Research Article

COVID-19 Outbreak: eLearning Resources and Online Classes, Advantages and Disadvantages

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Abstract

The purpose behind this quantitative research was to explore the experiences of students in order to study how students assessed their ability to examine the physiological, cognitive and behavioural responses experienced by students during lockdowns. The research information was gathered by using Google online questionnaire. A total of 156 students from various regions of India were classified as Graduate, Postgraduate Ph.D.s, and Post-doctorate based on educational degrees. Information was collected, categorised as (1) Demographic data; (2) Activities during lockdown; (3) Resources used by students and the effects of it during COVID-19 and statistical analysis was used for the factual analysis of the data. According to the current study result, female respondents used to like watching television, reading /writing and using social media though male respondents were engaged with playing computer games, doing exercise and yoga and cooking. After the crisis, we need to continue our education that way.

Keywords: COVID-19, Pandemic, Crisis, Mode of study.

Introduction

It is a stressful time when schools around the world are shifting to a virtual teaching-learning mode in an attempt to fight the consequences of the pandemic. Besides that, there is nothing quite like confronting communication and participation by exchanging unique ideas and experiences from life, gatherings to create innovative thoughts in the classrooms. Staying secure at home is the dire necessity of the time. The unexpected change in the learning process into digital approaches has been implemented in order to maintain the university track even if trying to avoid people crowding and the significant threat of the spread of infection. Students and teachers work consistently to adjust and make the learning process enjoyable, productive and absolutely essential by means of online lectures ("COVID-19 lockdown: How students are coping with the online classes and syllabus").

Effect of Covid-19 on Educational Institutes

According to UNESCO, since the COVID-19 invasion began, school and

university shutdowns have impacted approximately 1.37 billion learners in 138 nations worldwide. The classroom is therefore no longer accessible to around 60.2 million school teachers and university professors. Italy was the very first European country to close down its universities immediately and switch online learning (Zubascu, 2020).

Emerging eLearning in India during Covid-19 Outbreaks

COVID-19 pandemic has broken an enormous part of India's education system. In consideration of the crisis caused by COVID-19, all courses, examinations, and public meetings of central and state universities have been scrapped by the MHRD.

It is also tough to anticipate how schools, colleges and universities will reopen. There are barely any alternatives apart from to keep moving from the typical face-to-face phase of academic learning to advanced digital platforms.

The new reality can be more troublesome for educational institutions that are not so accustomed to the digital manner. E-learning creates a challenge to creativity and accessibility for both teachers and students, but it ensures everyone involved with worksheets, online lectures and assignments. Students in urban areas and cities are centred on PCs and cell phones as educators take to online application for lectures, tutorials and evaluations ("Coronavirus: In the time of the pandemic, classes go online and on air").

In order to assist students, some organisations are transferring sessions to YouTube, whereas Kendriya Vidyalaya Sangathan is transmitting its Swayam Prabha portal, which has DTH and internet lectures. Andhra Pradesh is seeking to reach Doordarshan to minimize major obstacles to access. The Zoom application has been embraced by several organisations, others by Google Classroom. However, the teachers cannot say how productive these are because not all students are configuring ("Coronavirus: In the time of the pandemic, classes go online and on air").

The Most Common Problems during Online mode Study

University reports state that some departments are recently organising Zoom accounts, a possible direct form for video conferencing. In addition, the university is focusing on this initiative, amending its schedules to the latest teaching strategies (Zubascu, 2020).

- Poor internet connections with video sustained freezing are the technical issue, seeking to make for a rough course experience.

- While studying at home anywhere students might be, there seems to be more interruptions than expected, including to family.

- The rapid transition to online education has made some students concerned about some criteria for the curriculum whether they need to complete science classroom labs.

- The lack of confronting with both teachers and classmates can be especially challenging.

- The technique would have never

been mostly used by professors and students previously ("Tackle challenges of online classes due to COVID-19").
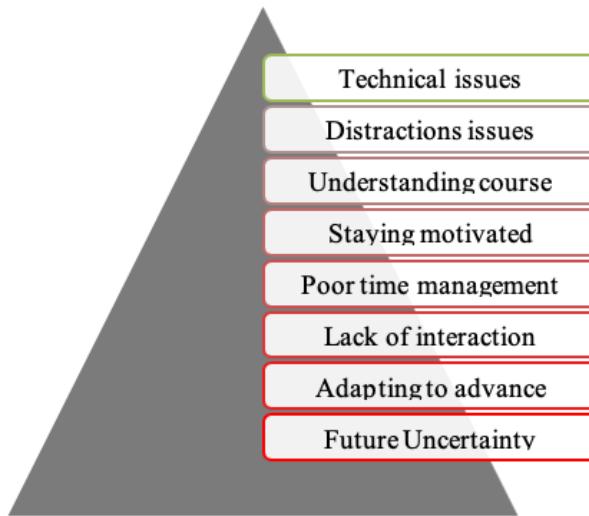

Figure-1: Problems during Online mode Study

Methods and Materials

A Google online survey questionnaire was developed to assess the online / e-learning study response of participants during the COVID-19 epidemic. The online survey was circulated to students from universities in various states of India.

