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CHALLENGES OF ONLINE TEACHING-LEARNING DURING COVID-19 PANDEMIC – AN OVERVIEW

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ABSTRACT

The outbreak of Covid-19 in the form of a pandemic and its subsequent lockdown has put enormous disruption in almost every aspect of human life while education is the highly affected one. Due to shut down of educational Institutions and social distancing norms, it was quite impossible to carry out teaching-learning in face-to-face mode and in physical classrooms. The only alternative with hand to retain academic continuity was the online education or the virtual classrooms. Many educational institutions smoothly switched to virtual teaching-learning while many of them experienced it as a challenging task so far. Many research studies have been conducted across the globe to portray the status of online education during Covid-19 pandemic and have shown its good, bad and ugly facets from different dimensions. The present study aimed to provide a comprehensive overview of the research studies those identified the major challenges of online teaching-learning and to suggest a way forward in overcoming it.



KEYWORDS : *Online Teaching-Learning, Covid-19 pandemic.*

INTRODUCTION

Beginning from e-mail to e-education, human race has witnessed many evolutions as well as revolutions in the field of technology. Today's e-learning or online learning started in 1990s with the advent of the Internet and World Wide Web and reached individuals in remote locations or who want the convenience of eliminating travel time (Palvia et.al, 2018). With the technological advancement online education has become more operational and economic for which educational institutions worldwide came forward to adapt these changes in their systemic reforms. Till the end of 1st decade of 21st century, advancement in information and communication technologies have changed the landscape of educational scenario and classroom management techniques. Teaching-Learning become more dynamic rather than unimodal with the inclusion of flipped classroom, blended learning, video lecture capture, media annotation tools and many more. In developing countries like India this online education facilities were only limited to higher education and private or public sector institutions only, however, government institutions especially Schools were far from its access.

But the sudden outbreak of covid-19 pandemic and its subsequent closure of all educational institutions including schools, colleges, training institutions, universities etc. to follow social distancing

norms left no scope of conducting classroom teaching in face-to-face mode. Rather, to fight with this unavoidable natural disaster, almost in all sectors of education, online teaching-learning has been preferred and encouraged so as to maintain continuity of learning or not to allow learning gap or fear of losing their academic year in students during lockdown period. This transition of approach from physical to digital has become an educational emergence and need of the hour. This online education is no more be an option but a necessity in this pandemic situation. This alternative mode of online education that all have compelled to adopt as no other mode was found feasible during this pandemic is itself a big challenge for teachers as well as learners because both were not prepared for it. This overnight shift in teaching-learning paradigm though encouraged personalized learning but put a lot of complex issues related to technological adoption and adaption. An online survey reported that- "while children face issues in accessing education digitally, teachers face issues in delivering education through digital mediums. A staggering 84 percent of teachers reported facing challenges in delivering education digitally with close to half the teachers facing issues related to the internet, both signal issues and data expenses and two out of every five teachers lack the necessary devices to deliver education digitally". The present article conveys a comprehensive analysis of the studies that identified the challenges of online teaching learning during Covid-19 pandemic under the following two broad headings.

CHALLENGES RELATED TO THE TEACHER-

In a study, **Mishra, Gupta & Shree (2020)** portrayed online teaching-learning modes adopted by the Mizoram University and found that the online classes are problematic for teachers in certain subjects where the content is abstract and for concepts that need real face to face interaction for complete understanding and also stated that online interaction is detrimental to the health of the eyes and general body health too.

Dhawan (2020) analyzed that direct communication between the learner and the educator is lost in online mode. The difficulties and problems associated with modern technology range from downloading errors, issues with installation, login problems, problems with audio and video, and so on. Inadequate compatibility between the design of the technology and component of psychology required by the learning process and inadequate customization of learning processes were obstructing the teaching process and creates an imbalance. Personal attention is also a huge issue facing online learning. Students want two-way interaction which sometimes gets difficult to implement.

Chakraborty et.al (2020) reported that the discussions and collaborative activities that occur in a physical classroom are difficult to replicate on an online platform. Professors are accustomed to teach in physical classrooms and most of them had no experience of teaching online before this pandemic. But they tried to adjust to online teaching, learnt new techniques and improve their online teaching skills than in the beginning. The study suggests occasional peer-to-peer discussion on tools and techniques for online education by professors for improvement in online teaching skills and designing innovative tools and techniques for students' assessment.

