CHALLENGES OF HIGHER EDUCATION DUE TO COVID19: OVERCOMING THE BARRIERS THROUGH ICT

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ABSTRACT

In the past two years India has faced a lot of trouble due to sudden spread of pandemic due to which the immense growth in the field of Education sector was adversely affected. We always say that gaining as well as providing education is never ending process, it can never be congested. Keeping this thing in mind the use of modern LMS (Learning-Management-System) came into force. The pandemic made us realize that not only the old traditional methods (face-to-face teacher student interaction), but also the modern LMS method is a necessity in the *new India*. Currently each and every sector is joining forces with Information and Communication Technology (ICT). ICT plays a very important role when it comes to education. When we talk about higher education, it has faced a lot of challenges, and then ICT came to the rescue. It helped in overcoming the barriers of higher education. While writing this research paper there were several challenges found such as the students as well as teachers facing difficulty in adapting the new system, students lack of concentration while ongoing classes, miniscule (very less) interaction, indiscipline behavior and many more which has been discussed in the research paper. Several tools were found which provided such platform where educators and students can communicate while sitting at their particular homes such as Zoom, Google meet, Google classroom, You tube, Teach mint, NLP (Next-learning-platform) applications, etc. With the help of these tools students were able to reach to the best educators not only in India but across the whole world. Now,

these tools are also helping teachers to *reach the last student in the last mile*. The Government of India has always been very active when it comes to providing education to children as well as women who don't have enough money to afford the cost of education. Seeing the difficulty faced by them, also to ensure the higher education of students government of India has launched various schemes such as AICTE Doctoral Fellowship (ADF),Pragati scholarship, Manodarpan scheme (one of the schemes under Atma-nirbhar Bharat Abhiyan) etc. Few schemes are discussed briefly in the concerned paper. LMS has not only been helpful in providing education platforms for students but has also encouraged teachers, professors to keep in pace with updated technology.

Keywords: Information and Communication Technology, Higher Education, COVID-19, Learning Management System, Online teaching-and-learning platforms.

INTRODUCTION

Corona viruses are a large family unit of viruses that causes illness aligning from common cold to more stern diseases like Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). COVID-19 was first identified in Wuhan, China in 2019. No part of the world has left untouched. The world has suffered massive loss and damages. The education sector is facing rapid changes and also shifts in entire pedagogical approach. It transformed from traditional to modern techniques. Due to pandemic there was sudden increase in death rates. The whole world was facing the pandemic which brought the condition of lockdown in the countries because of which people lost their jobs, they were restricted to their homes. All the higher institutions and schools, colleges were closed. The pandemic has enforced the Education Sectors to move significantly to virtual and blended modes of teaching and learning using various Information and Communication Technology (ICT) tools and has drastically pick up the pace and urgency of various technology driven initiatives. Students and teachers both now depends on different online e-platforms to adopt new educational methods to study and teach. The education sector has come a long way. Earlier in the back days, it was started in the form of Gurukul or Pathshala but now we have shifted to online learning and teaching methods. There has been a enormous rise in adopting extensive use of online tools like Zoom, mobile applications, Google Classroom, Google Meet, Teach mint, Next Learning platform etc. to assist communication with parents, television, radio and telephone to try to reach every apprentice. This global crisis has actually made us realize the prospective of ICT in achieving the purpose of education.

LITERATURE REVIEW-

- **Sharma (2021).** This paper was focused on initiatives taken by ICT on National level by UGC and MHRD like Diksha, Manodarpan etc. as well as State level like Kerala - KITE initiative, Maharashtra-The Learning from Home Package etc. It also represents the Individual initiatives taken by people such as Digital Daan, Smarter ED Platform etc. The researcher emphasized that blended mode of teaching and learning should be adopted in post-COVID scenario.

- **Shakir (2021).** The study investigated the impact of COVID-19 on education sector and different challenges faced by students from their point of view. The author found out that there was severe influence of pandemic on education sector. The author also mentioned some of the suggestions for coping up with the challenges.

- **Saha et al (2021).** The paper highlighted the scenario of Indian Higher Education in Covid-19 situation, also stated the role of government and other institutions during pandemic like technology based learning, MOOC's etc.

- **Naik et al. (2021).** The article evaluated the approach of students towards online learning. It represents the data about the students that how much they are satisfied with studying on online platforms. The author has used likert scale in order to know the level of satisfaction. The author also emphasized upon key strategies to be adopted for enhancing online teaching - learning experience.

- **Tari et al (2021).** The paper investigated the importance of ICT tools in overcoming the barriers faced by higher education system during Covid-19 pandemic. The author also mentioned various different forms of ICT tools used by government in order to help teachers to conduct their teaching by sitting at home also to motivate the students to continue learning during pandemic such as SWAYAM, DISHTAVO, Gyandhara etc.

