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VIRTUAL LEARNING IN THE CRITICAL JUNCTURE OF COVID-19: ROADBLOCKS AND COUNTERMEASURES

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ABSTRACT

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COVID-19 pandemic has created the largest disruption in education system of entire history across globe and thereby, Virtual learning has become the overnight explosion to revive the education system. Institutions have raced against time to make this

challenging transition from face to face mode to virtual. Hesitancy among the users has diminished and people have got a greater confidence to use internet. The developed countries have adopted the neo-normal in a short period of time but the developing countries like India buckled with this transition. The biggest roadblock faced by the universities and colleges is preparedness of institutions, faculties as well as learners for online teaching-learning. There is a lack of fundamental ecosystem that supports teaching in virtual classroom. Even if, some institutions are equipped with the facilities but most of the students don't have the access to internet which is the basic requirement to make virtual learning possible. But it is not that using technology in learning is a completely new approach in India. It is an emergency which is forcing the entire education system to go online. All the Indian students grew up in an era of traditional face to face setting. Virtual learning cannot replace the face to face learning. It is just an alternative which has its own limited advantages. Thus, in this conceptual paper authors try to throw light on the problems and challenges faced in virtual teaching-learning in the higher education sector and its countermeasures.

Keywords:

Virtual learning, Covid-19, Higher Education, Technology.

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Page | 76

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Volume- II, Issue – 2, DECEMBER-2022

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INTRODUCTION

COVID-19 is probably the largest pandemic the entire globe has ever seen before (UNICEF, 2021). Effects of this crisis have been significant as well as unanticipated. It has created massive disruption in education systems on an unprecedented scale in the history of all over the world. The pandemic affected around 1.6 billion learners due to school closure (Ekholm, B. & Fore, H. 2021). The closure of educational institutions have impacted 94% of the world's student's population, up to 99% of those students who are in low and lower middle income nations (United Nations Policy Brief, 2020). For many students more than one academic year has been lost.

India is the 2nd most impacted nation in the entire world (UNICEF, 2021). The government of India imposed full lockdown from 24th march, 2020. There was a complete shutdown of education institutions. The standstills of schools, colleges and universities have largely affected students from pre-primary to tertiary level. The Ministry of Education presented Alternative Academic Calendar (AAC) 3 in April, 2020 and recommended to continue education in online mode (UNICEF, 2021). Virtual learning has become the overnight explosion to revive the education system. Institutions have raced against time to make this challenging transition from face to face mode to virtual. To mitigate the effects of COVID on education the Union HRD Minister Shri Ramesh Pokhriyal urged and encouraged institutions to embrace and promote digital learning. But talk and action are two completely different poles. The educational institutions of India were grappling with this complete transition. It has shone a spotlight in the roadblocks of virtual learning such as learning outcomes, capacity of teachers, access to technology, digital infrastructure, etc.

SHOCKS AND AFTERSHOCKS OF THE PANDEMIC

Education system of India went through a huge change when it gets the New Education



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Volume- II, Issue – 2, DECEMBER-2022

ISSN: 2583-0740 (online)

Policy 2020 after 34 years. The policy makers, teachers and all the stakeholders just started to prepare for the implementation of the new policy. Suddenly, the whole world has changed in the blink of an eye after arrival of COVID. Like the all other sector, education also affected due to the pandemic.

Education Prior to COVID

Higher education in India was not in a satisfactory level after more than 70 years of its independence. In top 1000 universities around the world there is not a single one from India (The Hindu, 20/03/2020). As per the report of All-India Survey on Higher Education (AISHE), the Gross Enrollment Ratio (GER) for the academic year 2018-19 in India is 26.3% in higher education. As compared to the other developed countries it is quite low and not sufficient to fulfill the growing demands of the nation. Although the government of India is continuously focusing on to ensure quality education but a large number of higher education institutions are not able to fulfill the minimal requirements of UGC. As per data revealed by NAAC not even 25% out of total institutions were accredited as of June 2010. Moreover, those institutions which are accredited only 30% universities and 45% colleges ranked at "A" level (Sheikh, Y., 2017). Some other challenges of higher education are poor infrastructure and physical facilities, shortage of faculties, inadequate focus on research and poor funding, lack of professionalism and transparency in management, students' poor performance, their employment status, poor track record in receiving national recognition and awards etc are the evidences and many more. Even a lot of vacancies are there in higher education institutions but huge number of NET qualified and PhD holders are unemployed. The prime focus of a higher education institution i.e. research and academics is being diluted because of increased number of affiliated colleges which is creating significant burden in administrative functions of a university (Kumar, 2015). However, both the central and state universities have to deal



