

A Study Of Covid Impact On Teaching Pedagogy And Academic Institutions

Mrs. Jalpa H. Panery^{1*}, Dr. Meghashree Dadhich²

^{1*}Research Scholar, Department of Management, FoBC, Atmiya University, Rajkot, India. E-mail: jalpapanery86@yahoo.com

²Associate Professor, Department of Management, FoBC, Atmiya University, Rajkot, India. E-mail: meghashree.agrawal@atmiyauni.ac.in

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ABSTRACT

Outbreak of Covid 19 pandemic has critically disrupted each and every aspects of human life including education. It has created unpredictable situation in the area of education around the world. In India government announced lockdown on 22nd March, 2020. Due to that campuses of education institutions mainly school, colleges and universities were closed and teaching and learning has transformed in online mode. In India, approximately 32 crore learners teaching, learning and research stopped. It was the biggest challenge in front of entire education sector. It has been said that necessity is the mother of Inventions. New and innovative ways of teaching and learning tools, techniques, software and new prospects emerged during pandemic time. After Pandemic, introduction of New Education Policy 2020 emphasis on quality, affordability, accountability, universal accessibility of education, multidisciplinary education, institutional sovereignty, promote research which leads to faster transformation of knowledge in to Society.^[22]

Every coin has two sides, proves true in case of teaching and learning through digital platform. The objective of this paper is to analyze impact of covid on teaching and academic institutions in India, challenges faced by teachers, students and academic institutions, sources of online learning, post covid consequences, new teaching pedagogies after covid.

The study will provide the opportunity to pave the way for ministry and related authorities to develop and boost awareness regarding digital learning for beneficiaries academic institutions in India.

Keywords - Covid 19 pandemic, Impact of covid on teaching pedagogy, Higher Education, Online teaching, Learning, Academic Institutions, Digital Initiative, Digital Learning, Innovative Technology, Government Initiatives, New teaching pedagogies.

INTRODUCTION

World Health Organisation (WHO) declared Covid-19 as a pandemic, On March 11, 2020. ^[11] Covid-19 has affected more than 4.5 million peoples worldwide (WHO). According to report of World Health Organisation, approximately 4.5 million people's life has affected due to outbreak of Covid-19 pandemic worldwide.^[12] In India lockdown was announced by the Prime Minister on March 25, 2020 for 21 days (Wikipedia). Evaluating and monitoring the effects of the virus, Indian Government has been extending the lockdown period in different phases and the lockdown 5.0 was declared on April 30 which is effective from 1st June to 30th June 2020. In all the phases of lockdown, the educational institutions closed throughout the nation and even have no any relaxation to start teaching and learning.^[13] Pandemic situation forced entire education system to adopt online teaching and learning. Most of the academic institutions and universities has adopted online teaching pedagogies and continuously made efforts to enhance quality of online teaching and learning.

Occurrence of Covid-19 Pandemic disrupted study of millions of Students across the globe due to closer of school, colleges and universities. More than 32 crore learners affected due to Covid restrictions and lockdown

across India. Government of India was continuously making efforts to lessen the effect of closer of academic institutions by developing digital mode of education and learning for students across India.

Country is struggling in developing online platform for teaching and learning. But biggest obstacle faced over here is that only 45 crore people across nation have access to internet and e-learning. People living in rural areas are still far away from the use of technologies and access to internet. Covid-19 pandemic taught entire nation to switch over from traditional face to face learning platform and adjustable toward new prospects of teaching and learning through online platform. Pandemic affect negatively to entire academic community but on the other hand, it boosts up academicians for innovative teaching and learning techniques.

As per the demand of situation, teachers and students have to learn and adjust quickly to online learning and instructions. Pedagogy refers to an excellent way to attain learning. Online learning does not means only providing study related information and content online but it covers different pedagogy that is online evaluation, individual interaction, group interaction etc. Perfect teaching pedagogy needs teachers to deliver lecture in a way that would be helpful to student to understand content properly. Indian government has taken tremendous efforts to provide lots of free online learning platforms to serve need of learners of different age group.

There is requirement of teacher's education and training for digital platform to cater need of learners wonderfully. Thus, Covid-19 pandemic has impacted badly on the education sector.

