

# A Paradigm Shift from Analog to Digital Mode of Teaching in advent of COVID-19 Pandemic

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## Abstract

The pandemic COVID-19 aroused globally by Mid- March 2020 affecting the normal life-style, has shown its major impact on education system all around the world. Impacting approximately 286 million students are at risk of falling behind due to closure of schools as a preventive measure. To continue the learning process many countries have adopted remote education programmes through various digital platforms. Different state governments have acquired various modes of online modules to bridge gap in learning process. This study focus on the initiatives launched by the Government of India to prepare teachers and students for online mode of instruction, Adaptability of teachers towards ICT, parents support and guidance, challenges encountered in digital instruction and the scenario of teaching –learning during pandemic.

**Keywords:** ICT (Information and Communication Technology), Government, Remote Learning, Digital Platform

## I. INTRODUCTION

The effect of Corona virus disease 2019-(COVID-19) was first identified in Wuhan, China in December 2019. Gradually the disease has spread worldwide leading to an ongoing pandemic. No one might have predicted that a virus like COVID-19 would roll out the life style of people around the world. This situation has created turmoil in every sector. The most afflicted is the Education system in India. A traditional classroom technique with face-to-face interaction is the prevalent mode of teaching-learning process in India. The teachers were well versed and trained with chalk and talk mode.

The nationwide lock down in India was declared on 24 March 2020 evening by the Government of India under Prime Minister Narendra Modi limiting the movement of the entire 1.38 billion population of India as a preventive measure. Initially it took some time to comprehend the scene and adopt the new normal life. Especially children faced turbulence as schools were abruptly closed and classes have been suspended for long time i.e hardly 6 months. This long run of school's closure and lock down period all around the world has created a state of tension in young minds. Children were compelled to stay at home for safety, with no or limited exposure to external environment. This made them gradually addict to television programmes, mobile games, deviating them from studies. Within the four walls bonded with family experienced a different state of life with parents and family members where bonding relationships were developed. The corona effect created phobia among them. Between the Unlock process allowed the functioning of emergency services, offices, essential commodities services, companies, schools and colleges. Several schools and colleges suspended face-to-face teaching and planned to resume classes using digital platform. There is trepidation of losing academic year 2020. So, there was a paradigm shift of traditional classroom to digital platforms. The exigency is to greet learners with creative and innovative techniques and implement an alternative mode to impart quality education with reformed assessment strategies. The COVID-19 pandemic has presumed us to lay foundation for introducing online learning

## II. DESCRIPTION

### Action of NCERT in implementing Online Education

The pandemic has compelled education system to move from traditional mode of approach to digital approach. During school closures, measures were taken by Ministry of Education and the National Council of Educational Research and Training (NCERT) has put forth measures to implement programmes to assist distance/ home based learning for children at National level and by State and Union Territory Governments the National Council of educational Research and training assigned with preparing and publishing text books, with modifications and reducing syllabus to meet the online plat form.

ICT Initiatives of NCERT includes various digital resources easily accessible by both Teachers and students, e-pathshala- a multi-lingual app with numerous resources consisting flip books, audios, videos, e- pubs etc. Easily access to laptop, desk top, tablets and smart phones. Diksha app providing PDF's of all subject text books with audio, video clips and interactive materials for both teachers and students. NISHTHA – Teacher training module to become more self-reliant and competitive teachers for upcoming digital generations. ICT- Curriculum to enhance ICT scheme exploring the educational aims for present curriculum. AR/VR app providing resources of augmented reality. The students can easily access to E-pathshala by installing the app from play store and could access to grade 1 -12 textbooks through app. NCERT and SCERT have conducted webinars for teachers at different levels to cope up with the current trends in education and assessment criteria. An alternative academic calendar (AAC) was designed for providing weekly lesson. To reach students with little or no facility of phones the NCERT also started telecasting two-hour long lessons, organized throughout the day for students in different grades, on its official Youtube and TV channels from Monday to Saturday. Students following this lesson s can call in for doubts. In view to this different state government planned telecasting lessons through TV channel specially meant for students. Pre-recorded videos were also uploaded in you-tube and Educational websites. There was a continuous monitoring with the state authorities regarding online education.

## INSTRUCTION THROUGH DIGITAL PLATFORM

The world-wide Education system came out with “Coaching in Crisis” through various online modes of instruction. “Education in emergencies” -Education is a lifeline for children in crises (UNICEF 2020). Educators employed digital platform as a mode of instruction to interact with students and deliver the content effectively making use of e- learning tools like Zoom Classroom, Google classroom, Microsoft Teams, Google meet, Cisco WebEx, Google forms, you tube videos, Screen recorders, Pre-recorded videos, interactive boards, activities, Quizzes etc. Various forums like Telegram, Messenger, Whatsapp and WeChat are explored for teaching and learning for the first time ever to continue education.

