

# A Study On Impact Of Online Teaching Programme On Education System During Covid-19

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## **Abstract**

The covid-19 has put the whole world in a turmoil. It has disrupted every facet of our lives. The immediate lockdown and social distancing measures for the covid-19 led to the closer of almost all educational institutions over the world and has created the largest disruption of total education system. Near about 1.6 million learners belong to more than 200 countries were affected due to this crisis. After China India, has the largest school system. According to one UNESCO report, 63 million teachers were affected in 165 countries. Around 320 million learners in India are affected, since Indian education system is not very mature. Government of every country has announced the lockdown and closer of educational institutions with a logic of social distancing for indefinite period. Which further led a tremendous negative impact on the education system of the country. The total teaching learning process beginning from the entrance tests of several Universities, teaching methods, learning methodology and assessment process have been under a question mark. Everything has shifted from the direct face to face mode to online mode with immediate shift or implementation of internet based online education. The teachers, students as well as teacher educators are facing several challenges to handle the critical situation.

**Keywords:** COVID-19, Online teaching, UNESCO, Learning process, Education system.

## **Introduction**

Covid-19's proliferation has triggered fear in practically every area of the global economy and drove academic institutions into online instruction because of the government's decision to shut down schools, colleges, and universities indefinitely (Martinez, 2020). Some 500 million pupils in India have been impacted by this issue (Gupta & Tiwari, 2020). In light of students' safety concerns, academic institutions have to find ways to teach pupils with minimal interruptions (Hale et al., 2020). Teachers and students alike must embrace digital learning if e-learning is to be deemed a success (Lederman, 2020). Instructors encountered considerable challenges as a consequence of the rapid transition to a click-style of education (Adnan & Anwar, 2020; Bdair, 2021). Even when courses were suspended because to COVID-19, the Chinese authorities highlighted the need for knowledge acquisition (Zhang et al., 2020). The concept of a worldwide teaching change in such a short period of time was a fresh one (Brom et al., 2020).

### **Emerging technology in teaching learning:**

A recent development has happened due to the paradigm shift that several educational platforms have come out with an objective to make the process the process continues. E-platforms and E-learning tools have played an important role during this crisis period. They help the schools, college and university teachers and students to teach and learn during the shutdown. There is a need and demand of innovative alternative strategy for education and evaluation. The Covid-19 pandemic has provided us with an opportunity to pave the way for introducing digital learning (Dhawan, 2020). Transition from the direct face to face mode to online has brought mode new experience both for the teachers and learners. The emergency transition forced all the educational institutions to adopt and use online tools to continue the teaching learning process. Some of the platforms used for communication and collaboration are Microsoft teams, Google classroom Zoom, Skype, Canvas, Blackboard and live You tube etc., which allows the teachers to create educational courses, training and skill development programmes and to deliver lectures to complete their syllabus. These platforms have also the facilities for sharing variety of content materials in Word file, PDF, Excel file, Audio-Video etc., as well as allows the teachers for tracking assessment by the rubric based assessment of submitted assignments. Availability of online platform for the purpose of making teaching learning process in continuous form cannot ensure teachers are familiarity with such internet based online platform. However, the sudden change from face to face classroom atmosphere to a computer/laptop or to smart phone have made them distracted on what to do and how to move forward with the new paradigm?

### **Teacher development practices:**

While accepting such challenges the students, teachers and teacher trainees need to be gauged because all of them have their own fixed mindset and find themselves under pressure to adopt and adjust. Different subjects have their objectives, methods and techniques of teaching which teachers apply and use to achieve the objectives. Similarly, different age group of learners have different needs, interest and aptitude. The teachers in direct classroom teaching take care of all these things. The class teacher always keeps an eye on his student's behavior. Through his observation and face reading of students he comes to know that whether their needs and interests are fulfilled or not? The continuous and comprehensive assessment of students give the knowledge about their achievement level as well as the effective use of teacher's methods, techniques and skills. In the present context, the application of online learning treated as one size-fit all pedagogy for online learning. The availability of online platform has the provision for student's assessment. There is pressure on both students and teachers for completion of courses for online examination. Evaluation of online answer sheets are not showing transparency and genuineness as expected by parents. The success and failure concept of examination via online mode are considered and analyzed to one point i.e., mass promotion to next semester/class without having their practical exams. Online teaching and evaluation now become accepted as a reality in the current situation.