LITERATURE REVIEW

Dhawan, S., (2020)^[1], measured effectiveness of online learning and conducted SWOC analysis, Strengths, Weaknesses, Opportunities and Challenges in online learning during covid pandemic time. The pandemic situation forced entire academic system to shift the mode of teaching from traditional face to face learning to online mode. The researcher has pointed out technological start ups like Byju's, Vedantu, Unacademy, Coursera etc.

Jena, P., K., (2020)^[2], found that entire academic institutions fight positively and manage continuity of education during pandemic time, in spite of challenges. Pandemic impacted positively and negatively. But it has been said that necessity is the mother of invention. Lots of new methods, technologies, perspectives and trends have emerged during crisis.

Pareek, T., & Soni, K., (2020)^[3], carried out study on impact of covid 19 pandemic on school education across India. Researcher has collected data form 100 parents, teachers and students of public and private sector schools of Udaipur using structured questionnaire. Study found that digital learning is best solution in the situation of pandemic to maintain continuity of education. Study further added that difficulties in online learning can be solved by skilled teachers.

Tarkar, P., (2020)^[4], explained adverse impact of covid 19 pandemic on schools, higher education, parents and performance of students. Online teaching provides various new perspective of learning, same way some challenges and serious issues are also there.

Trave, M., (2020)^[5] discussed challenges faced by educational institutions due to covid 19 pandemic. Unforeseen emergence of covid shifted many educational institutions from traditional learning to digital learning. the study found many challenges that is inequality in opportunities for education, issues related to technical infrastructure, resistance to adopt change in teaching and learning methods. Government and concerned authorities has taken many initiatives to develop digital platform, to maintain continuity in education.

Dar, S., A., & Lone, N., A., (2021)^[6], investigated that covid 19 pandemic threatened the existence of mankind. There was lot of disruption in education and learning faced during covid time. Internet connectivity is the only thing to stay connected with latest happening in the world. The study found that pandemic transform traditional learning in to screen based learning but it cannot replace the teachers. When students face any problem related to content of study or related to hardware and software, teacher will be always there to solve it.

Godber, K., A., & Atkins, D., R., (2021)^[7], two lecturer of higher education in New Zealand, collected and analysed difficulties faced by students and teachers during crisis. Researcher has discussed economic, social and psychological impact of pandemic on students.

Sut, H., M., & Oznakar, B., (2021)^[8], studied effects of covid 19 on educational system and institutions by reviewing data collected through questionnaire from 50 teachers and students. According to study, people are facing lots of problems in learning and need training and support from responsive authorities. Institutions are facing challenges due to lack of technical knowledge, infrastructure, and planning.

Chaudhary, Firdaus., Jaral, Noreen., Khanam, Saima., (2022)^[9], threw light on various initiatives take by government of India for overall education and teacher education during pandemic time. Researcher has discussed various challenges faced by teachers and students during pandemic. Study found that for digital learning, infrastructural aid is not affordable for some students and even teachers also. Researchers suggest that for adoption of digital learning or blended learning in future, teachers must have to reshape their teaching pedagogies.

Dash, S., Samadder, S., Srivastava, A., Meena, R., & Ranjan, P., (2022)^[10], highlighted various online sources for video conferencing and audio visual meeting during covid pandemic time. Researcher has discussed features, usability and drawback of various online meeting platforms like Zoom, Google meet, Google class room, Microsoft teams and Cisco Webex. Among all Zoom is most popular providing all features and user friendly.

OBJECTIVES

Present study is based on following objectives.

- To analyze impact of covid 19 on teaching pedagogy and academic institutions.
- To evaluate the challenges faced by teachers, students and academic institutions as a whole during pandemic time
- To explore sources for online learning
- To identify consequences of post covid on teaching and education.
- To explore new teaching pedagogies after covid

RESEARCH METHODOLOGY

Research Gap: The present Study will fill the gaps in existing literature. The present study is focused on “A Study of covid impact on teaching pedagogy and academic institutions”. There is wide gap between existing literature on this subject and research conducted by researcher.

Most of the Existing literatures are based on impact of covid on teaching and challenges faced by academic Institutions. But very few of them discussed positive and Negative impact of covid on Education. Further the previous literatures cover limited sources of online teaching. But in present Study researcher has spotted light on initiatives taken by private and Government entities for on line teaching. Further researcher has discussed new teaching pedagogies emerged during and after Covid-19.