(Journal of Humanities and Social Sciences)

Volume- II, Issue – 2, DECEMBER-2022

ISSN: 2583-0740 (online)

with these problems but state universities are handicapped at one more front because of dissimilar arrangement between state and central.

Education after COVID

The Indian education sector has witnessed a massive transformation after the arrival of COVID pandemic. Educational institutions were forced to shut down because of the highly contagious nature of novel corona virus. To continue the transaction process institutions need to transform teaching learning from traditional chalk to talk method to virtual. Government of India issued a letter (21/03/2020 D.O. No. Secy (HE)/MHRD/2020 DHE, MHRD) through the Department of Higher Education under the Ministry of Education, that recommended the stakeholders to use digital learning mode during closure so that students don't have to stop learning (Sipre and Malik, 2017). Around 40,000 colleges and 1000 universities in India moved to conduct classes in Virtual mode. The Department of Higher Education (DHE) decided to reopen universities for research scholars and graduate students from 15th October 2020 with the recommendation of online learning. (Kantipudi, P., Moses, C., Aluvalu, R. & Goud, G., 2021). It is become crystal clear that the crisis disrupted all the sectors of the entire nation but on the other end of the spectrum, it can also be considered as a catalyst for positive change.

COVID AS A CATALYST FOR EDUCATION: A BLESSING

Using technology in education is not a recent strategy of teaching-learning. But it has not gained that much importance it should be. But the pandemic became a bonus for the use of technology. It has got the prime focus out of necessity and to keep things going (Rajan, A., 2021, 17 March). Almost all the educational institutions had to go online even the brick and mortars also. Hesitancy among the users has diminished and people have got a greater confidence to use internet. Moreover, the concept of back bencher a mental stereotype has passed and classroom setting has become democratized. Last but not the least, COVID pandemic has necessitated various innovation in the field of



(Journal of Humanities and Social Sciences)

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education which would have a long term impact so that when situations will be normal, it will not only be a new normal but also a high normal (Ranjan, A., 2021, March 17).

COVID AS CURSE FOR EDUCATION: THE ROADBLOCKS

Before the COVID crisis, education sector in India was already overwhelmed with various formidable problems and challenges. The pandemic aggravated pre-existing challenges of higher education. Both the teacher and taught have to face numerous problems regarding education.

Preparedness of Teachers and Students: Cornerstone of Education

In March, 2020 when higher education institutions were racing to complete the syllabus, teaching was at its peak; an unannounced guest came and stayed longer than expected. The crisis demanded universities and colleges to offer remote learning immediately (Paliwal, M. & Singh, A. 2020). As the institutions started to continue with virtual mode faculties faced with numerous challenges. Initially for 90-100 days faculties faced instant urgency regarding delivery of course content, using technological gadgets, innovative ways to keep students captive during class etc. Most of the higher education institutions have struggled to offer required training for the teachers to move to virtual classes (Hassan, M., et al., n.d.).