Rosalina, et.al (2020) highlighted the challenges in the implementation of online learning in the pandemic era are: teacher's competency to use technology, teacher's strategy to conduct effective online learning activities, supporting facilitation, and the creativity of teachers as the main role in online learning activities. Teachers do conduct quizzes or exercises online to get a student's achievement but can't control the students. As, when the students do the task, test, or exercise in their home, the teacher couldn't see if it is done by themselves or maybe by the help of their parents, brother, or sister. So, teachers couldn't know students' real achievement, whether it is based on their ability or not.

Joshi, Vinay & Bhaskar (2020) revealed that higher education institutions (HEIs) of India have taken many initiatives in this pandemic situation for imparting education. But these initiatives have not been very successful from the teacher's perspective. Teachers faced may issue in online teaching such as lack of technical facilities, family interruption, lack of training, lack of clarity & direction, lack of technical knowledge.

Sareen & Nangia (2020) surveyed that about 82% of the teachers are taking online classes for the first time and the major challenges faced by them in conducting online classes are: lack of appropriate materials and resources, technical problems, Lack of in service training, difficulty in assembling all the students for the class, lack of cooperation from the parents, lack of internet facilities to the students, difficulty to follow up the learning of students. In spite of having highly positive and favourable attitude towards on line teaching, lack of efficacy and training in online mode of teaching compelled them to feel that they can teach better in traditional teaching.

The pedagogical challenges are principally associated with teachers' and the lack of structured content versus the abundance of online resources and teachers' lack of social and cognitive presence (the ability to construct meaning through sustained communication within a community of inquiry) (**Ferri, et.al, 2020**).

Saminathan (2020) studied the Teacher education specially B.Ed faculties and found that many educators are grappling with technological difficulties which are inevitable and cause stress. If there are any technical mistakes in the middle of the live session or interacting with students, they become powerless.

Karyala & Kamat (2020) reported that teachers are not well-versed with creating digital content, and conveying it effectively online. A sudden expectation from them to upgrade, and from students to adapt, is unfair. Body language and eye contact, which are important cues for the teacher, are difficult to perceive in an online class as they do not receive continual feedback in the form of students' reactions during online sessions, which reduces the effectiveness of teaching.

In a study, **Gurung (2021)** identified the challenges faced by teachers in conducting online classes and found that maximum numbers of respondents are conducting online classes for the first time in their career of teaching due to this Covid-19 pandemic. They are ready to learn new technology and methodology of the teaching and using Zoom, Google meet, Whatsapp, Google classroom for online teaching. The major challenges the teachers were facing were reaching the students in the remote areas and teaching numerical subjects. However other challenges they have been experiencing includes, difficult to motivate students, challenges to keep tracking of student's progress, problem of electricity / internet connectivity, lack of technical /Software knowledge, requirement of more time for preparing course content, lack of motivation in online learner, difficult to monitoring students' discipline. Even after facing all the challenges majority of the Teachers were satisfied with online teaching and ready to face many challenges to make learning feasible for the students.

CHALLENGES RELATED TO THE LEARNERS-

Mishra, Gupta & Shree (2020) identified that students were facing specific problems like connectivity and video issues due to the remoteness of their location and could not compromise the quantum of time required for machine learning. Since students were returned to their home town for located at remote rural setups without 4G internet connectivity or broadband services and interrupted power supply, there were compatibility issues with regard to two-way interaction.

Chakraborty et.al (2020) conducted a survey on undergraduate students in an Indian university about their opinion on different aspects of online education during the ongoing pandemic. The students responded that they learn better in physical classrooms (65.9%) and by attending MOOCs (39.9%) than through online education. The students also felt that the professors have improved their online teaching skills since the beginning of the pandemic (68.1%) and online education is useful right now (77.9%). The students though appreciated the software and online study materials being used to support online education but remarked online education is stressful and affecting their health and social life. It was also observed that the students do not prefer showing their faces during lectures because they are reluctant to actively participate in the class. There are many homes where there are a limited number of digital devices and more people need to use them simultaneously. This is a new form of digital divide. Periodic assessment of students is suggested for self reflection of students on their learning and to keep the teaching-learning process on the right track.

Dhawan (2020) identified that the flexibility in terms of time and space creates students' non-serious behavior and though students are varying in degrees of their capabilities and confidence level, some of them feel uncomfortable while learning online that leads to increase in frustration and confusion. Sometimes student finds online teaching to be boring and un-engaging. Online learning has so much of time and flexibility that students never find time to do it. The learning process cannot reach its full potential until students practice what they learn. Sometimes, online content is all theoretical and does not let students practice and learn effectively.