Type of Research: The present study is descriptive and empirical in nature. It briefly describe impact of covid 19 on teaching pedagogies, challenges faced by teachers and students in online learning during covid duration, sources of online teaching and learning.

Type of Data: Researcher has used secondary data from academic area, government and non government authentic organizations, covid 19 report of various national and international agencies, websites, journals, periodicals and news papers and magazines. Present study is systematic review from collected data.

Area of Study: The overall area of study is focused on academic institutions in India during the period of covid 19 pandemic.

Sampling Design: Researcher has used convenience sampling.

Period of Study: 2020- 2021 duration of covid 19 pandemic.

IMPACT OF COVID ON TEACHING PEDAGOGY AND ACADEMIC INSTITUTIONS

Inequality in Learning Opportunities: - Covid 19 pandemic incur lots of inequalities in learning opportunities for students. For online learning, there is requirement of digital infrastructure, specifically mobile, tablet, laptop, 4G or 5G supported mobile networks etc. In poor and developing countries, these infrastructural aids can't be affordable for entire population. Due to that approximately more than half of the population in India cannot afford expensive digital devices and costly data plans. (World Economic Forum, 2020).

Impact on Practical Studies and Training: - Medical, clinical and various other discipline of study require practical, laboratory research and internship to get practical training and exposure to the real world situations. During covid time, students of above disciplines face lots of difficulties related to their practical study and internship. In certain field of study, it is not possible to teach in digital mode. This will demoralize the students of particular discipline.

Impact on Wellness: - Transformation from face to face learning to digital learning adversely affected on physical, mental and emotional health of students. Teachers and parents were worried about adverse impact of screen based learning on their eyes, ears and brain. There must be a balance between screen activity and exposure to natural environment. Digital learning reduces physical movement and continuing hours on screen. This might cause obesity, back pain, sleeping disorder, eye problems, and headache and hamper creativity.

Impact on Performance of Students: - Online learning creates adverse impact of overall performance and accomplishments of students. According to Various Researches and studies, in online sessions, chances of

cheating during exams are very high, due to Lack of Supervision. In most of the cases it is found that an average student who is consistently securing A grade, secured B grade in online learning environment. In traditional classroom, students learnt with their fellow students and there would be a feeling of competition among them particularly in scoring highest marks. This is totally lacking in digital learning. This impact might be different person to person.

Impact on Incompetent Student:- Traditional method of class room teaching cannot be replaced by digital learning. Online teaching model is much difficult for the students who are not much competent. In online teaching, the incompetent student might be distract and lose enthusiasm for learning. They might not clear their doubts easily as they can in face to face learning.

CHALLENGES FACED BY TEACHERS AND ACADEMIC INSTITUTIONS

Emergence of Online Based Content Delivery:- Many educational institutions including schools, colleges urgently shifted from traditional face to face classroom teaching to online learning, even though they are not read and well prepared for that. Sudden transformation to online teaching pedagogy creates challenges for teachers and students. Need arises to adopt student centric learning methods, individual and group interactions. Online teaching incurs possibility of student's distractions and teachers lose their command over class. It leads prospective need to develop innovative and creative teaching pedagogy. Even sometimes questions arise against higher education institutions that are they really prepared for digital learning? It is challenging for teachers to keep concentration on students, and reduce mishandling of technology.

Network availability and infrastructure in online learning: - Urgent shifting of traditional learning into online learning was not normal for teachers and students too. Three pillars are inevitable in online learning that is students, teacher and technological infrastructure. Including basic technology, there is strong requirement of good quality network and availability of computers. Any disturbances in technological infrastructure hamper contact and learning of students and teachers.

Teachers Skill and Capabilities: - Digital learning prospects incur challenges for teachers to keep concentration and involvement of student in learning. In online learning, teacher's skill and capabilities are much required in engaging students in learning by using different teaching methodology and interactive sessions. Teachers use methods like cross questions, discussion, debates, close ended questionnaire for assessment of their conceptual clarity regarding particular topic.

