

Revamping E-Learning among Professional Students: The Pandemic Effect

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Abstract

The impact of pandemic COVID-19 is observed in every sector around the world. The educational sector of India, as well as the world, is badly affected. It enforced the worldwide lockdown creating a very bad effect on the students' life. Around 32 crore learners stopped moving schools/colleges, all educational activities halted in India. The outbreak of COVID-19 proved that change is inevitable. It worked as a catalyst for educational institutions to grow and opt for new platforms and techniques. The educational sector has been fighting to survive the crisis with a different approach by digitalizing the pedagogy through online platforms. The present study is designed to understand the student's perspective about factors influencing online classes conducted at the university level. And to find out general challenges faced by the students in E-learning. The data were collected from 98 professional students from different engineering colleges in the Malabar region. Career Development Programs and Social problems are the major problems faced by the students.

1. Introduction

According to Huang et al. (2020)ⁱ, a novel coronavirus, known as Covid-19, was discovered in the last month of the year 2019, in a seafood market in Wuhan. The virus's clinical analysis results showed person-to-person transmission (Wang, Zheng, et al., 2020)ⁱⁱ. The COVID-19 outbreak has had a profound impact on the world's education system and closed the doors of many schools and universities. Undoubtedly, the spread of COVID-19 created huge challenges for the world's educational systems that nobody has seen since the development of technology and distance instruction. This pandemic has forced the global physical closure of businesses, sports activities, and schools by pushing all institutions to migrate to online platforms (E. Lugori et al., 2020)ⁱⁱⁱ. Online learning is the use of the internet and some other important technologies to develop materials for educational purposes, instructional delivery, and management of the programs (Fry, 2001)^{iv}. The education systems faced challenges that shifted them toward using online learning while they were not prepared for that. Early March 2020, the spread of the COVID-19 caused all

universities and schools to be closed following the health protocols and presidential directive. It continued after the new year holidays, in the middle of April 2020, from elementary, secondary, high school education to universities. As a result of the new situation, administrators of schools and universities had no option except to instruct teaching staff to use various applications for online teaching. Indeed, given the problems caused by COVID-19 in the world, online education is the best method to teach various courses: since this type of training has been growing for years, and it has provided new opportunities for students, professors, and educational planners and institutes (AF Mayadas, 2009)^v. The need of this study is to understand the challenges faced by the students during the COVID-19 pandemic situation. As the online teaching-learning process has become more prevalent in India due to COVID 19 pandemic, it becomes particularly important to know the factors that influence E-Learning among professional students. The present study was therefore designed to understand the student's perspective, attitudes, and readiness about online classes being conducted at the university level.

2. Review of literature

Digital transformation of Higher Education institutions is a topical issue that several stakeholders of education must feel concerned about, abilities to apply ICT in every sphere of life are on an incremental level, thus universities must be up to the task of preparing potential professionals to be able to face challenges and provide solutions (Bond et al., 2018^{vi};) and this transformation has suggested the integration of sustainable management to be able to adjust to the modifications enforced as a result of novel technologies (Abad-Segura et al., 2020)^{vii} and pandemic recently. Digital transformation in the context of higher education institutions can be regarded as the summation of all digital processes required to accomplish transformation process that gives higher education institutions the opportunities to positively apply digital technologies optimally (Kopp et al., 2019^{viii}). Covid-19 pandemic initiated the digital transformation of higher education, and because of the crisis brought by the Covid-19 pandemic, novelties in higher education that would typically take many years because of differing managerial regulations were presented quickly within a limited number of days (Strielkowski, 2020^{ix}) and this has also turned the branding of online learning as a disruptive process to a “messiah” status.