- **Roy and Srivastava (2022).** The article was focused on explaining the concept of Education 4.0. It also exhibits the importance of blended learning in INDIA. The authors also displayed the resources, modes, advantages, issues, challenges and implementation strategies for blended learning.

OBJECTIVES OF THE STUDY

- To know the impact of Covid-19 on higher education.

- To study the challenges faced in the field of higher education during pandemic.

- To investigate the role of ICT tools.

- To take a look at the initiatives taken by government.

EFFECT OF PANDEMIC ON HIGHER EDUCATION

The COVID-19 pandemic has created the largest disturbance of education systems in history, affecting nearly 1.6 billion learners in more than 190 countries. Closure of schools and other learning spaces has impacted 94% of the world's student population. The disruptions caused by COVID-19 to everyday life meant that as many as 40 million children worldwide have missed out on early childhood education in their critical pre-school year. One of the major and devastating impact this pandemic brought in the global education is , it led to sudden shift of education from classroom teaching to the online mode of teaching and learning that has affected the teaching and learning process in Universities, colleges and schools and thus it has significantly disrupted the higher education sector in India. This shift in education has brought a great change in the pattern of learning with certain positive and negative impacts. In the most fragile education systems, the interruption had a disproportionately negative impact on the most vulnerable students, those for whom the conditions for ensuring continuity of learning at home are limited.

CHALLENGES FACED IN THE FIELD OF HIGHER EDUCATION DURING PANDEMIC

➤ ADAPTABILITY ISSUES

During the pandemic when online classes were started at the first many difficulties were faced by students as well as teachers. People were not ready to adopt this technology. Though this technology was not new but its actual importance was seen during pandemic. It was a challenge for students to shift to completely virtual method of learning from traditional method. The issues were faced because of unavailibity of smart devices, lack of technical knowledge, costly data packs, unavailability of wifi connections etc.

➤ MIDGET INTERACTION

While interacting online, students get limited time to interact to teachers, which leads to incomplete information or knowledge. Also, every student does not get opportunity to interact with teacher individually. They do not have much time to discuss any topics or problems.

➤ COMPUTER VISION SYNDROME

The most common problem was seen that due to Continuous focusing on screen (laptops/ tablets/ computers) students have faced many health issues. More and more focus on screen may lead to more and more pressure in the eyes like feeling lethargic, migraine, headache, weak eye sight, irritation in the eyes etc.

➤ **AFFORDABILITY ISSUES**

Every person is not capable of affording smart devices or wifi connections. Classes were taken on different online platforms on smart devices from morning to evening which consumed excess data which cannot be affordable by every person. Some data packs/plans are costly in nature. Also, every smart devices does not support every type of applications or softwares.

➤ **INCOMPLIANT(INDISCIPLINE)**

Online teaching learning process led to an indiscipline behavior among students. Such as Not keeping their microphones off while talking, discussing to each other on random topics while teacher is teaching, asking unnecessary/ irrelevant questions to teacher, not answering properly, closing their video off, background noise etc. Several cases has been also registered regarding this behavior of students.

➤ **DECLINE IN PERFORMANCE**

In covid period while online teaching learning process we have seen that there is decline in performance of students. Students have became lazy now they do not want to put efforts in clearing the examination or in their academics. DUE to pandemic everything was online, not only classes but also the exams were conducting online. Students took online exams very convenient and due to lack of invigilation they were not serious. They use different ways to pass the examination by cheating etc., which declines their performance.

➤ **CLASS OR A MONOLOGUE**

 An online learning platform sometimes looked like a one way communication. It acts as a monologue as it felt that teacher is giving a long speech and students are just listening, or just listening not paying attention. It looks like a one way activity. No interaction can be seen in between students and teachers. Because of this students do not understand the concept properly. It also happens when teachers off their camera and only their audio is visible as well as same happens with students.

➤ **HINDERANCE IN DOUBT CLEARNACE**

 Due to limited time boundation students are not able to clear their doubts. hardly, 4-5 students can ask their doubt in that time boundation and rest others suffers. because , of that only few students gets opportunity to interact with teachers.

➤ **TEACHER'S PEDAGOGICAL SKILLS**

Teachers faced a lot of issues as all the teachers are not techno savvy or techno friendly. Every teacher doesn't know how to work on theses digital platforms. Teachers were in a lot of burden for preparing e-content on various topics for students which causes them anxiety and mental pressure.

