



COVID-19: Challenges and Opportunities for Indian Higher Education.

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Abstract:

The COVID-19 epidemic has wreaked havoc on the world's higher education system. It has also presented a major threat to the current higher education system in India. All of the country's universities and colleges are now educating their pupils through online platforms because of the COVID-19 pandemic's rapid expansion. Although the odds were against it, the government has made tremendous success in providing higher education to students through online means. Online education's future quality will be improved by having more people with a technological background on staff. All kinds of methodologies, from rigorous structural analysis to synthesis to generalization and experimentation to surveys, were used in the study. It was during the COVID-19 epidemic that 87 university professors were surveyed about their online teaching experiences, and their replies were then examined and compared. It was revealed that students and academic staff were unable to perform an effective online education process because of their lack of online learning preparation, based on comments from participants. These last two issues were the most significant obstacles to the implementation of an efficient online education process. More than 80% of those who took the survey mentioned how different digital teaching approaches are from more traditional ones.

Keywords: COVID-19 Pandemic, Higher Education, Online Teaching-Learning, Challenges, Opportunities.

1. Introduction

The Covid-19 pandemic has had a devastating impact on the education industry throughout the globe. Over two billion students were compelled to continue their education online after nearly all schools and institutions throughout the globe were forced to halt face-to-face instruction. The majority of nations were neither prepared for this crisis nor were they equipped for successful online education. Because of the epidemic, higher education systems throughout the world have had to adjust to new realities. The investigation was also severely impeded. Students, faculty, and their families were not the only ones impacted by



the closure of universities and colleges; it also exacerbated social and economic issues across the globe. Physical distance, food safety, digital learning, and social difficulties have all been confined to the home setting... To prevent the spread of COVID-19, it was essential to close down all educational institutions in the affected areas. Travel from China to other countries was a major factor in the spread of the virus, which was initially detected in Wuhan City, China, in late December 2019. The first incidence of COVID-19 was reported in India on January 30, 2020. Long and short-term exchange programmes are common for academics to participate in while overseas. There are student exchange programmes in place at universities throughout the nation and abroad. The majority of college students use public transportation to and from class and their residence halls on a regular basis. More than 400 million students are engaged in higher education in India, of whom 38 million are enrolled in college or university. Over 40,000 colleges and universities make up Indian higher education, making it one of the world's most extensive systems of higher learning. Day scholars make up a significant portion of the student body, and as a result, they regularly come into touch with the older population, increasing the risk of the virus spreading. Closing all educational institutions to prevent the virus from spreading among children and the elderly was thus a logical decision.

2. Review of Literature

Colleges and universities are under pressure to show that they are attentive to the needs of the people who use their facilities. Government agencies, accrediting organizations, and other stakeholders have raised the standard for higher education institutions, thus there is more pressure on them to perform at a higher level than before (Ludeman et al., 2009). Universities must show that their educational administration is successful and efficient in order to satisfy stakeholders who want proof that their promises of quality and effectiveness are true. To put it another way: when things change around us—including the recent pandemic—we need a lot of research to figure out how colleges and universities should respond to the present educational, economic, and employment challenges. Researchers are in great demand for study on the educational system's role in the COVID-19 outbreak. We must use these opportunities to better track and record the services and activities provided to children. There have been several advancements in higher education, but none have been put to the test in their entirety (Hunt & Eisenberg, 2010). The utilization of university counselling centres, for example, has been the subject of very few research (Hinderaker, 2013). The provision of



mental health services on college campuses in the Philippines, both nationally and locally, needs to be studied more thoroughly. As a consequence, student success relies heavily on study, evaluation, and long-term planning. Future demands for information crucial to transparency and accountability will be met by these investigations (Ludeman et al., 2009). We need to work together as a community of academics and researchers so that we can record and develop evidence-based practice while also boosting student learning at Philippine institutions during the COVID-19 epidemic or any other virus that may be on its way.

3. Research Methodology

This review utilizes a wide scope of logical and instructive examination strategies, including orderly primary investigation, blend, work with papers, speculation of involvement and test work, perception, studies, and so on. There were 87 university lecturers that participated in this research. The study's participants included 20 young scientists under 35, 52 instructors between the ages of 36 and 55, and 15 teachers above the age of 55.

Objective of the study:

- To identify and examine the difficulties instructors in India encountered following the debut of online programmes during the COVID-19 epidemic in order to determine teachers' ability to effectively utilize e-learning.