Sample

The questionnaire had been sent to 200 students to gather all the relevant information, and 160 of them responded. There were 4 insufficient responses, so they were not included. A total of 156 participants from various parts of India were listed mostly on criteria of educational degrees as graduates, postgraduate, PhDs, and post-doctoral students.

Procedure and Survey Development

An informed consent was submitted by all participants. The self- structured questionnaire includes questions covering multiple areas: (1) Demographic data; (2) Activities during lockdown; (3) Resources used by students and their effects during COVID-19. Socioeconomic details were gathered throughout the covid for 19 pandemic days on gender, age, education, residential area.

Statistical Analysis

Statistical analysis using SPSS 21.0 was done. For results, descriptive statistics, means, and frequency distribution were used. To measure the relationships among gender and activities during lock down, Independent t-test was used, both analyses were two-tailed, with a statistical significance of $p < 0.05$. The relationship among the variables, mode of study and different conditions was assessed. With p-value, the degree of significance was obtained.

Results and Discussions

Responses from 156 respondents, belonging to different states of India were gathered. Overall, 156 respondents submitted the questionnaires within 10 days.

Demographic data

Table-1: Demographic Profile of Respondents

S. No.	Category	Frequency	Percentage
Age			
1.	15-20 years	10	6.4
2.	20-25 years	100	64.1
3.	25-30 years	24	15.4
4.	30-35 years	12	7.7
5.	35-40 years	10	6.4
	Total	156	100.0
Gender			
1.	Male	42	26.9
2.	Female	114	73.1
	Total	156	100.0
Degree			
1.	Graduation	24	15.4
2.	Post-graduation	86	55.1
3.	Doctoral	40	25.6
4.	Post docs	6	3.8
	Total	156	100.0
Stay with			
	Family	108	69.2
	Friends	20	12.8
	Alone	28	17.9
	Total	156	100.0

Table-1 summarizes students' demographic information. Majority of the respondents were aged 20-25 years (64.1 percent), followed by 25-30 years (15.4 percent), 30-50 years (7.7 percent) and 35-40 years (6.4 percent). There have been 114 (73.1 percent) female respondents in total and just (26.9 percent) males. The participants were from various states of the nation. Majority of the respondents were post-graduated (about 55 percent) followed by doctorate about 26 percent, followed by graduates 15.4 percent and only 4 percent respondents were post-doctorate. It shows the various places of stay where they are actually staying due to the pandemic of COVID-19. During COVID-19 pandemic outbreak, the highest majority of respondents (about 69 percent) lived safely with their family, approximately 18 percent lived alone in

rented rooms or hostels followed by living with friends (13 percent), nobody from the respondents stayed with their friends.
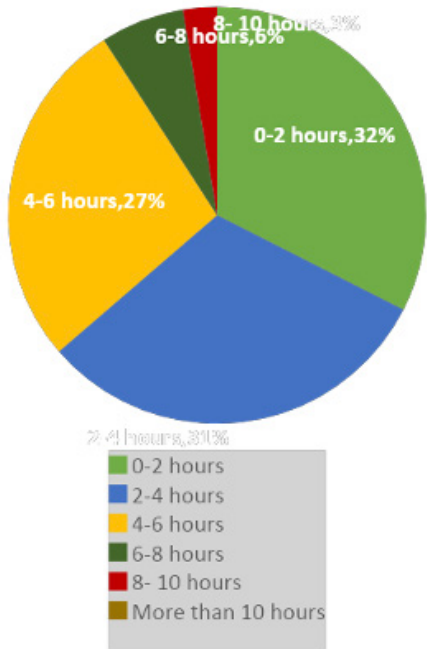
Study duration during covid

Figure-2: Study duration during COVID-19 outbreak

Figure-2 indicates majority of the participants (64.1 percent) studied 0-2 hours accompanied by the second majority studying 2-4 hours per day at home, out of them (27 percent) studying 4-6 hours, 6-8 hours (6 percent) and just a few of them (3 percent) studying 8-10 hours at home.

