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Online learning: A blessing during pandemic with special reference to students studying in private institutions at Dehradun (Uttarakhand)

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Abstract---Online teaching and learning during Covid 19 was initially tryout which later turned out to be a blessing so far as enabling students to continue their studies from the comforts of their homes is concerned. E- learning has raised the level of learning on digital platform. This paper attempts to throw light on all the aspects of online teaching and learning. Response of students of higher education was reported during second and third wave of COVID 19 respectively. 148 students participated in the survey that started in May 2021 and ended in February 2022. Data was analyzed using SPSS. Results showed that online learning was initially found to be challenging in the first wave of Covid-19 but later during second and third wave provided great support in strengthening education system all over the world. The study recommends the benefits of online learning by using technologies in classroom.

Keywords---online learning, COVID-19, pandemic, e-learning, performance, information technology.

Introduction

During Covid 19 pandemic, in the month of April 2020, government ordered to start education in online mode. All the Institutes authority float the message to all the students through WhatsApp, email, and messages. All the students were

informed about commencement of online classes along with new timetables keeping in mind reducing the number of classes from 9.30 am to 2.30 pm with lunch break in between. This was a great step in protecting teachers as well as students from the deadly spread of Corona Virus. It wouldn't have been possible to continue the education system worldwide through online mode without the extensive support of technology using Zoom, Webex, WhatsApp, MS Teams, Google Meet, etc.

Impact of online learning

At the beginning of Covid -19, the impact of online learning was challenging during the first wave of Covid 19 where most of the students and their families were getting familiarized with the technological know-how of acquiring online education. The second wave was more terrifying in terms of ill-health of family members across the world. Research reveal that at the beginning of online learning during the third wave, the online learning systems were quite established, and students were all adapted to the same. Hence the students were able to cope with the online mode of learning much better than the first and second phases.

There was also an academic year delay as the session started and ended up late than usual. The schools started functioning normally subsequently. It was the first time that Class 10th and Class 12th examinations got postponed, as they could not be conducted due to the lockdowns imposed during the first wave of Covid 19. Most of the students got promoted based on their online examination held by the schools, Institutes and Universities. D Shivangi (2020), defined online learning as learning experience in synchronous or asynchronous environment using different devices (e.g. mobile, phones, laptops etc.) with internet access. Ishu Chadda (2021) explained in this regard that the pandemic has brought transition from regular to virtual mode impacted education of students from diverse backgrounds.

Colleges faced a critical task in the era of technology; incorporating innovating e-learning environment tools to enhance teaching and learning. It was revealed in the research that students strongly agree that class lecture videos are supportive and highly appreciate online exam options as highlighted by Cabual M M A et al.(2022). Author also showed that students may free themselves from the noise / environmental distractions coming from their family members, neighborhood, and the community. Students may regularly be given free webinar lecture on troubleshooting to address the technical issues they experienced in online learning. Ishu Chadda (2021) surveyed that E-learning has increased the accessibility and availability of online resources among both educators and learners.

Digital India and skill India are among the several government initiatives launched to spread digital literacy in India. There are several other great initiatives taken by Indian Government such as BASTA (School's Book in digital form, E – Education (all schools connected with broadband and free wi-fi in all schools as highlighted by Palvia S. et al. (2018) Palvia S. et al. (2018) revealed that MOOCS (Massive Online Open Courses), NandGhars (Digital tools as

teaching aids), SWAYAM (Moocs based curriculum taught in the classrooms from 9th class onwards were fostered up. D Shivangi (2020), stated that deadly and infectious disease Corona Virus also known as Covid - 19 has deeply affected the global economy. Several highlights were made on international student mobility. Students during Lockdown missed international exposure and input into foreign jobs markets and networking (Scheleicher Andreas, 2020).

D Shivangi (2020) highlighted initial problems associated with technology failure such as downloading errors, log in problems, problems with audio & video and so on. Problem of balanced work and family life, facing poor competencies in academic type competencies were also found. Palvia S. et al. (2018) highlighted that quality of online education must be moved to the level as same as Face-to-Face (FTF) classrooms-based education to make the recognition of online education at par. D Shivangi (2020), revealed in her research that Covid19 tragedy has shaken up the education sector, and halted in-person teaching.

Literature review

Palvia S. et al. (2018) highlighted the challenges as well as trends of online education in their research. The research was conducted to throw light on Online Education specifically in United States of America, Asia, Middle East, Australia, New Zealand, Africa etc. The study concluded that online education in one form or other has been around since the days of telegraphy. It was revealed that e-education got traction prior to 2018 worldwide depending on technology.

Ishu Chadda (2021) stated that level of acceptance of online study among the students of higher education during pandemic revealed that both online and offline modes of learning process have their own pros and cons. The researcher highlighted that due to shutdown of academic institutions during Covid19, massive transformation took place in teaching-learning methods worldwide. This paper highlighted the start of various online learning platforms like NIOS (National Institute of Open Schooling), Free and Open-Source Software for education (FOSSEE), National Repository of Open Educational Resources (NROER), Study Webs of Active learning for young Aspiring Minds (SWAYAM) etc. The Government of India started various online learning platforms like National Institute of Open Schooling (NIOS), Free and Open-Source Software for Education (FOSSEE), National Repository of Open Educational Resources (NROER), Study Webs of Active Learning for Young Aspiring Minds (SWAYAM), E-pathshala, Diksha and other IT initiatives E-Yantra (Robotics Education).