Discipline of Study: - Certain discipline of study includes practical learning, require laboratory, different tools and equipments create negative impact on teaching and learning pedagogy. Online learning cannot replace traditional and practical face to face learning in the field of medical, veterinary, agriculture, art, music etc.

Incapability in Accepting Change:- It is not necessary that everyone can immediately accept and comfortable with change of teaching and learning methods. Even experienced teachers might feel uncomfortable in using technological means and sometimes they feel that they might be in dark. It will be difficult for teachers also to deliver lecture when they are not watching their students. It would be difficult for students also to adjust with this new way of learning. Student might feel monotony because they do not get environment of classroom and study in isolation might feel them demoralize.

SOURCES OF ONLINE TEACHING AND EDUCATION IN INDIA DURING OCCURRENCE OF COVID

It has been said that necessity is the mother of invention. Pandemic can be seen as catalyst for academic institutions to explore technological innovation. There were various online learning platforms initiated by Indian government and private entities too.

□ Government Initiatives [14],[17]

Diksha Portal provides digital learning content for students, teachers and parents. It contains varieties of book in multiple languages for 1st to 12th standard students, created by teachers under the guidance of CBSE and NCERT. Users can download this app from play store. (Source: <https://diksha.gov.in> or <https://seshaqun.gov.in/shaqun>)

E-Pathshala is an application developed by NCERT serving e- learning content for CBSE class 1 to 12 students. Varieties of books, audios and videos are available in multiple languages. (Source: <https://epathshala.nic.in> or <https://epathshala.gov.in>)

National Repository of Open Educational Resources (NROER) is a web portal providing e learning content for class 1 to 12 students in different languages. (Source:

<https://nroer.gov.in/welcome>)

Swayam is also a national level online learning platform 1900 courses including class 9 to 12 and under graduate and post graduate programmes. It includes courses of engineering, law, management, social sciences and humanities. It is combined with traditional education by providing facility of credit transfer to the students. (Source: <https://swayam.gov.in>)

Swayam Prabha has introduced 32 TV channels disseminate e- learning content across the country using Set Top Box and Antenna. These channels cover school as well as higher education. (Source: <https://swayamprabha.gov.in>)

e-PG Pathshala is also e learning platform providing learning sources for post graduate students of each and every discipline. (Source: <https://epgp.inflibnet.ac.in>)

Manodarpan introduced for psychological support including activities for mental and emotional wellbeing of students, teachers and parents during pandemic time. (Source: <https://Manodarpan.education.gov.in>)

e-ShodhSindhu provide access to e- journals, e- books and bibliographic and accurate database to educational institutions and researchers. (Source: <https://ess.inflibnet.ac.in>)

Shodhganga provides platform to researchers to deposit their PhD thesis and make it available to entire scholarly researcher community. (Source: <https://shodhganga.inflibnet.ac.in>)

VIDWAN is maintaining database of researchers, scientists and faculty members working in leading academic institutions and research institutions in India. (Source: <https://vidwan.inflibnet.ac.in>)

□ Private Initiatives ^{[15],[17]}

Zoom:- It is an application for video conferencing. It is easy to install and user friendly application. It can be used from desktop, mobile, laptop and tablets. Zoom allow 100 interactive participants for 40 minutes audio video conference. Zoom allow 1000 view only participants. This application give freedom to every user to generate unique meeting ID. It provides facilities of recording, cloud storage in paid plan, chat room for group or individual conversation, host can control through mute / unmute, white board etc. zoom application became popular during pandemic time. ²¹

Google Classroom:- It is an application designed for teachers and students of higher education. It provides strong connection between teachers and students. Through this application, Teacher can create class, add assignments, video, images, PDF, Google documents, Google forms in a few clicks. Teacher can add homework and pay attention of each Students performance.

Google Meet:- It is a popular platform for video conferencing. It creates video conferencing for 250 people. It is also user friendly. It's most important feature is host can share their screen, presentation, documents and files.

Microsoft Teams:- It can organize meeting with single person or team. It allows 10,000 participants to join meeting or webinar. It provides various features like desktop sharing, recording, live captions, chat functions etc.

Cisco Webex:- provides facilities like online meeting, team messaging, file sharing etc. it provides platform for small group meeting and large group meeting. It allows 100 participants at a time with not limit of time duration as compare to other video conferencing applications, which have limit on number of participants and time duration also.