Table-2: Gender of the respondents affects activities during lockdown

S. No.	Activities during lockdown	Gender of the Respondents		F value	P value
		Male	Female		
		Mean ± S.D	Mean ± S.D		
1.	Watching TV	.57 ± .501	.70 ± .460	5.853	.017
2.	Playing Computer games	.33 ± .477	.18 ± .382	14.243	.000
3.	Reading/writing	.81 ± .397	.96 ± .185	47.053	.000
4.	Cooking	.86 ±.354	.82 ±.382	.974	.325
5.	Exercise/Yoga/Meditation	.76 ± .431	.72 ± .451	1.219	.271
6.	Social media and Internet	.90 ±.297	.95 ±. 224	3.600	.060

There is a strong gender disparity in time usage between work and household tasks – men are more prone to engage in jobs and females in domestic chores (Winn & Heeter, 2020). Participants were asked to estimate activities involved in different leisure and non-leisure activities. Non-leisure activities tasks comprised time spent at reading/ writing, playing computer games, doing exercise yoga meditation and cooking while leisure activities included watching television, using social sites, and playing games.

The association between the different activities during lockdown and the gender of the respondent has been examined in Table 2. As people face isolation time at home, this led to an ideal condition to be involved in watching television (Dixit et al, 2020). Female participants were found to watch T.V higher than male students, which indicates the important correlation (p = 0.017) that women are more likely to watch TV, whereas males (μ = 0.33) were found to be even more interested in video games than female students (μ = 0.18), and that's highly significant (p = 0.000) at the level of 0.01. Male gender seemed to be more active in playing computer games in another research finding (Winn & Heeter, 2020). The majority of the students were female, followed by male students (μ = 0.81), who spent their full time reading and writing (μ = 0.96). This also illustrates the highly significant relation through lockdown with female students and reading / writing activities. In developed countries, studies have shown that girls have less time for leisure activities than boys and have a higher workload at school and at home (Levison et al. 2001; Ritchie et al . 2004). It is evident from the data that male students did more activities such as exercise/yoga/mediation than female respondents in their spare time, although it was not considered to be significant. Networking sites and the internet naturally get quite relevant for the modern scenario. Almost nothing would be possible without the internet for the present generation. Nowadays, almost nothing is going to be possible without the internet. There has been an enhanced use of social sites in the current circumstances of the COVID-19 pandemic with an international quarantine state, as individuals have nothing else to do (Dixit et al, 2020). In our research, women have been observed to have much more exposure to social sites than male respondents whatever the reason behind it be.
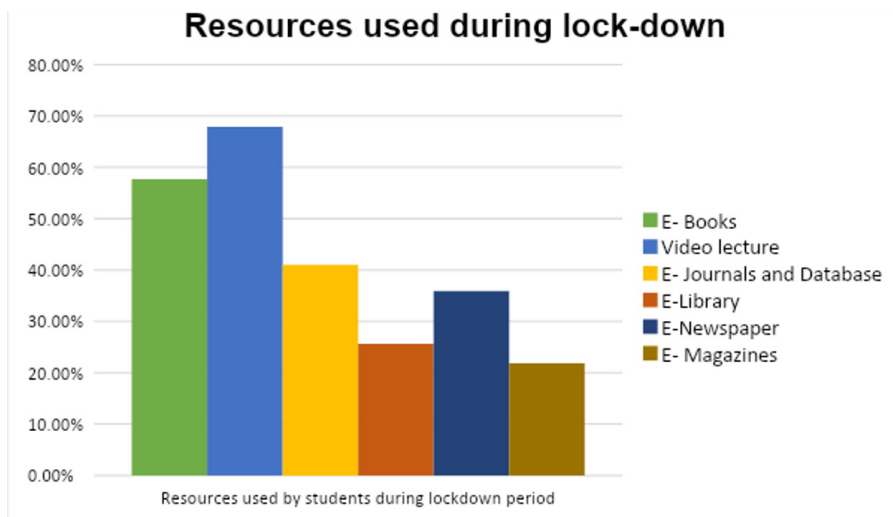
Figure-3: Resources used during lock-down

First, in order to maintain the effectiveness of education in governmental schools and universities, drastic steps are necessary. To encourage teachers to accomplish online teaching, open - source database user interfaces and training management software must be introduced ("E-learning: COVID-19 Pandemic: Impact and strategies for education sector in India"). The resources have been used during COVID-19 outbreak, presented in figure 3 which is helpful to learn something during the worst conditions. According to the results of the analysis video lecture, about 67.90 percent of the students have considered it effective preceded by e-books (57.70 percent), followed by e-journals and database (41 percent), and further followed by E-Newspaper (35.90 percent), followed by e-Library (25.60 percent) and the least used resources are e-Magazines (21.80 percent). This will assuredly change the academic system and improve teaching and learning quality, offering more choices to choose for students and teachers.

