

**Teaching Culturally and Linguistically Diverse International Students in Open and/or  
Online Learning Environments: A Research Symposium**

**Teachers' Attitudes Towards Emergency Remote Teaching:  
Challenges in Indian Academe**

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**Abstract**

*The present study intends to explore the challenges of teachers' attitudes during Emergency Remote Teaching (ERT) in higher educational institutions (HEIs) during the COVID-19 pandemic. It also investigates whether teacher age is in any way a mediating factor for teacher attitude. The transformative sequential research design of mixed methods was employed on a random sample of 90 participants pooled ever since the lockdown had been announced in India (March 23, 2020). The qualitative data (text), thus obtained, has been categorized into six challenges, sorted into categories, and transformed into quantitative data (code) for the Chi-square test and interpretation. The Chi-square test confirms no significant association between challenges in ERT identified by teachers' attitudes and teachers' ages. The study discusses the challenges felt by teachers and the probable ways of mitigation them for running remote teaching during this pandemic.*

**Keywords:** attitude, emergency-remote teaching, COVID-19, higher-educational institutions, challenges

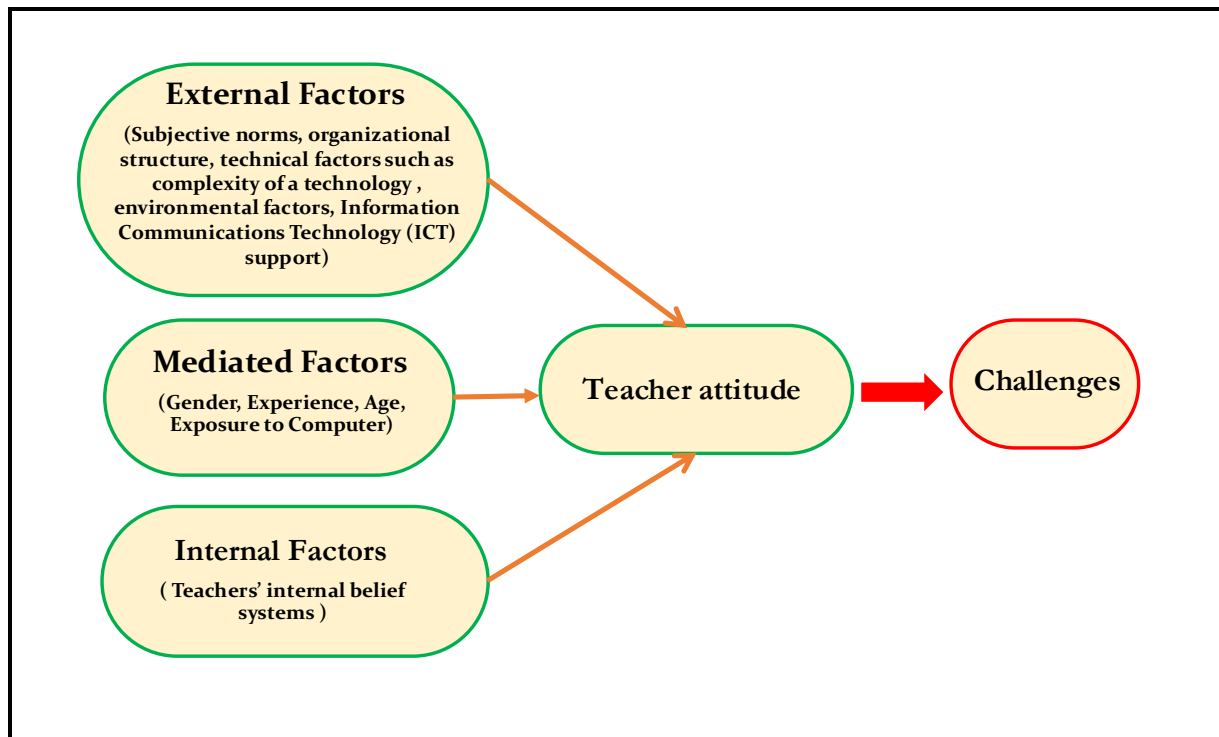
## Introduction

Ever since the COVID-19 pandemic in early 2020, around 1.2 billion learners were taken out of the classroom (UNESCO, 2020). This led to a typical rise of alternative modes of teaching that was undertaken remotely and on digital platforms (Hodges et al., 2020). Teachers were compelled to adopt an online mode as a substitute for conventional, face-to-face learning to mitigate the emergency. According to Hodges et al. (2020), well-planned, online teaching was completely different from the one that had been quickly shifted online in response to a crisis. This newly shifted mode may have been shocking to the faculty, and was formally termed as “emergency remote teaching (ERT).

A survey conducted by QS I.GAUGE (2020) found that the technological infrastructure had not achieved a state of quality to ensure the sound delivery of online classes to students in India. The objective of the present study was to explore the challenges in ERT that teachers’ attitudes identified. As an adopted framework, the study used the factors outlined by Kisanga (2016), which includes external, mediated, and internal influences that may have prompted teachers’ attitudes that reflected the challenges of online teaching (refer to Figure 1).