ROLE OF ICT IN HIGHER EDUCATION

Information and Communication Technology has played a very major role in building the personality of students. It has become an integral part of education system. Not only education but also in providing medical services also. It helps especially those students who are sitting in villages can easily refer to updated information and syllabus. ICT has provided an outstanding online e-platform for students who can study while sitting at home. It bridges the gap between students, educators as well as parents. It helps information to store, process, and recover in quick, precise and fundamental form. It is an enhanced mode of communication. It works as a strategy to offset the scarcity of faculty in higher education. ICT helped in providing expert education to students at anyplace and at anytime. It has shifted the traditional method of learning and teaching to online forum of different software's, computer, and other internet intimidates. ICT has changed the concept of teacher centered learning to student centered learning where teachers acts as tutors, coaches, guide, mentors and knowledge facilitators. It helped in building the strong relationship between students and teachers. ICT was recognized many years before but its actual importance was realized at the time of pandemic. When students have no were to go ICT helped them as their guide to continue their education while sitting at their homes. Various ICT tools were used for providing higher education such as ZOOM, Google Meet, Google Classroom, Next Learning Platform, TeachMint, Microsoft Teams and many more.

INITIATIVES TAKEN BY GOVERNMENT IN HIGHER EDUCATION

- ➤ AICTE Doctoral Fellowship (ADF)-

- ➤ National Digital Library

- ➤ MANODARPAN

- ➤ National Repository of Open Educational Resources (NROER)

- ➤ SWAYAM online courses

- ➤ SWAYAM PRABHA

- ➤ **AICTE DOCTORAL FELLOWSHIP (ADF)**

   This scheme was launched by the government in order to promote research culture in instituitions which are approved by AICTE. It also helps to promote collaborative research between Institute and Industries leading to start-ups. It helps in nurturing talents for technical research. This scheme was launched for duration of 3 years. One year extension (In two slots of 6 months' each) is also provided based on the performance. Amount of Rs. 31,000 is provided for the first 2 years and for the 3ʳᵈ year 35,000 is given.

Also, HRA will be provided at the rate of 8%, 16% and 24% as per the Government of India (GoI) norms as applicable in the city/ location where the Research Fellow is pursuing their research.

➢ **MANODARPAN**

 It is an initiative taken under the ATMANIRBHAR BHARAT ABHIYAN. It was launched by our Prime Minister Narendra Modi in month of MAY. In the period of lockdown it was new for the students, they don't have to go anywhere, they can't step outside of their homes, they cannot meet their friends, and because of all these things they need psychological support. Students were dealing with mental stress. Seeing these challenges faced by student's government launched this scheme. It provides assistance to the students, parents and teachers. The pandemic not only brought medical concern but also psycho-social stress. HRD Ministry has felt that while it is important to focus on continuing education on the academic front, the mental well-being of the students also needs to be given equal importance. It includes various measures such as- Advisory guidelines, Web page, National level database and directory of counselors, National Toll-free helpline number, Interactive online chat option. The Series of Webinars 'Paricharcha' are held under this initiative to reach out to students and all stakeholders with the aim to create awareness about mental health and well-being concerns and ways of dealing and coping with them.

➢ **NATIONAL REPOSITORY OF OPEN EDUCATIONAL RESOURCE (NROER)**
This scheme was launched by Ministry of HUMAN RESOURCE DEVELOPMENT. The METASTUDIO is the platform which hosts the repository. It is a platform or portal which is equipped with best quality information content on different topics in multi or different languages. A total of 14,527 files including 401 collections, 2779 documents, 1345 interactive, 2586 images and many more. Its main scheme to reach those students who are unreachable. The main objective of this scheme is to To store, preserve and provide access to a variety of digital resources to students and teachers, To enable the participation of the community in the development and sharing of digital resources, To enhance the quality of the education system ,To facilitate teachers to create and share contextual teaching and learning resources and to celebrate innovations in resource creation. The resources available on the portal are shareable and are freely available. It provides opportunities to access various educational resources.

➢ **NATIONAL DIGITAL LIBRARY OF INDIA (NLDI)**

NLDI was setup under National Mission on Education through Information and Communication Technology (NMEICT) which was initiated by MHRD. It was setup to provide benefits to students of every level also beneficial for teachers, researchers, professionals etc. It provides Video Lectures, Simulations, Activity, Self Assessments and various Study Materials, Books from CBSE, NCERT and

Other State Boards. It is available in various domains like Literature, History, Geography, Technology etc. The library consists of 10 million items and it is authorized by 3 lakh authors. It hosts more than 60 types of learning resources such as monograph, books, article, video lectures, manuscripts, law judgments, question papers, annual reports, solutions, thesis, data set, audio lectures, reports, technical reports, manual, web courses, album, technical manual etc. All these materials are available in more than 70 languages. Some of the featured repositories are: Krishikosh, INFLIBNET, LibriVox, NPTEL, and NCERT.