## **Review of literature**

In Okebukola's (2020) view, teachers were adversely affected by the quick move from classroom to online teaching (2020). Instructors were given guidelines by the United Nations 2020 to use online platforms to teach. Primary and secondary school teachers in Sub-Saharan Africa have only received rudimentary ICT training, according to Force (2020). Preliminary literature evaluations and reports on non-structures (such as students and administrators) were undertaken by researchers prior to the commencement of covid-19 (Kebritchi et al., 2017; Al-Samarraie, 2019; de Lima et al., 2018; Rasheed et al., 2020, Islam et al., 2015). Educators questioned by Trust and Whalen et al., (2021) cited weariness in locating, understanding and applying the correct technology for their classrooms due to a lack of training and on-site support resources. According to a UNESCO study (2020b), approximately 1.5 billion students were not taught online by teachers. To retain the quality of learning experiences, instructors have to adjust old teaching approaches and adapt to new online platforms, according to Sunasee (2020). Instructors are still experiencing difficulty teaching in remote classrooms, according to Putri et al. (2020), and it is vital to identify and overcome these concerns. Students, instructors, and administrators from higher education, as well as instructors from tertiary and secondary educational institutions, have faced challenges in online teaching as a result of the emergence of covid-19, according to review studies by Aini et al. (2020), Mseleku (2020), and Pokhrel and Chhetri (2021). According to Gao and Zhang (2020), bad network quality makes it impossible for professors to run online courses efficiently and effectively. Many instructors have less control over their courses, according to Huang (2020), since they are unable to answer their students' queries in real-time when in various places or spaces. According to Joshi et al. (2020) external distractions such as sounds made by neighbors, automobiles, family members, and so on, operate as hurdles or challenges to productive online learning. Because they lack computers, microphones, and cameras, and their internet connections are inadequate, many teachers struggle to conduct online courses properly. According to Almazova et al. (2020) and Hadjeris (2020), having small group discussions and live discussions with students with the same quality of interactions as face-to-face interactions is impossible. Bahar et al. (2020) pointed out school supported LMS don't have the ability to allow students and instructors to have live interactions. Lack of knowledge of digital things also becomes a major barrier for educators, as found by Hazaea (2020). Pakistan's University teachers reported difficulties in effectively handling and teaching clinical and practical classes, as mentioned by Mukhtar et al. (2020). Online classes are found to increase the work hours for teachers as they also had to acquire additional knowledge on the multimedia teacher aids available to them, as per Dubey and Singh (2020). University students believe that the online teaching abilities of teachers have gotten better as per Chakraborty et al. (2020). According to Ramij and Sultana (2020), Bangladesh university teachers face challenges due to a shortage of infrastructure, expensive and slow internet connections, and bad economic and financial conditions.

## **Research Gap**

Teachers in universities, colleges, and schools who taught online during the Covid 19 epidemic confronted various problems, but they underestimated the teachers' difficulty in e-learning amid a continuing pandemic. Rarely have exploratory research on the difficulties instructors face been conducted during the COVID-19 era (Adedoyin & Soykan, 2020; Adnan & Anwar, 2020).

### **Objectives**

The goal of this research is to look at the obstacles that instructors faced when teaching online during the COVID-19 epidemic. The goal is to comprehend the difficulties of online teaching from home, particularly in the education sector.

### **Significance of the Study**

The outbreak of novel corona virus created a huge challenge on national education system have ever faced. Though E- learning existing before the outbreak, it is gaining more importance during the lockdown times and it is expected to bring the paradigm shift in the education system on trajectories of pandemic. This research studies helps to know what the impacted areas are and guides the policymakers on focus areas, challenges and preparations that systems could make which as to be faced in future scenarios.

### **Research methodology**

To collect the data for the study descriptive methodology has been used. The attitude of respondents are collected regarding the E- Learning during COVID-19 and Potential Challenges on Education System during COVID- 19. Since it is dangerous to go outside to collect data due to the epidemic, the information given in the current study was obtained through several reliable websites and emails. Covid-19.