**Figure 1**

*Framework to identify teachers’ attitudes and challenges.*



In addition to Figure 1, Bozkurt et al. (2020) indicated some issues of concern in different countries that might have caused the problems. Hence, the research questions are in HEIs:

1. What are the broad challenges in ERT that teachers identify?
2. How does the teacher’s age relate to the teacher’s attitudes toward ERT?

## Review of Related Literature

There have been studies conducted in alternative modes of teaching during a pandemic. For example, there are several challenges faced by teachers during the online teaching-learning process, such as network issues, lack of training (Joshi et al., 2020), incompetency in using technology (Almaiah et al., 2020; Joshi et al., 2020), lack of awareness, lack of interest, less attendance, lack of personal touch, depression, lack of interaction (Arora & Srinivasan, 2020), and lack of sufficient infrastructures, like digital devices, connectivity, etc. (Kamp et al., 2020).

In Indian HEIs, Mishra (2020) raised concerns for the digital divide and infrastructural dimensions for teaching through online-educational platforms. Teachers also found it difficult to manage the students when they taught online. Most often, students deliberately created indiscipline by playing music, making noise, posting bad comments through fake users, eating, and playing games in different windows (Punit, 2020). Emergency-remote education during COVID-19 created some educational interruptions that Bozkurt et al. (2020) highlighted in these major themes: (1) the inequity of the digital divide, (2) the need for alternative assessments and evaluation methods, along with the needed switch to formative assessments, through both synchronous and asynchronous means, and (3) the use of online proctoring services to control cheating and academic dishonesty. Moreover, there are institutions that did not even provide clear instructions and directions about the implementation and execution of online classes. They expected older teachers, who may not be technically confident to do online teaching (Sharma, 2020), and hence, teachers were facing conflicts with institutional administrators (Verma et al., 2020), as well as experiencing psychological issues (Kapasias et al., 2020). There are few studies that identify the challenges of emergency remote teaching (ERT), as reflected in the teachers' attitudes.

## Methodology

The research followed the transformative sequential design of mixed research. This research has been primarily surveyed over HEIs teachers, irrespective of their academic positions and nature of recruitment (tenured or tenure-tracked).

## Sampling

The population of the study consists of all HEIs, where ERT has commenced during the COVID-19 pandemic in West Bengal, India. A two-layered, random sampling for selection of HEIs (college/university/institute) and selection of teachers was adopted. The survey questionnaire was prepared using Google Form, and shared through e-mail and WhatsApp.

**Table 1**

*Sample Distribution and Information*

Teacher Age group	Participants	Percentage (%)
Less than 35 years	32	35.9
35 – 45 years	37	41.3
More than 45 years	21	22.8
Total	90	100

## Research Tool

The survey questionnaire was prepared using Google Form. There were two parts: a) an information schedule; and b) a focal open-ended question, "Please cite the two major challenges you encountered while holding online classes."

## Ethical Concerns

Ethical standards were well-maintained in the present research. A detailed description and explanation of the entire research was shared with the teacher respondents, along with a request for any queries that arose, if any, and the ability to contact the author. Consent forms were attached with the online questionnaire, in order to participate in the research.

## Procedure

There had been 180 responses (2 x 90) of challenges in ERT. Qualitative data (text) was analysed thematically to find out the codes. The coding involved identifying the significant issues, understanding phenomena and reducing data, and developing constructs or codes (Saldana, 2013). Once the six (6) codes were identified, the data collected was sorted, or grouped, into these identified codes. The validity of these categories was determined through an inter-rater agreement among the three researchers.

## Results

The qualitative data (text) was analysed, categorized, and transformed into quantitative data (code) for further statistical analysis and interpretation (Bernard, 1996). The challenges teachers faced from online education were coded in Table 2.

**Table 2**  
*Category of Codes*

<b>Codes (ideas)</b>	<b>Category</b>
<i>Technological Equity and Access</i>	The digital divide in society: access to the Internet and lack of uniformity of network connectivity, mobile gender gap; and digital and technological skills among the students and teachers
<i>Knowledge Management</i>	Access to learning material: use of devices to share and organize knowledge (general and subject-specific), with the use of e-learning tools; fulfilment of learning objectives; and the effects of knowledge management among students and teachers.
<i>Access to Classroom</i>	Access and attendance in the classroom (physical and online) in flexible and specific time; and real and proxy attendance faced by teachers.

<i>Pro-Active Class Management</i>	The interaction of the teacher with individual students, and the class as a group (queries and discussion during and out of the class).
<i>Pedagogical Concerns</i>	Course management: assessment of learning and feedback to the students; this also includes the teaching style and approaches to create the learning environment, and the learning tasks between the teacher and the students.
<i>Psychological Issues</i>	The manifestations among the teacher and the students, while mitigating issues related to the technology, pedagogy, and socio-economy, for hosting teaching-learning processes through remote teaching.

To get the quantitative data, textual data was sorted into percentage frequencies for each code category and presented in Table 3.