Table-3: Mode of study influences different conditions

S. No.	Items	Mode of Study		F value	P value
		Offline	Online		
		Mean ± S.D	Mean ± S.D		
1.	Focus	2.56 ± 1.438	2.38 ± 1.154	8.984	.003
2.	Concentration	2.74 ± 1.242	2.46 ± 1.203	1.107	.294
3.	Flexibility	2.36 ± 1.395	2.59 ± 1.400	.000	.985
4.	Self-discipline	2.59 ± 1.472	2.46 ± 1.203	5.957	.016
5.	Teacher's input	2.79 ± 1.783	2.38 ± 1.198	26.448	.000
6.	Workload	2.59 ± 1.454	2.67 ± 1.500	1.495	.223

7.	Resource Availability (Internet)	2.36 ± 1.503	2.33 ± 1.101	10.022	.002
8.	Resource Availability (Gadgets)	2.23 ± 1.432	2.31 ± 1.120	4.014	.047
9.	Time Management	2.46 ± 1.203	2.69 ± 1.565	3.435	.066
10.	Distraction level	2.49 ± 1.246	2.64 ± 1.520	2.137	.146
11.	Self-evaluation	2.59 ± 1.472	2.33 ± 1.255	4.336	.039

After the official announcement of lockdown in India we have to rely on the online education system and have only paved the way to pursue our education despite the ongoing crisis. The online mode of study, focus has been reduced (μ = 2.38) relative focus in offline classes (μ = 2.56), and according to current study results (Table 3). Focus seems to be very significant (p = 40.003) aligned with offline mode of study in the classroom. As accompanied by concentration, which is also observed to be decreased in online mode (μ = 2.46) rather than offline mode (μ = 2.74), but also if we think about the flexibility, we observed that relative to the classroom study (μ = 2.36), it was more in online mode (μ = 2.59) of study. This could be owing to the freedom to choose options or use multiple resources at a time. Whereas self-discipline was noted to still be strong in offline study mode instead of virtual classrooms, this could be due to respect regarding teacher and the classroom environment, but nobody can judge their personalities in virtual. It's just about the information being learned. It also can be concluded from the data that teachers receive high input in the academic setting (μ = 2.79), but it has been noticed to really be reduced in the online mode (μ = 2.38). A lot of effort has to be done by oneself in the virtual classes. The study materials or other resources that were easily accessible on college campuses, such as books, notes, etc., but things were to be managed all on their own with online classes. Thus, relative to the offline mode (μ = 2.59), the workload seems to be very high in the online mode of study (μ = 2.67). As we realize, we have to have a reliable internet connection for the online study mode, however this is the biggest virtual study concern. Time management was quite good in online mode (μ = 2.69) as compared to offline (μ = 2.46) because once the meeting is scheduled at a time, no excuses can be set for moving anywhere but in classroom study students and teacher both have flexibility with respect to time. It seems that managing online learning requires much more effort than regular classes. So the distraction level was found to be too high in online mode of study but the self -evaluation can be properly done in offline classes rather than online mode of study and these were highly significant.

Conclusions

The focus of this research was to identify the factors responsible for learning difficulties of university education using online and offline lecturer's responses. Even as the country is fighting against the pandemic, educators and students haven't yet betrayed their primary

responsibility for improving teaching and learning. Universities and higher education institutions have immediately turned to implementing virtual courses, online assignment submissions and teacher-student interactions with the lockdown of suspending courses at all schools, colleges and universities. Classes are also being taught online at schools, colleges and universities. In general, the present analysis suggests that there are several factors that are responsible for the difficulty in learning.

The findings from this study, therefore, the attributes of the participants resist their specific ability to learn due to their undesirable behaviours, family and socio-economic circumstances, psychological issues like less attention, low focus and concentration, technological problems like lack of gadgets, low internet connectivity and self-evaluation .

The study was designed to find out the problems online lecturers and students face in teaching and learning approximation in primary colleges of education.

After the analysis of the data collected, the following findings are summarized:

1. Students felt lack of focus, concentration, self-evaluation etc.

2. The Attitude of students' towards learning is very poor.

3. Time management is very poor

4. The online teaching and learning environment are not productive as compared to offline studies.

5. Lack of resources either technical or print media.

Limitations

Consequently, when evaluating the research outcomes, there are several other limitations to be mentioned. First, the specific structure of the analysis, such as the sampling method, is limited to only individuals with web access and English knowledge; the analysis may also restrict generalisation. Second, the research was carried over within a lockout time, which often has its own psychological effect.

Acknowledgement

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