Many empirical studies have been conducted to examine the quality of online courses from various aspects. Studies have identified and examined critical issues affecting the quality of online education such as communication, technology, time management, pedagogy, and assessment (Bassoppo-Moyo, 2006^x;) However, the literature about online education needs literature reviews that further synthesize and integrate the empirical studies’ results and provide an integrative report on existing challenges in teaching online courses. Often online educators must go through the daunting task of sifting through the increasingly expanding literature to identify these issues for themselves (Mayes, Luebeck, Yu Ku, Akarasriworn, & Korkmaz, 2011^{xi}). Brooks (2003^{xii}) referred to the attitudes of instructors as a major issue affecting teaching online courses. Arbaugh (2005^{xiii}) considered technology, behavioral characteristics of the learners, and instructors’ teaching style as

essential challenges. Jacobs (2014^{xiv}) suggested that the assessment of students is a major issue in online courses. Yueng (2001^{xv}) referred to the instructor and student support, course development, course structure, and how the institution evaluates online learning as major issues. Learners may feel isolated and disconnected in online courses (McInnery & Roberts, 2004^{xvi}), which may affect learning. Learners’ nature of participation and engagement in online settings is another major issue discussed by researchers. Online listening or observing is a complex phenomenon and a substantial component of learners’ participation in online discussion. A group of researchers in their study of 96 participants in 3-week online undergraduate courses found that learners spent three-quarters of their time listening or observing in online discussions (Wise et al., 2013^{xvii}).

However, for many professors and universities, online education has its specific issues and challenges, including unfamiliarity with new technology and methods of dealing with unknown challenges (LA Maggio, 2018^{xviii}). While earlier resource challenges such as technology, faculty, and staff availability are no longer dire (Crawley et al., 2009^{xix}), there remain areas to be addressed, such as effective teaching style. In 2001, researchers came up with seven principles for effective online teaching which were adapted from longstanding face-to-face principles. These principles include good faculty-student interactions, setting expectations for interactions, and the overarching theme of the seven principles, the expectation of interaction both between faculty and students and students and their peers (Graham, Cagiltay, Lim, & Craner, 2001^{xx}) Another challenge outlined Anderson et al. 2011^{xxi}) is the almost non-existence of institutional expectations for their online courses. These include expectations of teachers, students, courses, and staff. Without clear guidelines and expectations for faculty members to follow there is no way to assess the effectiveness of these online courses.

4. Objectives of the study

- To study students’ perceptions of the factors influencing E-learning.
- To study the challenges faced by professional students during Covid 19 Pandemic.

5. Methodology

This study aims to study the perception of students about factors influencing the e-learning facilities among professional students. The study also focuses on the challenges faced by the professional students during Covid 19 pandemic. A sampling size of 98 was from colleges from the Malabar region. Purposive sampling was used for the study. The filled-up

questionnaires are collected from 40 respondents to test the reliability and it is found

that Cronbach's Alpha is .763, The two questions which are not reliable were, omitted and the rest of the questions were included in the questionnaire and further discussed with experts. A major objective of the pilot study was to reduce the number of survey items, as well as to determine whether certain questions could be used to measure specific underlying dimensions. Results of the pilot study show that Cronbach's alpha of constructs was above seven which is a cut-off criterion. (Hair et al. 2010).

6. Analysis

6.1 Demographic profile of the respondents

Table 1

Demographic Profile of the respondents

GENDER	NO: OF RESPONDENTS	PERCENTAGE
MALE	62	64
FEMALE	36	36
REGION		
URBAN	42	46
RURAL	54	54

The demographic profile of the surveyed respondents is shown in Table 1. The gender distribution of response is 64 percent for males and 36 percent for females. The location of the respondents is also taken into

consideration that is 46 percent are from urban areas and 54 respondents are from rural areas.

6.2 Student's perceptions on the factors influencing E-learning.

To identify the factors influencing the E-learning correlation test was carried out.

Table 2

** Correlation is significant at the 0.01 level (2-tailed).

	Factors influencing online learning	Technology	Time Management	Quality	Evaluation process
Pearson Correlation	1	.702**	.661**	.639**	.659**
Sig. (2-tailed)		.000	.000	.000	.000
N		98	98	98	98

From the table, it can be identified that the coefficients are positive, meaning that the variables vary together in the same direction, with a significant moderate correlation between E learning and Technology ($r = .702$, $p < 0.01$).

The correlation between E learning and Time Management ($r = 0.661$, $p < 0.01$), E learning and Quality ($r = 0.639$, $p < 0.01$), E learning and Evaluation Process ($r = 0.659$, $p < 0.01$), are statistically significant at the 0.01 level.

6.3 Correlation test for social problems and their dimensions

Pearson's correlation analysis was used to identify the degree of association between

variables. According to the correlation coefficients (r) similarity was generally observed between the dimensions of social problems.