4. Data Analysis And Interpretation

Teachers' perspectives on online teaching and learning during COVID-19 are explored in this part along with the obstacles they experienced as well as their degree of preparation to use online teaching.

Seventy-five percent of the participants in this research hold a degree (candidate/doctor of sciences), and the majority teach both bachelor's and master's level courses in Engineering and Humanitarian Sciences. The instructors in this study ranged in age from 25 to 65.



Table 1 Contains Information on the Participants' Individual Backgrounds.

Table 1. Summary of participants' characteristics.

		Number of Participants	Percentage
Age	25–35	20	23%
	36–45	30	35%
	46–55	22	25%
	56–65	15	17%
Education	Postgraduate degree	15	17%
	Cand. of sciences	50	58%
	Doctor of sciences	22	25%
Teaching Experience	3–10	15	17%
	11–20	25	29%
	21–30	32	37%
	31–40	15	17%
Gender	Male	37	42%
	Female	50	58%

In order for teachers to be ready for online learning, they need to be computer literate and have the capacity to utilize ICTs effectively. Teachers were asked to rate their own degree of computer literacy on a scale of 1 (poor) to 5 (outstanding) as part of the questionnaire (Table 2).

Table 2. The assessment of teachers' computer literacy level.

	Skills	N	Mean	St. Dev.
1	Ability to use search engines	87	4.30	0.70
2	Ability to install software	87	4.30	0.80
3	Access to high-speed internet at home	87	4.80	0.70
4.	Ability to use the internet for academic research purposes	87	4.20	0.70
5	Word Processing	87	4.60	0.50
6	PowerPoint Processing	87	4.50	0.60
7.	Ability to use the network to communicate and share data with others	87	4.30	0.80
8.	Familiarity with Learning Management System (LMS)	87	4.10	1.09

Search engines (mean = 4.3), word processing (mean = 4.6), and network communication and data sharing (mean = 4.3) all scored excellent marks from the participants when it came to



their level of literacy in computer use. Moodle was the only LMS that most people had prior experience with (mean = 4.1), according to the survey. With a Cronbach's Alpha score of 0.78, the survey was found to be dependable.

When questioned about their views and preparation for online teaching during the COVID-19 epidemic, instructors who took part in the research were asked to answer a series of questions (Table 3). Use of a 5-point Likert scale ranging from 1 (entirely disapprove of) to 5 (entirely agree) was used.

Table 3. Teacher's readiness to implement e-learning.

Questions	N	Mean	St. Dev.
I have sufficient knowledge and skill to use e-teaching during the COVID-19 pandemic	87	3.70	0.70
I have experience in using e-learning	87	3.80	0.90
I prefer conventional learning than e-learning	87	4.30	0.80
I need to learn how to use my computer for e-learning	87	2.60	1.07
The use of e-learning during this pandemic is not convenient for me	87	4.30	0.80
My discipline is suitable for e-learning	87	3.80	0.80
E-learning is a waste of time during this pandemic	87	1.90	1.13
Teaching online differs greatly from conventional teaching	87	4.70	0.50
I have troubles designing learning materials for an electronic environment	87	4.10	0.90
I lack skills of efficient communication with my students online	87	3.50	1.14
The University provides technical support for e-learning	87	4.30	0.50



The platforms chosen by the University to support e-learning are easy to use	87	3.50	1.04
The platforms chosen by the University include the necessary features and functions I need	87	3.30	1.07
There are enough and clear instructions/training about how to organize a digital educational process	87	3.80	0.80
I receive a satisfactory and timely response from the IT services staff	87	4.20	0.80
I feel the lack of computer literacy skills	87	3.60	1.01
The preparation of electronic education content is very time-consuming	87	4.70	0.30
It is difficult to adopt new teaching methods within days	87	4.60	0.40
I feel the need to be taught how to work in a digital educational environment	87	3.90	1.04
E-teaching and learning during the coronavirus outbreak brings more advantages than disadvantages	87	2.20	1.17

An overwhelming majority (mean = 4.7) of those who took the survey agreed that creating educational material for online delivery is more time demanding than teaching in a traditional classroom. When it came to their ability to employ e-learning and teaching during the COVID-19 epidemic (mean = 3.7), participants were enthusiastic. E-learning is a familiar topic for most of them (mean = 3.8). For the most part, respondents (mean = 3.9) agreed that students needed instruction on how to operate in a digital educational setting. An alpha of 0.82 by Cronbach's alpha indicates the reliability of these results

Participant evaluations ranged from 1 (completely disagree) to 5 (absolutely agree) for students' performance in a digital educational environment (Table 4).



