Research Paper   © 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -I) Journal

A Review of COVID-19 Impact on School Education in India

Sourav Choudhury,

Ph. D Research Scholar, Department of Education, Lovely Professional University, Phagwara, Email- souravchdhry@yahoo.com, Contact- 9836135503

ABSTRACT

Education is considered to be the fourth basic need after food, shelter and clothing. It is a key tool for social transformation. The Government of India executed the 'Right to Education Act' by providing free and compulsory education to children between 6 to 14 years of age. The sudden entry of COVID-19 global pandemic disrupted the Indian education system creating uncertainties, barriers in teaching –learning process. Change is inevitable in any sector or marketplace. COVID-19 brought massive changes in education sector in India. One side, it created volatilities, uncertainties, complexities and ambiguities in education sector in India. COVID-19 outbreak compelled more than 32 Crores children not to go to their respective schools, cancellation or review of board and other exams questioning the quality of education. On the other side, it also gave birth to innovative models. 'The Learning From Home' became the 'New Normal' in this context. The present study reviews the emerging trends, challenges and opportunities created for school education and analyzes its impact on various stakeholders in India in 2021. The lockdown series, technology, government initiatives, student-teacher perceptions and other factors are taken into account. The study is relevant and significant from sustainable education point of view. It is beneficial for the schools, students, teachers, parents, government authorities and policy makers in future to cope up with the changes.

Keywords: School Education, Change Management, Educational Transformation, COVID-19 Impact on Education, Indian Education System

----

Research Paper

I. Introduction

Education is the mean of social transformation. It empowers the individuals, communities, societies, organizations, industries, governments and economies to the great extents. Dr. Sarvapalli Radhakrishan underlined the due significance of school education stating that the future of India is not written outside the classrooms but within the classrooms themselves. The students are the future citizens of any country. It is imperative to provide quality, skill-oriented, knowledge-centered, value-based education meeting the future demands of the world. India has a golden opportunity to transform the increasing population into skilled manpower leading to attract foreign revenues in the form of human capital. However, the sudden entry of COVID-19 pandemic outbreak influenced the school education system in India on a large scale. The influence is visible in the forms of admissions, academic performances, teaching-learning processes, examinations and evaluation methods altogether. In addition, outcomes of online platforms are also taken into account to understand the effectiveness. On the other hand, it paved the ways to explore the new horizons in the world of education with the help of information and communication technology (ICT). The technology with the help of mobile apps, online portals, websites and other platforms could continue the flow of education and knowledge transfer activities. In short, there are pros and cons too. The present study analyzes the impact of COVID-19 on school education in India. It covers the various stakeholders such as the students, teachers, parents, school management, state and local governments who faced the series of challenges since April 2019 till date.

II.   Review of Literature

The United Nations Organizations has prepared Sustainable Development Vision 2030 in which 17 Sustainable Development Goals (SDGs) are identified. The governments of respective countries are encouraged to align their policies accordingly. Provision of quality and affordable education is one of the prime important goals considered (Abel, Mutandwa & Roux, 2018). The world economy has witnessed digital disruption and role of information and communication technology in coping with volatility, uncertainty, complexity and ambiguity factors. In addition, COVID-19 pandemic

outbreak restricts the growth due to series of phases and lockdown. In such global turmoil, a developing economy like India can concentrate on making an effective use of

ICT for survival, growth and sustainable development. It enables the governments, institutions, businesses to minimize the existing challenges and maximize the opportunities in terms of financial inclusion, innovation and digital infrastructure for India. ICT tools empower the stakeholders of education in adopting user-friendly technology for better and faster access to school education reaching to large population in less time with better accuracy, transparency, accountability etc.

The government of India has already initiative several campaigns such as Digital India, Skill India, Start-Up India to transform India as a manufacturing hub, knowledge hub, pool of talented workforce capitalizing the global opportunities (Sahyaja & Rao, 2018). However, it would remain dream without digital infrastructure, women empowerment, quality and skill-based education. The central government already introduced the 'New Education Policy 2020' in India. Massive Open Online Courses, Moodle, NPTEL, Google Classrooms/Meet, Zoom enable the institutions to continue teaching-learning during the pandemic as well. A primary school teacher, Mr. Ranjitsinh Disale from Maharashtra bagged 'The Global Teacher Award' worth US$ 1 Million for effective application of embedding QR Code in NCERT textbooks (India Today, 2020). It is an epitome how ICT can be used in education and integrated with Right To Education (RTE) brining thousands of drop-out students in the mainstream of society.

