

## **Perception of HEIs Teachers towards Online Teaching**

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### **Abstract:**

COVID-19 has affected Higher Educational Institutions (HEIs) not only in Wuhan, China where this novel corona virus originated but all other HEIs across the globe in 2020. In India, closure of schools & colleges since March 2020 has made education of the students a great challenge in front of the HEIs teacher. Although, teachers are making all the efforts to pass the knowledge to the students from home during lockdown by adapting several online tools. The research was conducted to study the perception of teachers and their experiences of teaching students online during the lockdown. A questionnaire was distributed to 300 teachers of HEIs out of which 260 responses were analysed.

The Exploratory Factor Analysis (EFA) was carried out in SPSS 23. The analysis represents the perception of teachers towards online teaching the basis of four factors “Efficacy”, “Communication Gap”, “Teachers Burden” and “Comfortability”. Research findings indicated that the majority of teachers had intermediate computer competency and half of them had training in online teaching, with only a few having a stability issue with internet connection.

From the analysis it was revealed that teachers believe that online teaching result in more academic dishonesty, impersonal and lack feeling compared to face-to-face teaching, and difficult in student-teacher interaction. Additionally, faculty believed all lectures cannot be replaced by technology tools and it increases teacher’s burden. Teachers also opined that technology of online education courses is difficult to manage. However, study shows that despite challenges the teachers are taking online teaching positively and with time they have adapted to the new normal from face to face teaching to

online teaching. Teachers of HEIs are overall in favour of online teaching thus embracing the challenges imposed by COVID-19 pandemic by actively partaking in shaping the future of students during these tough times.

**Keywords: COVID-19, Higher Education Institutions (HEIs), Online Teaching and Teachers perception.**

## I. INTRODUCTION

COVID-19 has affected Higher Educational Institutions (HEIs) not only in Wuhan, China where this novel corona virus originated but all other HEIs across the globe in 2020<sup>[1]</sup>. In March 2020, India witnessed COVID-19 and as a result all schools and colleges were declared closed in the country. This outbreak has raised significant challenges for the higher education community but at the same time presented both opportunities and challenges on HEIs. A particular challenge has been the urgent and unexpected need of switching from for previously conventional mode of teaching to online teaching. Consequently, HEIs responded proactively to the disruption brought by the pandemic by switching from traditional way of teaching to online teaching on digital platforms. However, the COVID-19 cases declined by the end of December 2020 and while government was thinking to re-open colleges from March 2021 but unfortunately there was again spurge in COVID-19 cases in India in the mid of Feb 2021. The sudden closure of the colleges and a switch from traditional face to face teaching to virtual mode of teaching is just a baby step trial in the long journey of online education that includes effective student engagement tools and teacher's training.

The higher educational institutions across the globe are facing many obstacles to become accustomed to this change and are trying their best to choose the right technologies and approaches for engaging and educating the students. The pandemic has exposed the vulnerabilities and shortcomings of the current education systems and has also emphasised the need for digital literacy development, particularly in times like these, for both developed and developing countries<sup>[2]</sup>. The COVID-19 pandemic forced higher education institutions and universities to adapt to the rapidly changing situation in a way that was unimaginable a few months ago. The sudden shift to adapt and implement online learning has led to over-work, stress among the teaching faculty. With this intent understanding the views of faculty towards online teaching is necessary so that their voice may be properly addressed<sup>[3]</sup>. The HEIs need to insure that they provide training to the teachers and also equipped them with digital technology required for a smooth teaching-learning process.

In this context, an attempt has been made by the researcher to assess the perception of teachers on the effectiveness of online teaching over face-to-face classroom environment. This research is intended to

give insight into how teachers perceive the implementation of online teaching over traditional teaching.

## II. LITERATURE REVIEW

The COVID-19 pandemic has put the education system in trouble. Online teaching is way different & difficult as well when compared to traditional classroom teaching. The drastic change from conventional pedagogy in higher education to the adoption of online platform required teachers and facilitators to bend their teaching pedagogy. Adapting digital platforms for online teaching within a short span of time was the foremost challenge for most of the Indian teachers. In addition to this conducting online assessments further worsened their problem. Though there is hardly any literature available on teacher's perception towards online teaching during Covid-19 lockdown still the researcher has made an attempt to give a background to the present study on the basis of little previous literature available on online teaching.

Punit and Qz.com (2020)<sup>[4]</sup> stated that online classes during lockdown have been an unpleasant experience for teachers. Mishra (2020)<sup>[5]</sup> has also pointed out the concern for digital divide and infrastructure necessary for online teaching through platforms in India.