Table 4. Students' performance online during the COVID-19 pandemic.

Questions	N	Mean	St Dev.
My students have sufficient knowledge and skill in the use of e-learning during the COVID-19 pandemic	87	3.80	1.15
My students are able to perform tasks in the platforms chosen for e-learning	87	4.40	0.60
My students face some technological problems when taking part in the electronic educational process	87	4.30	1.04
My students lack motivation to study online	87	4.10	0.70
My students are enthusiastic to take part in webinars and online discussions	87	3.00	0.90
My students fail to meet deadlines	87	4.30	0.60
My students experience psychological discomfort studying online during the COVID-19 pandemic	87	3.00	0.90
My students do not have devices/high-speed Internet connection for the use of e-learning	87	2.30	0.50
I feel that my communication with the students online is not productive	87	2.40	1.23

There were three common themes among participants when it came to describing how students performed in an e-learning environment during the COVID-19 pandemic: they had adequate knowledge and IT skills, but they missed deadlines frequently (mean = 4.3), and they were unmotivated to study online (mean = 4.1). The questionnaire has a Cronbach's Alpha score of 0.89, indicating its reliability.

As a final element of the study, instructors were asked about their experiences with online learning during the COVID-19 epidemic and their issues, obstacles, and overall views of the experience. Individual interviews conducted online using Microsoft Teams elicited answers to open-ended questions from the participants. There was a strong desire to keep students engaged in learning, and instructors worked hard to alter the regular curriculum so that lectures were not only an administrative obligation, but rather a productive process of knowledge acquisition. Instructors join online because of the academic challenge and personal incentive to learn new technology.



It was found that almost everyone agreed that standard teaching abilities and competences are not enough to ensure the success of online education. A teacher's function is shifting in the online classroom, as one of the respondents noted: "A teacher's job is shifting. A teacher becomes a facilitator who may utilize various online platforms to publish study material, multimedia resources, establish deadlines, conduct different sorts of activities, and contact with students 24 hours a day." It was noted that "while teaching humanitarian subjects and foreign languages, there is a considerable demand for collaborative projects for students—pair work; small group talks; etc. It seems to be very hard to schedule this face-to-face constructive contact given that we utilize LMS Moodle and Microsoft Teams to conduct online courses". "To teach online effectively, one needs be prepared to employ a big range of online programmes to plan a productive lesson, including multiple LMSs, web applications, and so on," says another. Our research will require a considerable amount of time and effort." Concerns raised by respondents about online teaching and learning included the following in their assessments: (Table 5).

Table 5. Advantages and disadvantages of online teaching.

Advantages	Disadvantages
Educational process flexibility (68%)	Inability to use a number of educational methods available in an offline class (discussion in small groups, group discussions, etc.) (77%)
An opportunity to reuse recorded educational material (videos, presentations, etc.) (46%)	Limited communication with students (71%)
Professional development (46%)	Online/video classes are not an effective alternative to the conventional educational process (61%)
Interactive format (32%)	
An opportunity to try new technologies (15%).	



This study's findings demonstrate that when it comes to integrating online education, the majority of respondents have run across a number of roadblocks that seriously hamper effective digital learning. The relevance of development programmes cannot be overstated.

5. Conclusions

Higher education in India and throughout the globe is now in a state of flux, necessitating a concerted effort to strengthen the technical and methodological proficiency of university faculty in order to better support online instruction.

As a result of these issues, India's higher education system has had to undergo a major rethinking of the way it teaches. In a digital educational environment, new instructional activities, centred on cooperation between instructors and students, and effective use of current technology are essential to a successful educational process. As a result, university lecturers should be prepared for the COVID-19 pandemic by using LMS, ICT tools, etc. to monitor and assess students' educational activities online, as well as to conduct online conferences, webinars, and other educational activities.

Students and university administrators both face challenges when converting the curriculum to an online format. According to the conclusions of this research, instructors and students' willingness to utilize online education was the most significant. There are a lot of unanswered issues that need to be addressed as soon as possible. Online education becomes a tool to safeguard the health and lives of all those involved in the educational process in the wake of the COVID-19 outbreak. Only time will tell whether the Indian educational system is prepared for this rapid shift to the internet. In order to understand the existing situation and come up with feasible remedies, this research serves as the initial step.

A number of drawbacks are evident in this research, the most significant of which concerns the study participants. There were no students or parents present. The difficulties instructors face while adopting online teaching and learning must be understood in order to be prepared to cope with them, we believe. It is imperative that future studies investigate how students see online education.



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