The Disaster Management Act, 2005 and various provisions of the Epidemics Diseases Act 1897 enforced governments (central, state, local) in India to for a series of lockdown shutting down the establishments including schools and colleges as well. Lack of digital infrastructure, poor internet connectivity, absence of smartphones, limited data, multiple users in family and monotonous teaching-learning found to be the major challenges during pandemic outbreak in India. According to Government of India Survey 2019, only 24% families have access to internet while in rural India only 4% families have access to online education (Deka & Anand-India Today, 2021).

In a report published by World Bank (2020) entitled, "South Asia Economic Focus, Fall 2020: Beaten or Broken? Informality and COVID-19", it is found that the temporary

closures of the schools in South Asia have resulted in keeping 391 million students away from school. It may have lifetime impact on the skills, knowledge, productivity of a generation of students. It is estimated that school closures have caused the future

losses up to US$ 440 Million (32.3 Lakh Crores INR). It created uncertainty in the field of education substantially. Likewise, more negative impact noticed for the GDPs in Asia and informal sectors were badly hit during the pandemic.

The Indian education system is revolutionized due to several reasons. The educational institutes across the country embraced the digital mode of education as a solution to fill the void left by classroom teaching. The terms such as 'e-learning', 'digital classroom' gained the momentum. The virtual mode of learning continued the knowledge transfer hassle-free. Naturally, the infrastructure, internet, data became major concerns. However, they were addressed slowly and steadily. The online platforms such as Zoom, Google Meet, Microsoft Teams, Citrix and others are widely used. Right from admission process to evaluation, the online platforms are used even today accommodating the wide number of students in meeting rooms. However, engagement, user-friendliness, attendance, interactivity are found to be major challenges for both teachers and students as well.

The global education network Quacquarelli Symonds (QS) stated that the Indian internet infrastructure is still far from ready to support the shift. Only 24 per cent households have access to the internet, according to a 2019 government survey. In rural India, the numbers are far lower, with only 4 per cent households having access. A 2018 NITI Aayog report revealed that 55,000 villages in India did not have mobile network coverage. A 2017-18 survey by the ministry of rural development found that more than 36 per cent of schools in India operated without electricity. The emphasis on technology-driven education is also alienating many children from the underprivileged sections, preventing them from continuing their studies. Even other stakeholders are struggling. Teachers are not always trained and equipped to transition to online teaching.

i. Need of Study:

According to UNICEF (2020), more than 90% schools were closed in India. It is observed that more than 1.5 million schools closed down due to the pandemic, affecting 286 million children from pre-primary to secondary levels. This adds to the 6 million girls and boys who were already out of school prior to Covid-19. This disruption in

education has severe economic implications too. The rise of EduTech firms in India indicates the growth potential of online learning for future. The trend of e-learning is likely to continue even after pandemic get over due to competitive advantages offered by educational technology. This paper aims to analyze the influence of COVID-19 on students, teachers and other stakeholders of school education. The factors which influenced the attitude, behaviour patterns, perceptions, experiences and overall meaningfulness of school education are the major components of study which makes it comprehensive. The study is significant from 'outcome-based education (OBE)' perspective as per New Education Policy 2020.

ii.. Research Problem

The present study has the following research questions:

- What are the emerging trends witnessed in school education system in India?
- What are the major challenges faced by various stakeholders of school education in India during COVID-19 outbreak?
- What are the opportunities created for school education during COVID-19 outbreak in India?
- How information and communication technology can bridge the demand-supply gap for sustainable education in India?

III. Research Objectives

- To examine the current scenario of Indian School Education system during COVID-19 pandemic outbreak
- To identify the major challenges faced by students and teachers of secondary school education in India
- To explore the opportunities and future prospects of secondary school education system in India

- To analyze the role of information and communication technology in improving the quality of secondary school education system in India

IV.   Research Methodology

The research method applied for the present study is the Systematic Literature Reviews (SLR). It is a method used to identify, evaluate, analyze and construe the relevant existing literature. The keywords such as "School Education", "COVID-19 Impact", "Online Education", "Information and Communication Technology (ICT)", "Innovation in Education", "Students / Teachers Perceptions" etc. are used to collect data in the form of research articles, working papers, industry reports, case studies etc. from reputable databases like World Bank, UNICEF, Govt. of India, Scopus, Science Direct, India Today, Google Scholar and other resources which are relevant and latest with respect to the topic of present study. There were thirty-three articles, working papers and case studies collected. However, after shortlisting, twenty research studies were reviewed in-depth relevant to topic and publications from 2019 to 2021.