- E-learning tools have enabled the students to facilitate learning despite of closure of schools. Adapting to new technology by both educators and learners has transformed the ages old traditional method of teaching.
- Students, Teachers, Parents around the globe engaged productively to current trend of teaching techniques and assessment strategies.
- The online-mode has been a welcoming practice. Educators applied suitable mode of ICT (Information and Communication Technology) to deliver instruction. They shared the contents in soft copy using MS Word, PDF, PowerPoint, and Excel file, audio and video clips.
- The blended learning was adopted, followed the strategy of flipped classroom by providing learning resources such as articles, pre-recorded videos, you tube links, educational websites before the class.
- Online plat form was best used in most of the educational institutions enhancing logical and critical thinking, problem-solving and self-motivated learning.
- Most of the instructors developed their own approaches and modes to teach effectively for different age groups of learners according to their mental ability.
- The instruction was made lively with interactive videos, white board, sharing e-content with creative ideas like planning online games, quiz, interactive worksheets related to content.

## CHALLENGES ENCOUNTERED

The digital platform was a puzzle for the teachers and learners. Instructors who were experts in book, chalk, talk and black board methods had to be trained to face the barriers of the current scenario and move towards online teaching. Every system endures merits and demerits.

### Merits and Demerits of Online Education

- Instructors have made the best use of resources with the support of Government initiatives through NCERT and SCERT.
- Learning materials, text books, PDF’s, related documents, videos, e-books, e-resources, e-contents were easily uploaded. Every learner was able to access.
- Monitoring of the teacher during virtual classes enabled the learner to focus on the content delivered.
- Teachers are facilitated with TV broadcast, videos uploaded in website by the government as a supportive material for extended learning.
- Lessons taught during online class can be recorded and made available to child at his own pace and flexibility.
- Learners have an advantage of attending classes from any location of their choice, providing accessibility of time.
- Parental support and guidance was appreciable in imparting education through online mode.
- Planning interactive games, puzzles, quiz programmes developed positivity and involvement of the child in a great extent.
- Celebrations of events in online-mode have made the student teacher relation much closure and interactive.
- Learners were self-motivated to solve the assignments and activities on their own with the support of pre-recorded videos, web-sites provided by SCERT and NCERT.
- Online learning reduced the financial cost as compared with physical learning. The finance spent on transportation, uniforms, supporting materials, etc were reduced promoting to use limited sources in a productive way.
- The online instruction saved children from receiving any type of infection. Each and every child has a direct interaction with the instructor in discussions, doubt clarification. Children connected with their friends digitally.
- Students are made to learn the use of Technology in a fruitful way.
- Though Government has provided classes through broadcasting media, TV and Radio, most of the learners in rural India had not encountered with it. Reasons may be poor network connectivity, weak signal strength and remote areas.
- Unfortunately, this dreadful virus has taken away millions of lives across the country leaving kids in helpless situation directing decline in education seekers especially children with poverty, economically backward could not afford online education.
- Dearth of educated parents could not provide proper guidance for the young learners and not access to electronic gadgets as they are expensive.
- Long hours of screen time effected child vision and mental health. Fixing to a certain posture during classes also increased the risk of physical health and prone to obesity.
- Online education lacks human touch, arises technical issues, create distraction, fear of cheating and copying, develop boredom, limited space for class room activities, low or no interaction with fellow learners, Uncertainty in adopting new technology, high time to stay motivated and inadequate support system.