**Table 3***Distribution of Challenges identified in Teacher Attitude in relation to Age*

Challenges identified through Teacher Attitudes		Teacher Age (responses in %)			
		Less than 35	Falling between 35-45	More than 45	Total
<i>Technological Equity and Access</i>	within Age Group	51.90%	45.30%	40.50%	46.50%
	within Challenges	38.90%	40.30%	20.80%	100.00%
<i>Knowledge Management</i>	within Age Group	1.90%	10.90%	8.10%	7.10%
	within Challenges	9.10%	63.60%	27.30%	100.00%
<i>Access to the Classroom</i>	within Age Group	5.60%	6.30%	10.80%	7.10%
	within Challenges	27.30%	36.40%	36.40%	100.00%
<i>Pro-Active Class Management</i>	within Age Group	18.50%	14.10%	16.20%	16.10%
	within Challenges	40.00%	36.00%	24.00%	100.00%
<i>Pedagogical Concerns</i>	within Age Group	20.40%	21.90%	21.60%	21.30%
	within Challenges	33.30%	42.40%	24.20%	100.00%
<i>Psychological Issues</i>	within Age Group	1.90%	1.60%	2.70%	1.90%
	within Challenges	33.30%	33.30%	33.30%	100.00%
<b>Total</b>	within Age Group	100%	100%	100%	100%
	within Challenges	34.80%	41.30%	23.90%	100%

Table 3 represents the percentage frequency of challenge-identified attitudes under six codes and within each age group. Among the six codes, a total of 46.5% and 21.3% of the teachers accept technological-equity-and-access and pedagogical concerns, respectively, as comparatively important challenging issues. Moreover, 51.9% of teachers who voted for the technological-equity-and-access challenge are of an age less than 35 years. Also, 21.9% of teachers in the 35-45-year-old age group confirmed that pedagogical concerns were a

challenge in ERT. Interestingly, psychological issues take a back seat in teacher attitude, and positive responses towards this challenge are comparatively more common with teachers with an age of more than 45 years.

To explore the association between challenges in ERT and teacher age, the Chi-square test (Challenges X teacher age) of independence was administered using statistical package is presented in Table-4.

**Table 4**  
*Chi-Square Test*

<b>Pearson Chi-Square</b>	<b>df</b>	<b>Asymptotic Significance (2-sided), p-value</b>
5.63	10	0.85*

\* $p < 0.05$

As shown in Table 4, the test assured no association ( $p < 0.05$ ) between challenges and teacherage at a 0.05 level of significance. This result is further strengthened with symmetric measures to test for association between challenges and teacher age, as given in Table 5.

**Table 5**  
*Symmetric Measures (Challenges X Teacher age)*

<b>Nominal by Nominal</b>	<b>Value</b>	<b>Approximate Significance</b>
<i>Phi</i>	0.191	0.845*
<i>Cramer's V</i>	0.135	0.845*
<i>Contingency Coefficient</i>	0.187	0.845*

\* $p < 0.05$

As shown in the above table, phi value ( $\phi=0.191$ ), Cramer's V value ( $\phi_c=0.135$ ), and the contingency coefficient ( $C=0.187$ ) confirmed a weak association of these categorical variables at a 0.05 level of significance.

### **Discussion and Conclusion**

In addition to the challenges, issues, and concerns discussed in previous research (Bozkurt et al., 2020; Mishra, 2020; & Sharma, 2020) regarding ERT, the present results point out that teachers also face psychological challenges, like depression, health hazards, and (Kapasia et al., 2020). However, the present study reveals that psychological concerns may not be deemed as potential challenges, whereas few teachers point out health issues caused from ERT. However, technological equity and access is known to be a challenge with

greater concern among HEI faculty. It becomes more disastrous to the academia of a nation, when it is coupled with the suffering of the socio-economically challenged families. In this newly implemented era of e-teaching-learning, there may be only one device in the family, or sometimes no device at all (Gurung, 2021; Mani, 2020), which limits access to regular online classes and keeps students out of institutions.

The small sample size has limited the scope of generalization of these results. Moreover, the methodology of this research may have restricted the ability to identify more challenges that were instrumental during ERT. We also propose that future research endeavours to find out the advantages of online teaching as a viable option during pandemic and post-pandemic education. The observations of ERT over a greater duration might have brought out some of the more exhaustive challenges during the COVID-19 pandemic. Hence, a longitudinal study may be conducted in the future, in order to get a clearer picture of the ERT challenges during the pandemic of COVID-19. There may be mediating factors, other than teacher age, that may be instrumental in determining teachers' attitudes towards ERT.

Regular refilling of data packs and upgraded electronic gadgets are major concerns among students (Nair, 2020). Moreover, the stakeholders (teachers and students) need to have the skills to utilize such a mode of online teaching-learning (Milosievski et al., 2020). An early intervention, on the part of the public and private stakeholders in academics, is required in this moment of emergency. The governance at every level (local, state, and federal) should give the effort to develop information technology and communication (ICT) infrastructures. up-gradation, and orientation of teachers to enhance their technological skills and online teaching skills. In sum, courses and programs are needed to orient the faculty at HEIs for pedagogy that is to be employed during remote teaching, which may mitigate the perceived challenges.



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