In India, higher education institutions used several mobile applications for virtual learning platform such as Zoom, Google meet etc. These apps have become virtual meeting hubs. Faculties were directed to use these applications to engage classes through virtual mode. Question arises how many teachers were well equipped to use these application. The faculties who were not acquainted with these application and technologies had struggled a lot to take classes online. Many of the faculties were arranged classes as they were directed to do so not for the sake of effective learning. Controlling the class in a virtual mode was just near to impossible for the teachers (Tari, S., & Amonkar, G. 2021). The most important cues for a teacher are eye contact and body language which are missing in virtual class. A college teacher of Mumbai said that he do not receive feedback from the side of students which leads to ineffective teaching. There are some



(Journal of Humanities and Social Sciences)

Volume- II, Issue – 2, DECEMBER-2022

ISSN: 2583-0740 (online)

old age teachers who are not technologically well equipped (Sharma, 2020).

In case of students, they had to face too many changes during the entire period of COVID. Face to face learning got diminished students started to being passive during the class. It also leads to poor participation, lack of motivation, attention etc. Studies found that lot of them joined classes just for their attendance. Learners barely pay attention in the content taught by the faculties (Tari, S., & Amonkar, G. 2021). 93.4% learners feel that quality of education has been degraded in remote learning (Francis, L. 2021, February 5). Dr. Surbhi Dayal, a faculty of IIM Indore conducted a study on online studies and found out that most of students are not satisfied with online learning (Times of India, 2021, February 5). College students find their mobile phones distracting. Their hands on laboratory practices, field visits got hampered by the online education (Karyala, P., & Kamat, S. 2020). Dr. M. Manjula a professor of the dept. of clinical psychology at the National Institute of Mental Health and Neurosciences Bangalore said that majority of college students who wants to study in a good institution find themselves in an uncertainty. This kind of uncertainty leads to lack of motivation as the assessments are few or the exams are cancelled (Kaveri, M., 2021, May 20). Situation is pathetic for the marginalized students as they do not have access to technological gadgets which is the prerequisite of virtual learning.

Dearth of Fundamental Ecosystem of Institutions

Several universities of India started to make the transition of virtual teaching and learning into reality and put their effort to utilize their technologies for online learning. Top universities of India like Indian Institute of Management (IIM), Indian Institute of Technology (IIT), Symboisis International University, Jawaharlal Nehru University (JNU), Jamia Millia Islamia, Netaji Subhas University of Technology, Delhi University etc started classes in virtual mode. But many higher education institutions do not have the technological facilities to support online platforms like Moodle, Microsoft Teams, Blackboard (teaching app), Zoom etc (Joshi, A., Vinay, M., & Bhaskar, P., 2021). Many universities in the country have pointed out that they are just not equipped and even if



(Journal of Humanities and Social Sciences)

Volume- II, Issue – 2, DECEMBER-2022

ISSN: 2583-0740 (online)

they are equipped for such virtual classrooms many of their students don't have access to the internet which is the fundamental perquisite to make any level of online education possible (Desai, D., 2020).

Higher educational institutions of India were already facing a lot more problems and the crisis magnified those. Institutions were not really ready to restructure the entire education system including curriculum, pedagogy, assessment and evaluation etc which hampered the entire teaching-learning system in India.

Pedagogical Challenge: Stumbling Block towards Virtual Learning

No one was ready for the sudden shift of transition into virtual learning. To continue learning teachers were forced to move from traditional chalk-to-talk method to virtual mode overnight. The pandemic compelled higher education institutions to redesign the entire curriculum, reinvent teaching learning process, restructure learners assessment and evaluation etc. Universities in India restored the education system by encouraging students towards virtual learning and online examination (Ashri, D. & Sahoo, B., 2021).

Although online learning was not an option, it was the need of the hour but some scholars criticized this method. It is discriminatory for marginalized learners as they don't have the access internet, computer illiteracy etc. In India, private universities were not affected by the transitions because they already had ample facilities for conducting examination in online mode. But the most hampered one are public universities. These universities found difficulties to adapt to the neo-normal (Ashri, D. & Sahoo, B., 2021).