POST COVID POSITIVE AND NEGATIVE IMPACT ON EDUCATION ^[18]

□ Positive Impact

- The hunger of self learning is boost up in students after covid time. Due to easy access of e learning contents, Students might like to visit online education portals to enhance their knowledge in different disciplines.
- Academic institutions maintained safe social distance and running in different shifts.
- Use of technology is increased in teaching and learning. More and more webinars, video conferencing are arranged.
- Teachers and students using E-mail, Whatsapp for quick interaction with each other.

- Artificial intelligence based tool are helpful to teachers in assessment and evaluation. It will generally reduce burden of academicians and they spare more time to develop qualitative and quantitative teaching skills.
- Due to protocol of social distancing and safety measures, demand for open and distance learning increases.
- After the occurrence of Covid, there is a trend for mixed learning, that is face to face traditional learning as well as screen based learning.
- Increase the use of e-learning material and increase digital awareness in public.
- Because of the use of technology, students and teachers can get wide exposure to share and grasp knowledge from fellow.

□ Negative Impact

- Post Covid, attendance of students in school and colleges decline due to habit of online learning. Some families may lose their job during covid time. Due to that they might not afford the expenditures to pay fees of school and colleges.
- Student movement at national and international level reduced due to closer of many universities and educational institutions due to Covid protocol and safety measures.
- Increased burden on academic institution because of running in different shifts to maintain social distance.
- Inequality increases among learners because some students can afford technological gadgets and data pack but some who may not afford, may be unable to access learning.
- Due to wide spread unemployment after pandemic, student and their parents face much difficulties, anxiety and stress regarding student loans.

NEW TEACHING PEDAGOGIES AFTER COVID [20]

Today's fast changing world has witnessed multiple changes in teaching and learning methodologies after occurrence of Covid 19 pandemic. Traditional learning follows face to face classroom teaching methods in which teacher and student face same physical environment and sometimes feel monotony. Digital learning gave new experience to teachers and students. Students and academic institutions face multiple pros and cons of digital learning. As a result, Blended learning method is widely accepted after occurrence of Covid. Blended learning is also known as Hybrid learning, which is combination of online as well as traditional learning. Hybrid learning offer teachers and students centred on line and off line teaching methods. [18]

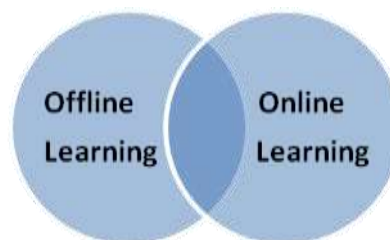


Figure 1:- Hybrid Learning

Offline teaching methods include lecture, demonstration, tutorials, coaching, storytelling, etc. Online teaching methods include case teaching, mentoring, debate, brainstorming, short films, short videos, quiz, flipped classroom, pre recorded video lectures etc.

SUGGESTIONS

Increasing use of technologies and e learning, enhance need of training for teachers and learners. Government should take initiatives to arrange training sessions for learners creating digital literacy and also take steps to provide free internet and digital gadgets to remove inequalities in learning opportunities. Need to maintain quality assurance and validation of various online courses offered by various elearning platforms. As per report of WHO, corona virus is not totally eradicated.[16] So academic institutions across India have to use blended model of education, in which they use traditional as well as digital learning tools. So in future, in case of any unforeseen situation education will be continuing without any disturbances.

CONCLUSION

Pandemic situation gives lessons to everyone to come out from comfort zone and adjust with demand of time and situation. Development of advanced technology, artificial intelligence and 5G make it possible to learn anytime anywhere. Biggest challenges are for poor and developing countries due to unavailability of digital equipment and infrastructure. But pandemic pave the way for further research in technologies and innovation. Furthermore, to adopt digital learning or mixture of digital and traditional learning in future, teachers and academic institutions must have to reshape their educational pedagogy. Post Pandemic, Introduction of New

Education Policy 2020 introduces major changes in education. New Education Policy 2020 emphasis on universal accessibility of quality education, affordability of education to society, accountability, multidisciplinary education, institutional sovereignty, promote research which leads to faster transformation of knowledge in to society.^[22]

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