

Technology - the Bridge between Students and Teachers in COVID-19 pandemic

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Abstract: Globally, the specific social, economical, educational sectors and industries are captured in a series of sectoral pause due to Covid-19 pandemic. The standstill of educational sector may lead to loss of development qualities and values in students. But using technology this gap can be filled by implementing technological methods and practices in education sector. The research primarily focuses on how the students and teachers are mastering the technology by implementing several tools and techniques, how the positive side of Coronavirus is leading traditional education system into technologically advanced system, in what terms the technology is used in virtual classroom, how the teachers are accepting the change by applying certain methods and practices to make virtual classroom interactive. Secondly, this focuses on how the use of technology can resume the world and gives knowledge of the world around us and changes it into something better as education incorporates values, ethics, emotional maturity and a sense of civics on individual level and societal improvement, how the implementation of Virtual classroom has become more integral part in education sector by playing key role in bridging the gap in education.

Key Words: technology, traditional education system, virtual classroom, virtual learning, E-devices, technologically advanced system.

1. INTRODUCTION:

CORONAVIRUS : The recent out break of coronavirus is considered to occurred in a market for illegal wildlife in the central Chinese city of Wuhan. The coronavirus is a family of viruses that can lead to illnesses in humans including common cold and more severe forms like severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). Being variety of viruses, there is no particular vaccine invented that can cure it. Scientists have noted to either bats or snakes as likely causes.

The World Health Organization(WHO) supports basic hygiene such as regularly washing hands with soap and water and covering mouth when sneezing or coughing. keeping "social distancing" between people - at least 1.8 meters (six feet) - if they are coughing and sneezing, and avoid touching face, eyes and mouth with unclean hands to stop it spreading further.

TECHNOLOGY : Technology in education is the combined use of Electronic devices (E-devices) such as computer hardware, software tools and techniques used to increase impact of teaching methods and improve learning outcomes to simplify virtual learning. Universities, Government schools and colleges, high schools, primary schools come up with a solution of implementing virtual classroom for students. Technology is assisting education sector to bring students, teachers and technical means together in virtual way.

1.1. Impact of Coronavirus on Education System –

- As of 31st March, 185 countries around the globe have announced the shutdown of schools and universities for indefinite period of time as a safety measure. The COVID-19 pandemic and subsequent lockdown have not only influence the lives of people, but also brought the education sector to a pause. But this breakthrough is actually leading the traditional education with an online mode of system as this has lead the learning-teaching approach to a virtual innovative classroom approach.
- Teaching is executed remotely on digital platform as teaching itself involve the learning of something new, get introduce to the skills, using skill to find creative and innovative solutions to the specific problem statement. Various methods and technological practices are being experimented and tested by teachers, students and educational institutions in this crisis to reduce the loss of learning outcomes, mainly curricular studies.
- This breakthrough is leading the traditional system to learner-focused education system as students can connect with teachers on flexible timing while there is no need to travel distances to attend lectures, today's generation is getting used to with concept of online classes.

1.2. The Adoption of Virtual Classroom –

- The adoption of virtual learning in education system is transforming the *traditional education system* into *technologically advanced virtual system* and the reason is in a traditional way, a teacher enters a classroom, deliver lecture for about 40 minutes, and leaves when the lecture finish. But today, technology is the bridge between teachers and students. As students can be in constant touch with teachers with the help of virtual classes conducted through platforms like Skype, Zoom, google hangouts, google classroom etc.
- This practice is saving an instructional delivery time during lecture, assisting in exploratory methods of learning and leading basic physical interaction into two-way learning approach. Unlike regular ways, the students in online learning are not under any stress rather they can learn under flexible ways and can leads to self-progression learning experiences. while the students and teachers have to follow the constraint of social distancing, technology is helping to reduce this constraint with the help of so many digital and online initiatives and tools.
- Virtual Classroom allow students to connect from any internet enabled E-device such as Mobile, Laptop, tablet, etc. Technology allows the teachers to create multimedia contents using text, image, audio, video which can be practical approach. Students can have the access to this study material from different locations.
- Both the students and teachers are finding it interesting because it is also helping to sharpen their digital skill.