For higher education institutions it was bigger challenge to explore alternative way to conduct effective exam (Sinha, 2020). Assessment in virtual education came up with innumerable challenges. At first, universities postponed exams but the pandemic stayed for a long with its 2nd wave and institutions were bound choose online examination (Crawford, 2020). Higher education institutions followed different methods to conduct online examinations like Assignment Based Exam (ABE), Open Book Exam (OVE), Videoviva Exam (VVE), Audio-viva Exam (AVE), Online Proctored Exam (OPE) etc (Shakeel, A.,



(Journal of Humanities and Social Sciences)

ISSN: 2583-0740 (online) s) Volume- II, Issue - 2, DECEMBER-2022

Shazli, T., Salman, M., Naqvi, H., Ahmad, N. & Ali, N., 2021). Hasty development of OBE at University of Delhi resulted to various technical glitches. Because of technical drawbacks, students could not submit their answer scripts at the stipulated time. Managing OBE was also another challenge which often resulted to delay in declaration of result (Chettri, 2020). Many teachers and academicians believe that the shift to virtual learning has leads to academic dishonesty (Moralista & Oducado, 2020). Students also escalated issue about poor availability of study material suitable for OBE (Ashri et al., 2020). In a nutshell, the entire education system had to face a paradigm shift in pedagogy from traditional face-to-face to remote learning (Cuaton, 2020, Wang et al. 2020) which acted as a stumbling block towards virtual learning.

Digital Divide: An Ultimatum to Inequality

Digital divide refers to inequality in terms of access to information technologies, digital techniques and tools among people of a society (Khan, S., Mohakud, L. 2020). It is the gap between those who have effective and regular access to digital technologies and those who don't have access to the same. Digital divide is not a recent problem but the novel COVID-19 has aggravated the issue. There is a significant rise in using internet in India; still digital divide is there in ICT use (Tapashi, 2018). The Internet Penetration Rate (IPR) in India is 40.40% as of March 2020 (Khan, S., Mohakud, L. 2020). Across the country Mumbai is in the top which has 13 million users followed by Delhi which has 11.3 million, Bangalore has 6.6 million, Kolkata has 6.2 million and Chennai has 6.0 million users (Internet World Stats, March 2020). Out of total, very few students as well as teachers have access to laptops, computers and mobile phones. University of Hyderabad conducted a study and found out that however 90% of students have a smartphone but only 63% could access online classes uninterruptedly. 40% of them could not attend classes due to connectivity issue, 30% students also reported high cost of data and 10% cited poor electricity supply in their locality which is also a major deterrent (Khan, S., Mahakud, L., 2020). A report revealed by UNESCO states that, out of total half of the students kept out of online classes as they do not have access to digital technology and

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(Journal of Humanities and Social Sciences)

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ISSN: 2583-0740 (online)

43% do not have internet at their home while remote learning is used to ensure continuity of education (Jahangeer, 2020). Some students have access to internet but there were an issue of connectivity (Agormedah et al., 2020, Agung et al., Paudel, 2020, Qazi et al., 2020).

However, 78% Indians have smartphone but it is 57% in rural India (The Telecom Regulatory Authority of India, 2020). Only 14.9% rural students have internet facilities at their homes and out of them 4.4% have a computer. In case of urban students, 42% have internet access and 23.4% have a computer (Khan, S., Mahakud, L., 2020). Thus, there is a vast gap between the urban and rural students in terms of access to internet and availability of digital technology.

INITIATIVES TAKEN BY THE GOVERNMENT OF INDIA

E-Gyankosh

It is a platform where digital learning resources are shared by open and distance learning institutions in the nation. Here, study materials for students are also made accessible.

Gyandhara

Gyandhara is an internet service where learners can listen the live discussions from different experts. Through telephonic conversation students can interact with the experts.

Swayam

As per report under Swayam there are around 1900 courses available from school to tertiary level of education (Tari, S., & amonkar, G., 2021).

Digital Integrated System for Holistic Teaching and virtual Orientation (DISHTAVO)

Government of Goa created a new e-learning i.e. DISHTAVO. It is especially designed during the pandemic. It includes various study packages like B.A., B.Com, B.Sc etc. It is developed as per guidelines prescribed by SWAYAM and MOOC. Prime focus of DISHTAVO is to create a repository of electronic content with the syllabus of Goa University (Tari, S., & amonkar, G., 2021).