➤ **SWAYAM ONLINE COURSES**

Study Webs of Active Learning for Young Aspiring Minds, this programme is initiated by Government of India. This e- online platform was developed by AICTE in 2016. It can be assessed by anyone at any place at anytime. It is available free of cost to achieve 3 cardinal principles of Education Policy which are. access, equity and quality. It covers all the subjects from high school to higher education. It is one of the World's biggest Massive Open Online Courses (MOOCs) online platform. The SWAYAM is divided into 4 parts- (1) specially prepared reading material that can be downloaded as well as printed (2) self-assessment tests (3) an online discussion forum for clearing the doubts (4) video lectures. Help Desk support is also available via telephone and email for solving queries. It covers School/Vocational, Under-Graduate, Post Graduate, and Other different Professional Courses.

➤ **SWAYAM PRABHA**

It is a set of 34 DTH channels which are programmed to telecast high quality educational programmes available 24*7 using the GSAT-15 satellite. The channels are uplinked from BISAG-N, Gandhinagar. The educational contents are provided by UGC, NPTEL, CEC, IITs, , IGNOU. The INFLIBNET Centre maintains the web portal. It helps the students to prepare for competitive exams. All courses would be certification-ready in their detailed offering through SWAYAM, the platform which is being developed for offering MOOCs courses.

SUGGESTIONS

➤ **WORKSHOP FOR APPLICATION UNDERSTANDABILITY**

Like everything has pros and cons. The ICT tool has also a number of advantages. However, it has a dark side too. Students as well as teachers both have faced the problems in using these online platforms. Some of the users have tried their hand first time on these digital platforms. Before giving them something new proper training should be provided to the students and the teachers. Government should setup different workshops or training programmes for providing the knowledge about these online platforms like understanding the proper functioning of that particular application to the users. To adjust in the new surrounding one should know the different elements of that surrounding.

➢ **SET-UP A FREE WIFI SYSTEM FOR STUDENTS**

In today's world everything has gone digital. Being digital keeps us updated but it also consumes lots of data packs. Companies like jio, airtel, bsnl provides data packs with different validity and plans but however these data packs comes with a price which cannot be afforded by everyone. The students attend classes from morning to evening which contains huge data packs. Every student is not capable of affording wifi systems. Seeing these challenges faced by student's government should launch a scheme where students are provided free wifi systems in order to overcome these problems.

➢ **HOST CENTRIC PERMISSIBILITY OPTION**

While conducting online classes teachers face lots of disturbance from students' side. Often students forget to mute their mic and start discussing with each other unaware of the fact that their class is getting disturbed. It creates lot of hindrances in between the classes. Because of this behavior of some students, other students are not able to understand the concept as well as teachers faces lot of problems. Host centric permissibility option should be launched on these platforms to overcome these disturbances. This provides the option where students can unmute themselves in the class only when teacher allows them to speak mechanically.

➢ **BLENDED MODE OF LEARNING**

Seeing all the challenges faced by students and teachers the institutions should adopt blended mode of learning. It means the combination of both online and offline education. It should be done on the basis of seeing the requirement of the situation. Wherever and whichever mode is needed at that particular time, that particular mode should be adopted.

Not only students but also teachers will be comfortable and will enjoy such teaching-learning process.

CONCLUSION

After an immense growth in the field of Education sector, it was adversely affected by the pandemic which made us realize that not only the traditional methods, but also the modern LMS (Learning-Management-System) method is a requisite of this sector in the new India. Now-a-days, every activity is collaborating with Information and Communication Technology (ICT). ICT is one the beneficial tools for overcoming the challenges of higher education. While conducting the research, the adaptability issues, lack of concentration in students, miniscule interaction, affordability issues, monologue, network issues, digital eye strain, indiscipline, etc. were found as the major challenges in the higher education system. Zoom, Google meet, Google classroom, Youtube, Teach mint, NLP (Next-learning-platform), applications, etc. were found as the tools which provided a platform for establishing communication among teachers and students. Even these tools helped the students for reaching the best teachers across the world. Now, these tools are also helping teachers to reach the last student in the last mile. The Government of India has launched various schemes in order to ensure the higher education of students like AICTE Doctoral Fellowship (ADF), Manodarpan scheme (one of the schemes under Atma-nirbhar Bharat Abhiyan) etc. However, various improvements are still required to boost-up the current higher

education scenario. There is need to set-up a free wifi system for students, workshop for application understandability, also blended mode of learning and teaching should be adopted.

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