google meeting, E- Vidyalaya app, ParikshaDarpan,
27.	Puducherry	Community Radio, DTH TV channel, VetriNichiyam, online Textbooks, Digital Repository, you-tube, establishment of studio in the directorate
28	Punjab	Ghar Bethe Sikhiya Program, Harmonizing Learning, Radio

		programme, Virtual classes, Project based experimental learning, Punjab Educare app, KHAN academy, DIKSHA, EDUSAT.
29.	Rajasthan	AaoGhar Mein Seekhein, e-kaksha, Shaladarpan,
30.	Sikkim	Sikkim edutech app, Collaboration with Joy of Learning Foundation, provision of 32- inch smart android TV with connection TATA sky free subscription of 1 month, 3 months free subscription of Vedantu Channel
31.	Tamil Nadu	Video lessons through High – tech lab and Kalvi TV, video bridge courses, Video work books, you – tube, TNSCERT, DIKSHA, VidyaDaan, TNTP, SMC/SMDC
32.	Telangana	Energized Textbooks, DIKSHA-Telangana, Live- Phone In Program, Tic Tac Learning videos, Whatapp chat Box, RashtriyaAvishkarSaptah 2020, India Toy Fair 2021.
33.	Tripura	Whatsapp& Telegram group, Call center to clear doubts, Psychological counselling, All India Radio, Agartala, EktoKheloEktoPado, Vande Tripura
34.	Uttar Pradesh	Tic Tac learn, Gully Sim, ToonMasti, English Seekho, e-Pathsala 2.0, Doordarshan
35.	Uttarkhand	Continuous Learning plan (CLP),

		PRAGYATA, DIETs, Doordarshan, DIKSHA, OM e- vidya, Gyan Deep
36.	West Bengal	Learning through activity tasks, BanglarSiksha Portal, BanglarSikshaDurabashe, Audio – Visual learning.

**Source:India Report Digital Education (2021),
Department of School Education & Literacy,
Ministry of Education, Government of India**

Table 2 lists the new policies adopted by the government during the COVID-19 epidemic and put into practice by Indian states and union territories. Every state and Union Territory has a different type of educational system. Therefore, the new method of learning has eliminated the possibility of increasing the educational gap.

I. Issues and Challenges faced in Online education :-

- **Distance Learning:** Online classes have created a gap between students and staff, making it difficult for them to communicate directly. This has resulted in distance learning, which does not align with the traditional education system.
- **Online Classes:** While daily online classes have been an effective measure for students, they have encountered several obstacles such as network issues, miscommunication, lack of routine work, irregularity of students, and reduced attention spans. These issues have caused students to lose interest and focus.
- **Job Insecurity:** The pandemic has resulted in a significant decline in job opportunities. Many teachers were asked to resign as institutions could not pay them. Staff members were unable to balance personal and institutional work schedules due to the shift to online classes. Many teachers voluntarily quit as they found it to be overwhelming.
- **Time Management:** Limited staff meant that they had to take extra classes with no other option, leaving them with little time to handle online schedules. This resulted in a prolonging of time, making it challenging to complete online sessions on time.

- Technological Obstacles: Technology has played a significant role in education during the pandemic. However, not all teachers knew how to use it effectively, and some students did not have access to the necessary technology or applications.
- Reduced Potential: Offline classes allowed students to be more involved and productive, but online classes have resulted in a lack of interest and potential. Students are often absent from daily online activities, leading to a digital education gap and a loss of focus on education.

Conclusion

The contemporary educational landscape has undergone various modifications as a result of the COVID - 19 pandemic. The COVID-19 pandemic has had a significant negative impact on the Indian educational system. Not only have students been impacted by this epidemic, but low-income institutions and schools have also experienced a decline in enrolment. Due to the shutdown of schools, educational systems were compelled to swiftly develop and implement various forms of remote learning, including radio, television, and numerous web applications. Online education has evolved into a smart method of education in contemporary society thanks to its enhancements of personalisation, real-time feedback, and intelligent engagement. The flexibility of online learning allows for variation in approach. Thus, technology has paved the way for education by enabling virtual connections between professors and students through online classrooms, webinars, and other means. But not all children across the country have access to this educational technology. Despite issues including data limits, unreliable network connections, and the high cost of internet, students chose online classes for their advanced online learning process. In the near future, technology will push us towards virtual education.