V.   Discussion and Analysis

Table 1: Summary of Literature Reviewed based on Criteria				
Sr. No.	Author & Year of Publication	Title	Research Study	Topic Covered
1	Pokhrel, S. & Chhetri, R. (2021)	A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning	Research Paper	A study for Kerala State; Education in Emergency; Use of ICT- Flipped Classroom strategy; Self-directed learning; Challenging for educators and learners of Special Needs (Hearing/Visual Impairment, mobility disabilities); Economic, social and psychological repercussions on the life of students; Limitations for data packs; internet

				connectivity; LMSs- Elias, Moodle, Big-Blue-Button and Skype
2	United Nations (2020)	Policy brief: Education during COVID-19 and beyond.	International Report	Pandemic affected nearly 1.725 Billion learners from primary to higher education in 200+ countries of globe; 98.6% students population in the world; Home-schooling-Need of an hour
3	World Bank (2020)	Beaten or Broken? Informality and COVID-19	International Report	High-level influence of fiscal and financial shocks reduced overall spending, consumption; severe income losses for teachers and parents; lower human capital and labour productivity; impact on mental, physical health of students; low engagement ratio
4	Nguyen, T. & Others (2021)	Insights Into Students' Experiences and Perceptions of Remote Learning Methods: From the COVID-19 Pandemic to Best Practice for the Future)	Multi-National Students' Survey	Online survey of 10,563 responses from UK, USA, Netherland, Germany & Australia; Comparative study of Synchronous and Asynchronous Pedagogical Techniques; 86.1% students preferred in-person courses while 13.9 preferred online courses; Motivation, Engagement and Social interactions found better for in-person courses than online.
5	Shah, S. & Jani, T. (2020).	Online Education in India: Issues & Challenges	Research Paper	Major concerns in Online Education in India – Privacy, Security, Student Addictiveness, health hazards, distractions, integrity, only information; lack of values, skills and knowledge; limitations for evaluation

6	Dr. Chancal Suri (2021)	Challenges To Online Education: A Review	Review Paper	Key factors influencing online education- Communication gaps, technical barriers, missing interactions, anxiety and depression, Technophobia
7	Ravichand ran, P., & Shah, A. K. (2020)	Shadow pandemic: Domestic Violence and Child Abuse during the COVID-19 lockdown in India	Working Paper	Increased and unstructured time spent on online learning has exposed children to potentially harmful and violent content, greater risk of cyber-bullying, distractions, homesickness etc.
8	UNESCO. (2020).	COVID-19 Educational disruption and response	Internatio nal Report	Mobile learning, e-learning, multimedia tools, learning management system as a tool for teaching, learning, evaluation; Digital divide and social equity; excessive use of smartphone technology for school and higher education
9	Muthupras ad, T., Aiswarya, S., Aditya, K.S. & Jha, G. K. (2021).	Students' perception and preference for online education in India during COVID -19 pandemic	Research Paper	Online learning- good in crisis situation but not good all the time; sharing information but lacks interactions, motivations; need close watch by parents for child behaviour
10	Nguyen, T. (2015).	The effectiveness of online learning: Beyond no significant difference and future horizons	Research Paper	Online learning- A tool for flexible, accessible, affordable and scalable for vulnerable groups of society; virtual classrooms beyond rigid restrictions of time and distance
11	Awasthi, P. (2020, May 23)	Online classes turning out to be nightmare for teachers amid COVID-	Magazine Article	Teacher perceptions toward online classes- more challenges than opportunities; monotonous learning, lack of control, poor internet, data limits, evaluation concerns, negative impact on knowledge transfer,

		19 lockdown		changing platforms
12	Roper, A. R. (2007).	How students develop online learning skills?	Case Study	Adopting digital learning methods- observations, trial and errors, demonstrations, find-and-apply patterns, simulation exercises and user manuals
13	KPMG India & Google Inc. (May, 2017).	Online Education in India: 2021	Market Report	Qualitative (Focused Group Discussions) + Quantitative (online survey of 3600 participants in India); The online education market in India estimated to grow with CAGR of 44% with 9.5 Million user base; Serving supplementary to secondary education; Technological Innovation: Demand-supply ecosystem, anytime-anywhere-any device access; Blended learning model popular
14	OECD (November, 2020)	The Impact of COVID-19 on Student Equity and Inclusion: Supporting vulnerable students during school closures and school re-openings	Market Research	Developing strategies for continuous education- Support education of disadvantaged students, Ensure well-being, emotional needs of students; Govt. Initiatives- Distribution of learning devices in Chile, Slovenia, Italy, Greece, Portugal, Australia; Social/Medical/Diagnostic services with counselling for vulnerable students
15	Sun, A. & Chen, X. (2016).	Online Education and its effective practice: A Research Review	Review Paper	Integration of multimedia devices, customization, outcome-based education, use of technology content creation, teaching, evaluation etc., Blended learning, automation and embedded videos
16	Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A.	The difference between emergency remote teaching and online learning	Article	Migration education, Education in Emergencies, Social equity, Inclusive Growth and Sustainable Development