### **Sources of data collection**

Both primary and secondary data are used to conduct the study. As it is unsafe to walk outside for data collection because to the pandemic Covid-19, primary data were acquired with the aid of a well-structured questionnaire using the convenience sampling approach. Secondary data is gathered from a variety of sources, including books that have been published, articles that have been published in various magazines and newspapers, periodicals, conference papers, websites, etc.

### **Sample Framework of the study**

The convenience sampling method was used to choose a sample size of 270, of which 250 data could be used. This shows a really substantial response rate. Teachers and Professionals are included in the sample.

### **Statistical tools used for data analysis**

The evidence collected was scrutinized and presented in a logical way to give a relevant interpretation. For the analysis various appropriate statistical tools are used like mean, standard deviation and percentage method and regression analysis.

## Results and discussion

### Demographic profile of the respondents

**Table no 1.1**

#### Classification of different type of respondents

Sl.no	Particulars	Male	Female	Total	Percentage
1	Professionals	28	11	39	16
2	Teachers	153	58	211	84
	Total	181	69	250	100

**Source: Primary data**

**Inference:** table 1.1 represents the classification of respondents out of 250 respondents 16% are Professionals and 84% are Teachers and out of total respondents 181 are males, 69 respondents are females.

**Table no 1.2** Table showing which mode of education do you think more useful after COVID-19?

Particular	Frequency	Percent	Mean	SD
Traditional Method of Learning	53	21	1.79	.410
E- Learning	197	79		
Total	250	100		

**Inference:** The 21% of respondents feels that Traditional method of Learning during and after COVID -19 is the good mode of education. The 79% of respondents opinioned E- Learning is the best mode of education which will cover more learners around the globe. The many countries like Denmark, South Korea, America and other European countries are adopted E-Learning in schools and colleges, which is the need of the country to adopt E- Learning in Colleges and Universities to update present technology in Education.

### Testing of Hypothesis

**H1: Attitude of Respondents regarding Traditional Method of Teaching and E-Learning are same.**

**Table no 1.3**

Table showing which is the best way of Teaching

Particular	Frequency	Percent	Mean	SD
Face to Face class room teaching	25	10	1.90	.301
Online Classes	225	90		
Total	250	100		

**Inference:** The data reveals Education technology had already experienced rapid expansion and adoption before to COVID-19, with global ed tech investments reaching US\$18.66 billion in 2019 and the market for online education as a whole expected to reach \$350 billion by 2025. Since COVID-19, there has been a noticeable increase in utilisation of language apps, virtual tutoring, video conferencing tools, and online learning software. 10% of respondents said that face-to-face instruction in the classroom had an impact on education, much like the Gurukula system in India. 90% of respondents believed that online classes would have a greater impact on education.

**H2: There is significant difference between educational reforms and online teaching programme during Covid-19**

**Table 1.4 Educational reforms at online teaching**

SI. No.	Educational reforms	Mean Value	t Value	Sig
1.	The quality of education is enhanced online teaching during Covid-19	3.79	14.472	0.000
2.	Equal opportunities are offered during Covid-19	3.99	25.280	0.000
3.	Gender balance is maintained during online teaching	3.91	14.219	0.000
4.	Teacher trainings are conducted	4.01	16.278	0.000
5.	Effective and practical methods of teachings offered during Covid-19	4.11	14.078	0.000
6.	Teachers follows the curriculum during online teaching	4.19	18.240	0.000
7.	A learning environment in the school is established	4.03	18.563	0.000

Table 2 shows some of the educational reforms that are done during Covid-19. It is seen that the educational reforms that are done at online makes sure that the quality of education is enhanced with the mean value 3.79 and Equal opportunities are offered during Covid through it with the mean value 3.99 and in the process it is seen that the Gender balance is maintained with the mean value 3.91 and it ensure that Teacher trainings are conducted with the mean value 4.01. In new educational reforms they look after the Effective and practical methods of teachings during online teaching with the mean value 4.11 and it is seen that Teachers follows the curriculum with the mean value 4.19 and a learning environment in the school is established with the mean value 4.03.

**H<sub>3</sub>:** There is significant impact of factors affecting the online teaching through digitalized channel with respect to Covid 19.