QS-ERA (2020)<sup>[6]</sup> did a pilot survey and came to conclusion that India's technological infrastructure do not have a state of quality that is required for the effective delivery of online classes to students. Jacobs (2014)<sup>[7]</sup> recommended assessment of students in online course is a major issue. Young (2006)<sup>[8]</sup> surveyed students and established that there are basically three qualities that students expect the most from their teachers like encouraging motivation, facilitating the course effectively communicating effectively with them during online teaching. Arbaugh (2005)<sup>[9]</sup> opined technology, behavioral characteristics of the learners, and instructors' teaching style as vital challenges in online education. Brooks (2003)<sup>[10]</sup> mentioned to attitudes of teachers as a main problem affecting teaching online courses. Yueng (2001)<sup>[11]</sup> stated major issues as instructor and student support, course development, course structure, and how the institution evaluates online learning. Volery (2000)<sup>[12]</sup> using an empirical study among college students, proposed a framework for the critical success factors in online education with emphasis on three aspects: technology (ease of access and navigation, interface design, and level of interaction); instruction, including instructors' attitudes toward students, technical competence, and classroom interaction; and the students previous use of technology.

### III. OBJECTIVES

The main objective of this study is to analyse the perception of teachers about online classes. This research tries to explain the teacher's view on "Efficacy", "Communication Gap", "Teachers Burden" and "Comfortability".

### IV. RESEARCH METHODOLOGY

The researcher tried to study the perception of HEIs teachers towards online teaching. The study was carried out from December 2020 to February 2021. Respondents include HEIs teachers selected using simple random sampling technique.

An online questionnaire having 42 questions was prepared and distributed to 300 teaching professionals in HEIs through online and out of 300 only 260 respondents were analysed. Five-point Likert scale was employed to collect the perception of teachers with respect to online teaching where one indicates strongly disagree and five indicates strongly agree. The data was collected and coded in a systematic way after which was analysed using SPSS 23. Questionnaire consisted of total 42 questions. Collected data was bifurcated into two sub parts – demographic profile of the teachers consists of 12 questions and perception of teachers about online teaching consists of 30 questions. Secondary data was also used for reviewing various findings by the researchers in the past.

To gauge the internal consistency of the questionnaire Cronbach's Alpha in SPSS 23 was applied. A universal accepted rule is that an alpha between 0.6-0.7 is considered as an acceptable level of reliability, and an alpha greater than or equal to 0.8 indicates as a very good level. On the other hand, any value greater which is than 0.95 is not always considered as good, because they might be an indication of redundance<sup>[13]</sup>. Table 1 shows the value of Cronbach's alpha which is greater than 0.6 i.e. 0.872 and therefore acceptable.

**Table 1. Reliability Statistics**

<b>Cronbach's Alpha</b>	<b>N of Items</b>
0.872	42

### V. DATA ANALYSIS

Table 2 shows that majority of the faculty were female (63.85%), medium aged 31 to 40yrs (49.23%), married (80.77%), possessing Bachelor's degree holder (52.69%), teaching in undergraduate level (61.92) in private with university affiliated college (53.08%), having 1 to 5 years of teaching experience (54.23%), with assistant professor academic rank (48.46%).

The majority of the respondent faculty also had intermediate computer competency level (71.92%) and half of the faculty had training in online teaching (50%). Few had a somewhat stable internet connection (47.31%). Smart or mobile phones (41.54%) and desktop (32.69%) were the common devices used to connect on the Internet for teaching online.

**Table 2: Demographic profile of the respondents (N=260):**

Profile	f	%
<b>Gender</b>		
Male	94	36.15
Female	166	63.85
<b>Age</b>		
Between 20-30yrs	28	10.77
31-40yrs	128	49.23
41-50yrs	85	32.69
Above 50	19	7.31
<b>Marital Status</b>		
Married	210	80.77
Unmarried	50	19.23
<b>Educational Attainment</b>		
Doctorate Degree	19	7.31
Master's Degree	104	40.00
Bachelor's Degree	137	52.69
<b>Teaching In Program</b>		
Undergraduate	161	61.92
Postgraduate	99	38.08
<b>College Type</b>		
Private with University Affiliation	138	53.08
Autonomous	35	13.46
Aided	87	33.46
<b>Years in Teaching</b>		
11 years and above	70	26.92
6-10 years	49	18.85
1-5 years	141	54.23
<b>Academic Rank</b>		
Associate Professor / Professor	54	20.77
Assistant Professor	126	48.46
Adhoc Faculty	80	30.77
<b>Perceived Computer Competency</b>		
Expert	62	23.85
Intermediate	187	71.92
Beginner	11	4.23
<b>Training in Online Teaching</b>		
Yes	130	50.00
No	130	50.00

<b>Stability of Internet Connection</b>		
Very Stable	100	38.46
Somewhat Stable	123	47.31
Not Stable	37	14.23
<b>Devices Used to Connect on the Internet</b>		
Smart or mobile phone	108	41.54
Laptop	67	25.77
Desktop	85	32.69

## VI. TEACHERS' PERCEPTION ON ONLINE TEACHING

The present study was analysed to know the perception of online teaching during the current situation of pandemic. The survey asked teachers about efficacy of teaching, communication gap between teacher and student, comfortability and teachers burden while teaching online. Exploratory factor analysis (EFA) was done to evaluate the questionnaire with respect to perception of teachers for online teaching. Factors were identified using Eigen values more significant than one as the criterion<sup>[14]</sup>. After EFA the researcher removed all the items with factor loading below 0.50. For confirming the adequacy and sphericity of the data set, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test values were obtained for confirming the adequacy and sphericity of the data set obtained. The value of Kaiser-Meyer-Olkin (KMO) and Bartlett's Test obtained is 0.784 and any value above 0.5 is acceptable. Therefore, factor analysis was adopted.