	(2020).			
17	Aboagye, J. A. Yawson, and K. N. Appiah (2020).	COVID-19 and E-Learning: the Challenges of Students in Tertiary Institutions	Research Paper	Students of tertiary education facing short, mid and long-term challenges such as school closures, traveling restrictions, lack of physical activities (sports, cultural events); communication gaps, rote learning, mobile addiction, mental health issues, uncertainties etc.
18	Sintema, E. J. (2020)	Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education	Case Study	Low interactions, less engagement, increase in scores; however, scope of application and overall quality of education through online mode is at risk; implications exist in terms of knowledge, skills and attitude required for STEM students
19	Bandura, A. (1997).	Self-efficacy: The Exercise of Control	Book	Self-directed learning, activities, handling life-like situations, collaborative projects, peer learning, emotional intelligence for better control of learners (concentration, involvement, motivation, retention and application of learning)
20	Smith, P.J., Murphy, K. L. & Mahoney, S. E. (2003).	Towards identifying factors underlying reading for online learning: An explorative study	Explorati ve Study	Factors influencing online learning- digital infrastructure, skilled instructors, number of users, technology / tools, cost, demographic features (age, subject, gender, region, target language etc.), course objectives and expected outcomes, innovative pedagogies and multimedia support

VI. Thematic Analysis:

COVID-19 Impact on-					
Students		**Teachers**		**School Education System**	
Positive	**Negative**	**Positive**	**Negative**	**Positive**	**Negative**
Continuous Education	Rote learning	Digital Content Creation	Limited knowledge of technology	Digital Disruption	Digital Divide
Social distancing compliance	Mental health hazards	Reutilization of content	Time-consuming	Innovation in Education	Demand-Supply Mismatch
Improvement in digital literacy	Mobile addiction	Multimedia support	Mental & Physical health challenges	Optimum Utilization of Resources	Poor Digital infrastructure
Flexibility (Learn From Home)	Less engagement /motivation/ interactions	Work From Home	Job insecurity, financial concern causing mental disturbances	Coping with Volatilities, Uncertainties, Complexities & Ambiguities (VUCA) factors	Lack of vision, corporate governance
Gradation & Promotion	Lack of skills, quality concern	Design and development of Learning System	Absence of technical expertise	Sustainable Education, Social Equity	Survival and Growth Restrictions Imposed

VII. Findings of Study:

Post review of international, national books, research papers, articles, reports, case studies and other resources, the present study has following findings:

- COVID-19 influenced the school education system to the great extent not only in India but all over the world resulting in closure of schools for more than two academic years.

- The COVID-19 impact is visible in positive as well as negative forms for different stakeholders of school education such as students, teachers, schools and others.

- The digital disruption, innovative educational technology, 'Learn/Work From Home', continuous education, compliance of social distancing, digital literacy, education in emergencies are positive outcomes of COVID-19 impact in India.

- Poor digital infrastructure, lack of technical expertise, rote teaching-learning, lack of control, limited involvement/motivation/interactions, communication gaps, uncertainties, mental and physical health hazards, growth restrictions, and financial concerns found to be the major setbacks caused by pandemic outbreak for school education system in India.

- In a nutshell, it compelled the educators for innovation, change management, creativity and better use of technology

VIII.   Conclusion

All of the above discussion shows that COVID-19 has short, mid as well as long-term and severe impact on the school education system in India. One side, it created multiple opportunities by exploring the unlimited possibilities through academic excellence, change management, crisis management, innovation in education, education technology, learn from home enabling the stakeholders to continue the teaching-learning processes. To the other side, it gave birth to a series of challenges posing the threat to the students, teachers in terms of mental disturbance, poor digital infrastructure, mobile addictions, digital divide, financial concern and uncertainties. However, it prepared all of us how to cope up with the uncertainties of the future. It revolutionized the product, process and system of school education altogether for future.