**Table 1.5– Model Summary for Relationship between Online teaching through digitalized channel**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
				R Square Change	F Change	df1	df2	Sig. F Change	
.910	.828	.827	.60786	.828	670.903	3	249	.000	1.442

**Table 1.5– ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	743.693	3	247.898	670.903	.000
Residual	154.081	247	.369		
Total	897.774	250			

**Table 1.6– Regression Analysis Coefficients**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.340	.250		5.357	.000
Digital Channel	.812	.056	.761	14.514	.000
Covid Factor	-.312	.053	-.120	-5.852	.000
Teaching Experience	.161	.060	.140	2.679	.008

In order to check that whether there exists a significant relationship among several factors such as online teaching through digitalized channel, regression analysis is conducted.

To state the relationship between online teachings through digitalized channel the relationship will be-

$$Y = a + bX_1 + cX_2 + dX_3 + e$$

Where Y is a dependent variable online teaching and X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> are the independent variables namely Covid factor, teaching experience and digitalized channel.

It is desirable that the value for Durbin- Watson statistics should lie between 0 and 4, where, a value close to 4 indicates uncorrelated errors (Durbin and Watson, 1950, 1951). In the table above it is mentioned that the Durbin Watson value is 1.442, which is in an acceptable range. However, as per Field (2009), the values below 1 and above 3 are causes for concern. R Square is the coefficient of determination. The value of this coefficient varies between 0 and 1, where value of 1 (100%) signifies that the model is properly applied and estimated and the regression equation perfectly predicts the dependent variable. As per our statistics the value of R<sup>2</sup> is 0.828, which clearly states that the independent variables predicts the dependent variable up to 82.8%.

Analysis of Variance (ANOVA) tests whether the model is significantly better at predicting the outcome than just using the mean as a 'best guess'. The model is considered to be statistically significant if it can account for a large amount of variability in the response. F-ratio (F) is the ratio of the model mean square (labeled as "Regression" in the ANOVA table) to the Error Mean Square (labeled as "Residual" in the ANOVA table), and represents the ratio of improvement in prediction that results from variance explained relative to the variance still unexplained. The test statistic is used to arrive at a decision whether the model as a whole has statistically significant predictive capability. The null hypothesis is rejected if the F ratio is large. As per the ANOVA table above it is clear that the F ratio is quite large (670.903), which states that the null hypotheses is rejected. It clearly proposes that there exists significant relationship between independent variables and dependent variable.

If the significance value of t-statistics is less than 0.05 the null hypotheses will be rejected and then we can say that particular independent variable is able to predict the dependent variable. From the table above it is clear that the significance value of t-statistics is less than 0.05 (sig. = 0.00) for digitized channel, Covid factor and teaching experience thus it proposes that there exists a significant relationship between the factors (digital channel, Covid factor and teaching experience) and online teaching programmes.

### **Conclusion:**

It is said that after every bad day there is a good day ahead. Thus, we can hope for the best education system after covid-19. Blended learning is one of the gate ways for educational institutions where students can complete their theory and practical works in online and offline mode. Role of teachers are very much challenging during covid-19. This can be solved through proper training and infrastructure support to teachers. The quality e-study materials need to be more content specific according to needs and interests of students. Time and place are not a



hindrance in the delivery of online education, but non availability of technical infrastructure and irregular interrupted internet connectivity, specifically in rural areas are the biggest problems. The teacher and students digital learning need digital technological facilities for teaching and/ training and practical work. Authentic assessment, timely feedback to students can be possible with the support of quality resources. Quality teacher can be produced through quality training. New strategies must be developed to develop digitalized quality teacher education programmes. It is the need of the hour to strengthen teacher's knowledge of ICT. The virtual mode may be considered as emergency measure. We cannot depend on this mode fully on completion of the curriculum requirement of teacher preparation programme now.

In order to continue studying while preserving social distance throughout the pandemic's lockdown period, e-learning has emerged as an alternate platform. Even though Covid-19 has presented numerous difficulties, it has encouraged educational institutions to look at improved learning chances utilising various technology. For the benefit of stakeholders, the government has been addressing any issues brought on by Covid-19 and delivering efficient support services online.

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