Correlations

		Isolated Learner	Lack of interaction between classmates and teachers	Online Malpractices	Social problems
Social problems	Pearson Correlation	.561**	.663**	.568**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	98	98	98	98

**, Correlation is significant at the 0.01 level (2-tailed).

Table 2

From table 2, it can be identified that the coefficients are positive, meaning that the variables vary together in the same direction, with a significant moderate correlation between Isolated learner, Lack of interaction between classmates and teachers, Online malpractices, and social problems.

6.4 Correlation test for health problems and their dimensions

According to the correlation coefficients (r) for dimensions of health problems that arrived due to the online learning program a similarity was generally observed between physical problems, depression, and irregular sleep.

Table 3

Correlations

		Physical Problems	Depression	Irregular sleep	Health problem
Health problem	Pearson Correlation	.795**	.750**	.756**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	98	98	98	98

**, Correlation is significant at the 0.01 level (2-tailed).

From table 3, it can be identified that physical problems, depression, and irregular sleep are

significantly correlated with health problems faced by the students.

6.5 Students' perception of challenges faced in E-learning.

	Problems faced by students	Social problems	Health problems	Group Assignments	Career Development Programs
Pearson Correlation	1	.503**	.487**	.487**	.580**

Sig. (2-tailed)		.000	.000	.000	.000
N		98	98	98	98

From the table, it can be identified that the coefficients are positive, meaning that the variables vary together in the same direction, with a significant moderate correlation between problems faced by students and Career Development programs ($r = .580$, $p < 0.01$). The correlation between problems faced by students and Group assignments ($r = 0.487$, $p < 0.01$), problems faced by students and social problems ($r = 0.503$, $p < 0.01$), problems faced by students and Health problems ($r = 0.487$, $p < 0.01$), are statistically significant at the 0.01 level.

7. Results and Discussions

The present research has shown that technology, time management, quality, and evaluation process are the most important factors that influence the e-Learning process. Among these four variables, technology is the most correlated variable to e-learning. Social problems, health problems, group assignments, and career Development Programs are the general challenges faced by professional students. In social problems, lack of interaction among the classmates and teachers is the main challenge faced by the students followed by malpractices and isolation. The students are also facing health problems like physical problems, irregular sleep, and depression. The reflections throughout this paper potentiate the ability for the student perception on E-learning. There remain several opportunities to minimize student barriers to participation even with differing levels of facilitator technological confidence and competence. The importance of continued critically reflective academic practice to assure the best learning outcomes possible for all student cohorts is also emphasized in focusing on social relationships and community building in the online environment, rather than a dominant concern with the technological complexities of the online space. In doing so, some of the student anxieties and issues associated with external delivery modes may be overcome and benefit

the students through the pedagogical methods employed in the online environment. In India, E-learning was not much popular, but the impact of this pandemic affected the education sector badly like any other sector. This change is inevitable, and we must continue the online learning process. Considering the perception and challenges of students, strategies must be formulated by Higher education institutions.

8. Conclusion

Due to the Covid-19 pandemic, many new modes of learning, new perspectives, new trends emerge and the same may continue as we go ahead to a new tomorrow. So, some of the post-Covid-19 trends which may allow imagining new ways of teaching-learning of higher education in India are outlined. Some fruitful suggestions are also pointed to card-carrying educational activities during the pandemic situation. Online learning is one of the new innovative study methods that have been introduced in the pedagogy field. Students can now learn remotely using the internet and computers. E-learning can enable people to study independently irrespective of where they are in the world. Even though the use of computers and other such devices for learning leads to physical health problems and Internet plays a vital role in E-learning. Teaching and Student assessments have moved online, with a lot of trial and error and uncertainty for everyone. Many assessments have simply been canceled. Importantly, these interruptions will not just be a short-term issue, but can also have many long-term consequences. Teachers need socio-emotional support to face the pressure being put to deliver learning in a time of crisis as well as support their students' emotional needs. Going forward, digital education is likely to be integrated into mainstream education. This will enable inclusive education by facilitating learning across diverse geographies in India. Moreover, it will provide an opportunity for educators to come up with customized learning solutions for every student.

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