References:

- Awasthi, P. (2020, May 23). Online classes turning out to be nightmare for teachers amid COVID-19 lockdown. Retrieved July 5, 2020, from The Week: https://www.theweek.in/news/india/2020/05/23/online-classes-turning-out-tobe-nightmare-for-teachers-amid-covid-19-lockdown.html

- Aboagye, J. A. Yawson, and K. N. Appiah (2020). COVID-19 and E-Learning: the

- Challenges of Students in Tertiary Institutions, *Social Education Resources*, Pp. 109–115, DOI: 10.37256/ser.122020422.

- Bandura, A. (1997). Self-efficacy: The Exercise of Control. New York: W. H. Freeman.

- Deka, K. & Anand, S. (January 3, 2021). "Covid-19 fallout: The impact on education in India." Available at: https://www.indiatoday.in/magazine/news-makers/story/20210111-school-of-hard-knocks-1755078-2021-01-03

- Dewan S. and K. L. Kraemer (2000). Information Technology and Productivity: Preliminary Evidence from Country-level Data. Management Science, 46(4), 548–562.

- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. Educause Review.

  Retrieved from https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

- India Today. (December 4, 2020). "Govt. School Teacher Ranjitsinh Disale wins Global Teacher Prize, Makes History by haring half with other finalists." Accessible on https://www.indiatoday.in/education-today/news/story/govt-school-teacher-ranjitsinh-disale-wins-1-million-usd-global-teacher-prize-1746709-2020-12-04

- KPMG India & Google Inc. (May, 2017). Online Education in India: 2021.

- Muthuprasad, T., Aiswarya, S., Aditya, K.S. & Jha, G. K. (2021). Students' perception and preference for online education in India during COVID -19 pandemic, Social Sciences & Humanities Open, Volume 3, Issue 1. DOI: https://doi.org/10.1016/j.ssaho.2020.100101

- Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. MERLOT Journal of Online Learning and Teaching, 11(2), 309–319.

- Nguyen, T., Netto, C.M., Wilkins, J.F., Bröker,P., Vargas, E.E., Sealfon, C.D., Puthipiroj, P., Li, K.S., Bowler, J.E., Hinson, H.R., Pujar, M. & Stein, G.M. (2021). Insights Into Students' Experiences and Perceptions of Remote Learning Methods: From the COVID-19 Pandemic to Best Practice for the Future). Frontiers in Education: Educational Psychology. DOI: https://doi.org/10.3389/feduc.2021.647986

- OECD. (November, 2020). The Impact of COVID-19 on Student Equity and Inclusion: Supporting vulnerable students during school closures and school re-openings.

- Pokhrel, S. & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning, Higher Education for the Future, 8(1) 133–141. DOI: 10.1177/2347631120983481journals.sagepub.com/home/hef

- Ravichandran, P., & Shah, A. K. (2020, July). Shadow pandemic: Domestic violence and child abuse during the COVID-19 lockdown in India. International Journal of Research in Medical Sciences, 08(08), 3118. https://doi.org/10.18203/2320-6012.ijrms2020347

- Roper, A. R. (2007). How students develop online learning skills. Educause Quarterly, 30(1), 62–64.

- Shah, S. & Jani, T. (2020). Online Education in India: Issues & Challenges. International Journal of Multidisciplinary Educational Research, Volume: 9, Issue: 7(5), Pp. 67-71. DOI: https://www.researchgate.net/publication/343696

- Sintema, E. J. (2020, April 7). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. EURASIA Journal of Mathematics, Science and Technology Education, 16(7). https://doi.org /10.29333/ejmste/7893

- Smith, P.J., Murphy, K. L. & Mahoney, S. E. (2003). Towards identifying factors underlying reading for online learning: An explorative study, Distance Education, 24(1), 57-67.

- Suri, C. S. (2021). Challenges To Online Education: A Review. Journal of Contemporary Issues in Business and Government Vol. 27, No. 1, DOI: https://cibg.org.au/

- Sun, A. & Chen, X. (2016). Online Education and its effective practice: A Research Review, Journal of Information Technology Education, 15.

- United Nations. (2020). Policy brief: Education during COVID-19 and beyond. United Nations. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf

- UNESCO. (2020). COVID-19 Educational disruption and response. https://en.unesco.org/themes/educationemergencies/coronavirus-school-closures.

- World Bank. (2020). Beaten or Broken? Informality and COVID-19. International Bank for Reconstruction and Development / The World Bank, Washington, USA. DOI: 10.1596/ 978-1-4648-1640-6

Online Resource/s:

- https://www.oecd.org
- https://www.globalsistersreport.org