Moreover to these initiatives a lot of libraries have developed institutional repositories to



(Journal of Humanities and Social Sciences)

S) Volume- II, Issue – 2, DECEMBER-2022

ISSN: 2583-0740 (online)

Page | 85

make literature free access to learners (Bansode & Patil, 2014). Government of India has taken the COVID-19: Stay Safe Digital Learning initiative of MHRD (20/03/2020 D.O. No. Secy. (HE)/MHRD/2020 DHE, MHRD) which encouraged to promote digital learning in higher education institutions to continue their education by using available e-learning or digital platforms like Diksha, E-Pathsala, National Repository of open Educational Resources (NROER), Swayam Prabha etc.

COUNTERMEASURES

Emphasis on "3Cs"

The country needs to focus primarily on "3Cs" for effective virtual learning i.e. content, capacity and connectivity. Content should be redesigned to meet the needs of digital demands and for capacity training should be provided for faculties to make them skillful regarding technologies. Emphasis should also be given to access to internet and technological gadgets both for teachers and students. This will help to provide access to quality education for every student.

Collaboration of Institutions

Higher education institutions should work jointly to encourage collaboration thorough existing or new networks. Institutions should also exchange open source software and ideas at the global as well as regional level. Research collaboration of universities is inherent to mitigate the loss due to the crisis.

Research Grants

Research funders and higher education institutions should provide funds to prevent the "lost generation" of research scholars. Institutions and funders should support these scholars in terms of mentorship, research grants to bring back interest towards research and to strengthen employability.

Expansion of Internet Access

Government should take initiatives to expand the internet access for each students as well as researchers. Some of the nations are working with communication companies for low cost or free access to learners. These kinds of initiatives should be scaled up and



(Journal of Humanities and Social Sciences)

Volume- II, Issue – 2, DECEMBER-2022

ISSN: 2583-0740 (online)

accelerated to global level.

Expansion of Access to Technologies

International Organizations like UNESCO should expand access to high quality Massive Open Online Course (MOOC) to bridge the gap in resources where primary technologies are unaffordable by collaborating with local universities.

Review systems Assessments of Students

Higher education institutions should review the system of evaluation and assessment of learners. Students' assessment should consider some aspects like how COVID affected students specifically when it is about the vulnerable population.

Facilitate Personal Interaction

When the situation will be normal, feasible and safe universities should facilitate personal interaction with students. Some students struggled to learn in the online mode and they kept silent during the classes. They need additional support from the side of the faculties. So teachers should provide that support and training to those who actually need in order to ensure they are skilled to enter into the workforce of the country.

Along with these, people should take advantage of public libraries to bridge the gap in digital divide in India (Ranjan & Singh, 2020). Government of India should create an innovative learning domain which can provide education to each learner in an easy way. Government should release funds for the disadvantaged groups and also focus on the requirements related to education of marginalized learners. Authorities should also ensure that apps related to education could be used in both laptop and mobile phones. Initiatives should also be taken to donate a day's salary by the faculties and other members of society. Equal participation of both community and government is highly needed to overcome the ultimatum "digital divide". Last but not the least, only electronics devices cannot solve the huge problem alone, there is a need to enhance the knowledge and skills to use these technologies are equally important (Khan, S., Mahakud, L., 2020).

KANCHIOLI

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Volume- II, Issue – 2, DECEMBER-2022

CONCLUSION

It was an emergency that forced the education system to go online. But virtual learning has been the last minute savior to continue teaching-learning across the globe and to combat the crisis even if it has some strength and flaws. All the Indian students grew up in an era of traditional face to face setting, ordinary standards, traditional classroom management etc. So, people are looking at virtual learning through the lens of face to face learning. Advantages and affordances of e-learning will be miss out if people will rigid their mindset. Virtual learning cannot replace the face to face learning. It is just another medium of teaching learning which has its own advantages. Moreover, Government alone cannot mitigate the negative effects of COVID, the country also needs support from its citizens.

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