Khanna, et al (2020) remarked that the internet issue and lack of the knowledge to use and resolve the problems related to technology is creating a void among users.

Ferri, et.al (2020) considered the challenges are mainly related to the unreliability of Internet connections and many students' lack of necessary electronic devices. Learners' lack of digital skills and learners' lack of interactivity and motivation poses challenges on the part of learners.

Karyala & Kamat (2020) also reported that because of the wide geographic and cultural diversity, India suffers from a huge socio-economic divide. So, only a small part of the Indian population has access to online education right now. Interrupted power supply, weak or non-existent internet connectivity and unaffordability to buy necessary devices are major concerns. To deal with internet connectivity and device availability issues, 'classes' in many places are happening via sharing of videos by teachers over WhatsApp or YouTube, so that students can watch them at their convenience. This too comes with difficulties in understanding the lessons and promotes rote learning. It is a frustrating experience to engage students of lower classes in online mode.

Barrot et.al (2021) revealed that the online learning challenges of college students varied in terms of type and extent. Their greatest challenge was linked to their learning environment at home, while their least challenge was technological literacy and competency. The greatest challenge that students experienced related to the learning environment were particularly found as distractions at home, limitations in completing the requirements for certain subjects, and difficulties in selecting the learning areas and study schedule. The least challenge was on technological literacy and competency, particularly on knowledge and training in the use of technology, technological intimidation, and resistance to learning technologies. Also the COVID-19 pandemic had impact on the quality of the learning experience and students' mental health. The adverse impact on quality of teaching and learning was due to the lack of preparation for the transition to online platforms, limited infrastructure, and poor Internet service. The anxiety and mental health issues, boredom, sadness, and isolation that students experienced had adversely impacted the way they learn, completing their tasks/activities and their motivation to continue studying. The pandemic also aggravated the financial difficulties experienced by some students, which is mainly due to the lack of funding for their online classes as a result of their parents' unemployment and the high cost of Internet data. The study also concerned that the lack of face-to-face interaction with classmates had a detrimental effect on learning and socialization skills, while restrictions in mobility limited their learning experiences.

Naik, Deshpande, Shivananda, Ajey, & Patel, (2021) conducted a study to analyze the efficacy of online teaching and learning method compared to traditional teaching method and the collected responses confirmed that the traditional chalk and talk methodology is often better than online sessions. This study analyzed that lack of facilities; infrastructure, technical tools and the internet access are the major drawback for conducting online sessions. Irrespective of different courses and degree of students they feel that the traditional teaching creates more interest and can clear doubts through interactions. Though, current generation students are more adapted to advanced technologies, but still, they are keen to learn through traditional method. This might be due to lack of high-speed internet access, limited network data per day, power supply and technological gadgets (laptops, android sets, micro-phones and so on). However, 90% among the students those are from urban areas having sufficient technical tools and facilities preferred online classes.

Saminathan (2020) found that the B.Ed students fail to catch up the online classes for slow internet connectivity. Lack of computer education and self motivation regarding this, compatibility problems (with operating systems, browsers or smartphones) that arise sometimes, unable to

adapt to computer-based learning due to the sudden transition are the major challenges for the online learners.

SOCIAL CHALLENGES:

Ferri, et.al (2020) identified that the social challenges are mainly related to the lack of human interaction between teachers and students as well as among the students, the lack of physical spaces at home to receive lessons and the lack of support of parents who are frequently working remotely in the same spaces.

Khanna, et al (2020) also found that lack of effective communication among Teachers and parents to look after the discipline of the students by taking the help of the technology creates problem to keep a track of the online activity.

Karyala & Kamat (2020) highlighted that science and technology programs often include hands-on laboratory sessions, dissertation projects and field trips to complement theoretical studies. This aspect of learning is severely limited in online education. However, education is not just about subject knowledge but also about developing social skills and sportsmanship among the students, which is built over years. Relying solely on online education hinders the holistic development of children and many may underperform later in their professional and personal lives.

Saminathan (2020) described that owing to the lack of human interaction, the absence of a teacher and an inability to discuss it with their peers, students may often get upset. Once they encounter difficulties in online learning, students start losing hope. Disturbances at home, lack of productive communicational skills through online classes affect their social wellbeing.