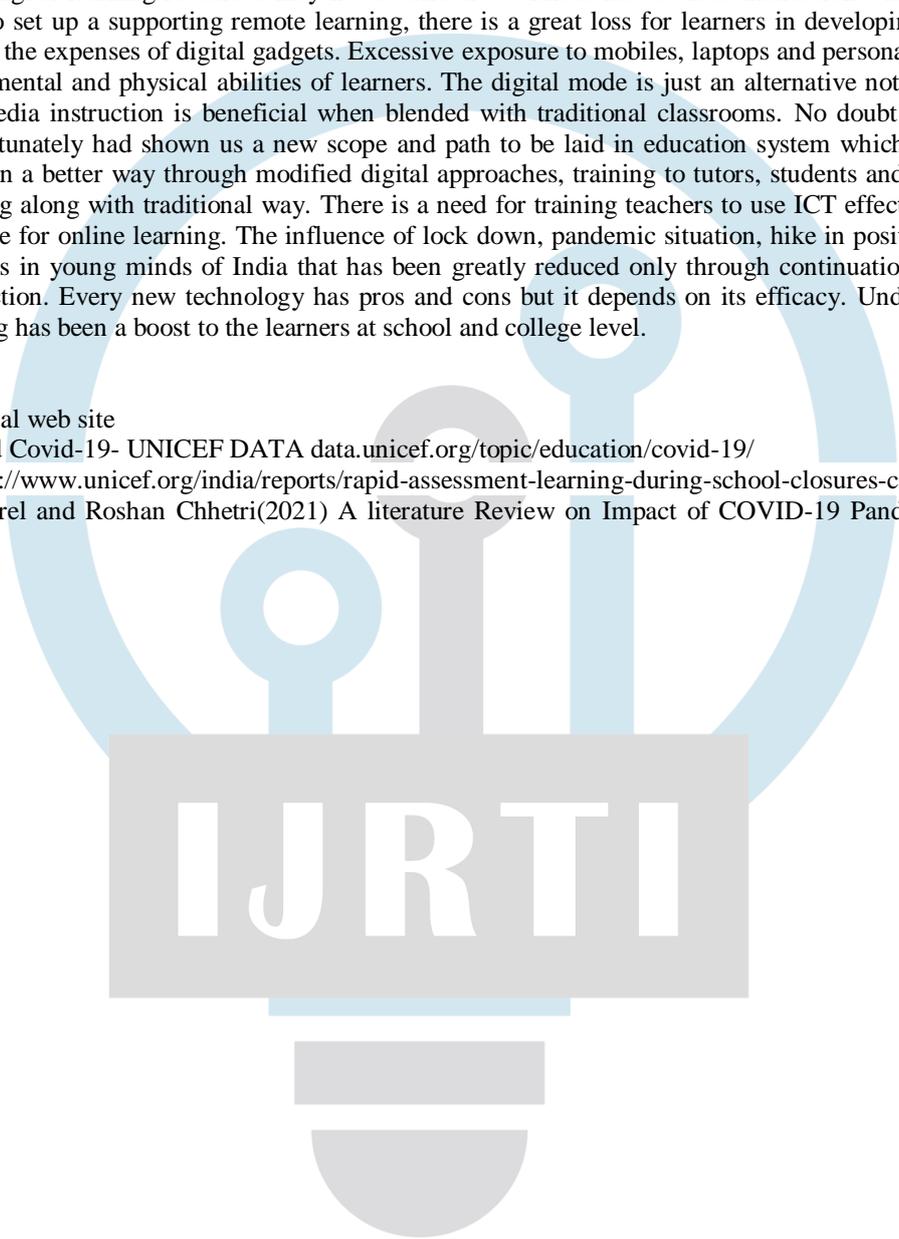
- Parental guidance and support is minimal in the case of uneducated parents and lacks the same if both parents are engaged with work from home.
- Some students have been looking after their affected family members could not attend classes regularly as timings were pre-fixed. Learning materials, videos and content shared may not be helpful as they could not manage time.
- An assessment criterion was arduous and stressful on the basis of digital platform for instructors, confusion and unanswered questions were raised on the conduction of examinations, re-schedule and cancellation of exams was very unreliable.

## CONCLUSION

A digital platform cannot be a replacement of traditional classroom. It lacks monitoring and Technical teacher's assistance, supporting materials, digital learning resources may not be effective without face-to face interaction with a teacher. Despite of ensuring best efforts to set up a supporting remote learning, there is a great loss for learners in developing countries like India, which could not afford the expenses of digital gadgets. Excessive exposure to mobiles, laptops and personal computers has shown devastating results in mental and physical abilities of learners. The digital mode is just an alternative not a real-time classroom. This type of online media instruction is beneficial when blended with traditional classrooms. No doubt the education crisis in pandemic situation fortunately had shown us a new scope and path to be laid in education system which could provide fruitful results if transformed in a better way through modified digital approaches, training to tutors, students and guiding them towards online mode of learning along with traditional way. There is a need for training teachers to use ICT effectively; Parental support is needed at every stage for online learning. The influence of lock down, pandemic situation, hike in positive cases has created a great turmoil and stress in young minds of India that has been greatly reduced only through continuation of education through online mode of instruction. Every new technology has pros and cons but it depends on its efficacy. Undoubtedly it is said that online mode of learning has been a boost to the learners at school and college level.

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A large, light blue watermark logo of a lightbulb is centered on the page. The bulb part is a circle with a vertical line through the center, and the base is a semi-circle. Inside the bulb, the letters 'IJRTI' are written in a bold, white, sans-serif font.

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