**Table 3: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.784
Bartlett's Test of Sphericity	Approx. Chi-Square	2509.904
	df	78
	Sig.	.000

Table 4 explains the communality value. Initially, we asked ten statements related to "Efficacy", six statements related to "Communication Gap", six statements related to "Teachers Burden" and eight statements that represent "Comfortability". EFA was done to reduce the number of factors that less explains the respective factors. In case of "Efficacy" five items were retained, in "Communication Gap" "Teachers Burden" only three items retained respectively, in "Comfortability" only two items were retained as shown in Table 4.

**Table 4: Exploratory Factor Analysis**

Factor	Statements Retained	Initial	Communality
Efficacy	There is more academic dishonesty in online courses	1	0.775
	Student discussions in online education will seem impersonal and lack feeling compared to face-to-face classes	1	0.781
	Teaching online will have less impact on my face-to-face courses and instruction	1	0.92
	There is no way for teachers to know if students sincerely listen in an online class	1	0.694
	There is no way for teachers to know if students understood the concept in an online class	1	0.668
Communication Gap	Online education is not a viable alternative for learning compared to face-to-face environments	1	0.826
	P10 Students learn less in online class	1	0.898
	P11 There is less student-teacher interaction in online learning environments	1	0.855
Teachers Burden	Online teaching increases teachers' burden	1	0.827
	Teaching online makes it more difficult to be fair and open- minded with students	1	0.648
	The technology of online education courses is difficult to manage	1	0.706
Comfortability	My lectures cannot be replaced by technology tools	1	0.724
	Overall, I am in favor of online education.	1	0.785

**Extraction Method : Principal Component Analysis**

Table 5 shows the percentage of variance of the four extracted factors. Factor I explained 28.18% of total variance, Factor II explained 23.22%, Factor III explained 15.63 % and Factor IV explained 9.94% respectively. Total variance explained by the convergence of 13 statements into 4 factors is 76.98% which means other component accounting to 23.02% exist contributing to perception of teachers towards online teaching.

**Table 5: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	e	e %	1	e	e %	1	e	e %

1	6.24 9	48.068	48.068	6.24 9	48.068	48.068	3.66 4	28.182	28.182
2	1.55 5	11.964	60.032	1.55 5	11.964	60.032	3.01 9	23.222	51.404
3	1.19 2	9.167	69.199	1.19 2	9.167	69.199	2.03 3	15.637	67.041
4	1.01 2	7.787	76.986	1.01 2	7.787	76.986	1.29 3	9.945	76.986
5	.817	6.284	83.270						
6	.512	3.937	87.207						
7	.455	3.499	90.706						
8	.384	2.957	93.663						
9	.293	2.252	95.915						
10	.228	1.750	97.665						
11	.142	1.094	98.760						
12	.096	.742	99.502						
13	.065	.498	100.000						

Extraction Method: Principal Component Analysis.

**Component Transformation Matrix**

Component	1	2	3	4
1	.686	.575	.439	.083
2	.528	-.703	.005	.476
3	-.453	.219	.265	.823
4	-.213	-.357	.859	-.299

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

## VII. CONCLUSION & RECOMMENDATION

Adapting to the new normal online teaching due to Covid 19 lockdown has fetched exciting new ways to learn about almost anything. It has brought a negative as well as positive impact on the lives of both the students and the teachers. The above analysis revealed that teachers believe online teaching results in more academic dishonesty, impersonal and lack feeling compared to face-to-face teaching, and increases communication gap between student & teacher. Additionally, faculty believed all lectures cannot be replaced by technology tools and it also increases the working hours of teachers in addition to teacher's burden. Many teachers are also of the opinion that technology needed for effective online teaching is sometimes really very difficult to manage. However, study shows that despite challenges



the teachers of HEIs have positive perception towards online teaching during covid-19 lockdown and are overall in the favour of this transition.

As teacher's transit and adapt to the new normal in the higher education landscape, there is a need to understand the obstacles that come in the way of accepting online teaching and to overcome it they must be provided with continued support, resources required for online teaching, training, and development. However, one cannot ignore the advantages gained from e-learning. As such, there is a dire need to identify the obstacles that come in the way of online teaching and HEIs should take corrective measures to overcome it.

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