DISCUSSION:

The above studies reflect that the sudden transition from physical to digital mode and text to hypertext content due to pandemic situation has drastically changed the educational scenario. At the same time, it has come up with the challenges for Teachers such as adaptability to new form of teaching, lack of technical/software knowledge regarding adoption and use of the desired technology, software and internet connectivity issues and lack of knowledge to resolve these issues, issues related to interrupted power supply, lack of effective communication with the students, improper way of learning assessment, family disturbances, time management for preparation of online content and management of students' discipline online.

The shifting of learning from face-to-face to online mode through digital devices is also a challenge for the online learners. The problem of adapting to an online learning environment immediately after traditional classroom learning requires a positive mindset. Major challenges among all are the problem of slow internet connectivity especially in case of students residing in remote areas which hinders their access to online lectures or to go online, environmental disturbances at home, lack of knowledge of operating devices and resolving technical issues, compatibility with the digital technologies and lack of self-motivation in adopting those, loss of face-to-face interaction, limited infrastructure and limited digital devices creates digital divide among learners that sometimes lead to frustration and loss hope also.

However, online learning due to covid-19 pandemic has also posed social challenges such as lack of teacher and student communication, lack of interaction among students', lack of parental support to students in case of parents frequently busy in working, lack of communication among teachers and parents of their students for sharing progress of study and problems related to attending online classes of their child.

SUGGESTIONS AND CONCLUSION:

This Covid-19 pandemic has left no way rather than a widespread adoption of online education. Above all the quality of online learning is a real challenge. There is no clear stipulation by the government in their educational policies about online learning. There is a lack of standards for quality, quality control, development of e-resources, and e-content delivery. However, we should not merely

focus on the problems attached with the online teaching during this pandemic time, rather we should think about enhancing the quality of virtual classes that help us in such emergencies in future or to sort out problems of present so that everybody will enjoy the benefits of quality education through online.

Online education can be better personalized by minimize the class size and dividing it into section by taking homogeneous background of the students into consideration for a particular section. In this way, individual attention and interaction can be possible which can eliminate the boredom and frustration arising from long span online lectures addressing massive class. Conducting regular assessments is also a way out to track students learning activities.

Government needs to invest a considerable amount in this sector for providing the digital devices and equipments for educational institutions, maintaining the equipments, providing training to the human resources regarding its proper use and developing the online content. Therefore, an efficient educational system needs to be set up in the country for strengthening quality online education even after the pandemic situation is over.

In this pandemic time, ensuring digital equity is crucial. The major challenge is that all the teachers and students have access to all digital devices, internet, and Wi-Fi. Unavailability of proper digital tools, no internet connections, or iffy Wi-Fi connections are the major cause of losing learning opportunities in case of many students. Therefore, efforts should be taken by institutions to ensure that every student and faculty have the access to the required resources and also all the educational apps work on mobile phones as well, in case students do not have laptops which may reduce the possibility of digital divide. Undauntedly, the governments must ensure the availability of reliable communication tools, high quality digital academic experience, and promote technology-enabled learning for students to bridge the disparities originated in the education system before and after COVID-19 catastrophe which is also inevitably necessitated for uninterrupted learning.

The curriculum must be designed accordingly that would compatible for online lesson delivery. Students and teachers across the globe need to practice e-learning more as they have been stucked within the formal learning for a longer period. The Corona Virus outbreak is the chance to make out the best from the current situation. A lot of tools are available, teachers are required to choose the best tool and implement it to impart education to their students. A step-by-step guide can be prepared by academic institutions that can guide the teachers and students on how to access and use various e-learning tools and how to cover major curriculum content via these technologies thereby reducing the digital illiteracy. Teachers can present the curriculum in various formats, that is, they can use videos, audios, and texts. It is beneficial if educators complement their lectures with video chats, virtual meetings, and so on to get immediate feedback and maintain a personal connection with the students. Government needs to include special training on online teaching under teacher education curriculum for preparing trainee teachers to handle future digital classrooms and to manage the online classes effectively.

To deal with the problems of internet connectivity, India's prime minister have launched PM e-vidya program as 'one nation, one digital platform' in which pre-recorded sessions aired on the television (e.g., Swayam Prabha DTH channels) and radio (audio lessons, through All India Radio), so that they do cater to a wider student population that cannot avail live online classes.

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