1.3. In what term the Technology is used in Education Sector ?

- The use of technology is increasing in terms of Internet usage, the use of Electronic devices to connect virtually via online platform, use of online resources to teach, taking help of related softwares and applications for clarifying practical knowledge and sharing study material via tools. Technology is managing technological processes and educational resources to help the students to learn via software applications virtually.

| Technological terms | Examples |
|-----------------------------|---|
| <i>E-devices</i> | smartphones, tablets, laptops, personal computers, iPads, etc |
| <i>Digital platforms</i> | Googlemeet, Microsoft Teams, Zoom, Adobe Connect, google hangouts, Electa Live, LearnCube, Newrow Smart, etc. |
| <i>Software/Application</i> | Google classroom, TalentLMS, Thinkific, Schoology, etc |
| <i>Online resouces</i> | academic websites, Google Slides, Practical-related application, YouTube video, augmented reality, social networking, online teaching, class blogs and wikis audio files, TEDed and Minecraft Education ,etc. |
| <i>Online activities</i> | assignment, quiz, online games, skill-development practices, digital storytelling, group discussion activities, etc |
| <i>Network connection</i> | Internet, Ethernet, Wi-fi, Physical connection |

Table 1.1 : Technological Terms & Examples

- The education sector is taking ultimate use of the lockdown period to register for several courses available online on digital platform as Swatam, Coursera, edX and many more. Students can access the study material, the related notes, content and free books through various online platforms like ugcmoocs.inflibnet.ac.in, epgp.inflibnet.ac.in, swayamprabha.gov.in, youtube.com, etc.
- Virtual learning includes collaboration with features to share and discuss the ideas, topics, activities between students.

2. LITERATURE REVIEW:

2.1 A research paper titled “A Study of the Effects of Digital Learning on Learning Motivation and Learning Outcome” by Ming-Hung Lin, Huang-Cheng Chen, Kuang-Sheng Liu from Tung-Fang Design Institute, TAIWAN reveals that students agree with the assistance of digital learning in the subject learning and suggest that Designing teaching activity for digital learning and flexibly applying technology tools are the key issues for current information technology integrated education.

2.2 “Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update” suggests the ways of **learning** as - Engaging and Empowering Learning through Technology, **Teaching**-Teaching With Technology, Roles and Practices of Educators in Technology-Supported Learning, Leadership-Creating a Culture and Conditions for Innovation and Change.

2.3 A research paper titled **“TECHNOLOGY IN TEACHING AND LEARNING”** by Abhipriya Roy, English Department, Christ University, Bangalore, India stresses on link between teaching and learning process. Technology opens doors to many more opportunities by linking the world together. Learners now have a virtual community of learners to discuss topics with, seek advice, or gain leadership skills by helping others. Interactive whiteboards for instance, are a simple but invaluable way for English learners to access helpful resources or lessons.

2.4 A research paper titled **“Impact of modern technology in education”** R. Raja, P. C. Nagasubramani, Department of Pedagogical Sciences, Tamilnadu Teachers Education University, Karapakkam, Chennai, Tamil Nadu, India Aimed at identifying positive and negative impact of technology in education by considering multiple factors like enhanced teaching and learning, globalization, no geographical limitations, declining writing skills, increasing incident of cheating, lack of focus,

3. OBJECTIVES OF THE RESEARCH:

- To find whether the virtual classrooms are scalable, accessible and effective or not
- To find is the virtual classroom is making the education sector technologically advanced
- To analyze how this is leading to expand use of digital platforms
- To know how the removal of space and time barriers in learning-focused system encouraging digital and smart classroom
- To find is virtual classroom can be freedom to study for students and making the study efficient
- To find if there is difference in learning outcome factor of students
- To find what teaching methods and technological practices are implemented by teachers to make virtual classroom interactive
- To realize why the virtual classrooms are being popular
- To find if this technological bridge can be seen as the positive thing happen during Coronavirus Pandemic
- To find is it giving students and teachers a worldwide exposure

3.1. HYPOTHESIS:

1. H₀ : The technological involvement in education sector is not making such a difference in learning outcomes and teaching methods.
2. H₁ : The technological involvement in education sector can give rise to effective learning outcomes and teaching methods.

4. METHOD:

4.1 Significance of the Study:

The research paper aims to identify whether the use of technology will increase learning outcomes and make improvement in teaching standard. Research methodology uses the proper research design to observe the technological involvement in education after COVID-19.

4.2 RESEARCH DESIGN:

To obtain the objectives of the research Descriptive and correlational research design has been used. Descriptive design has been used to understand the positive effect of shutdown of education sector due to Covid-19. To know the faculties considerations about online teaching and to differentiate factors between traditional teaching and online teaching correlational design has been used.

4.3 DATA COLLECTION:

Primary Data collection: Questionnaire Method

Secondary Data Collection:
Research papers
Website links
Observations
Documents and records
Reports from Publications.
Articles

5. CONCLUSION:

The time has come to adopt the technological involvement in education and its trendy offerings in order to transform education sector more efficient and resourceful through virtual classroom. Digital transformation can be seen as new policy in educational institutes.

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