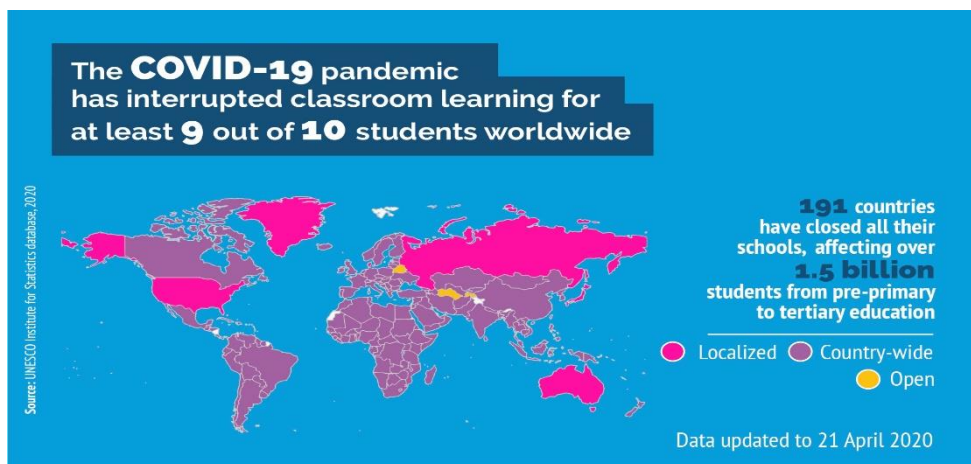
Cabual M M A et al. (2022) have revealed the several challenges in online learning during the Covid 19 pandemic in their research. The students at College at Sumacab at the threshold of Covid 19 were selected for the study. Nearly 299 students responded to the research questions that covered different parameters such as technology problems, financial issues, lack of in-person interactions, understanding course expectations etc.

Scheleicher Andreas (2020) has highlighted in his research on the impact of COVID-19 that due to lockdowns across the world, the whole conventional schooling was interrupted. He stated that throughout the crises, the education

systems are increasingly looking towards international policy experiences. Some countries were found to be extensively helping education system to continue during Covid 19 such as supply of digital learning devices, financial support to students and schools and funds for safety and cleaning equipments.

Zularya A et al., (2021), stated that education system has become prepared to the changes for future in terms of remote erudition patterns or online learning model. The researcher highlighted various outcomes of online learning and suggested the ways to protect the educational loss of youth in future. Extensive literature review was done on online education during Covid 19 worldwide as stated by esteemed The International Labour Organizations (2020-2021). The ILO in its global report has signified the youth and Covid -19 impacts on education. It highlights that urgent action must be taken to help youth facing long lasting severe impacts from the pandemic. The focus was also made on decent work. Over 12, 000 responses were received from 112 countries, Findings showed that young women, young youth in lower income countries faced a really tough time.

Several important aspects on online learning impact during covid 19 as stated by UNESCO were also studied. UNESCO has highlighted all the corners reflecting the impact of Covid 19 worldwide. The data as shown in the table 2.5.7 states the classroom learning response in different countries.



Source: <https://en.unesco.org/news/startling-digital-divides-distance-learning-emerge>

Jasmine Paul, Felica Jefferson (2019) conducted research on student's performance in an Online vs face to face environmental Science course. This study highlighted the teaching methods are more effective in long term learning. The study could reveal no significant difference between performance of students in online and face to face learning. The data was collected from 548 students who completed the environmental science class between 2009 and 2016.

T. Muthuprasad et al (2021) conducted research to study the perception of students regarding online learning platform. Their research reveals that most of the students feel more comfortable with smart phones for attending classes

online. The problems were faced by practical based courses like agriculture. No doubt online classes were found to be more challenging than face to face due to several technological problems.

Research Methodology

In this study, online survey has been conducted. : Primary and secondary source of data was collected to complete this study. E-Questionnaires were sent to students pursuing graduation during Covid-19 through whatsapp on their subject groups of the Institute. Karen J. Jansen et al. (2007) mentioned in his chapter that web surveys are similar to email based surveys in that they provide a short turn around time, and can reach a large number of potential respondents quickly. Web-based surveys are similar to e-mail based surveys in that they provide a short turnaround time, and can reach a large number of potential respondents quickly. Sample Size of the study was 148 and the sample Area was Dehradun (Uttarakhand).

Objective of the study

The objective of this research is:

- a. To study the impact of online learning on students of higher education.
- b. To find out the causes of stress during online learning
- c. To reveal suggestions for improving the online learning system.

Hypothesis

H₀: There is no significant difference between gender and the preference of online learning mode.

H₁: There is significant difference between gender and preference of online learning mode.

Studies reveal that students have realized that something is better than nothing and therefore many of them have specified in open ended questions about their difficulties during COVID-19. Several problems came out in the open ended columns like eye problems, internet connectivity issues, poor doubt clearance, inability to buy costly devices for students from poor families etc.

Validity and reliability

- ❖ Cronbach's Alpha test was conducted to find the validity and reliability of the questions. The reliability test for the number of items reflects that it is quite good with alpha value .91. Thus the questionnaire can be further filled by all the respondents to complete the study. The test will help to find subject error, subject biasness and observer error.

Data collection

Primary Data collection was made with total of 148 participants wherein there were 60 girls and 88 Boys responded the e questionnaire. A questionnaire

GENDER * 10. I prefer online class should go for long.	148	100.0%	0	0.0%	148	100.0%
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4.2. The analysis details with the finding of estimated hours of a student per week spent on computer with cross tabulation with the gender. The results shows that the significant difference between the number of hours spent by male in compare to female. The analysis is shown in table 4.2.1

Crosstab

Count

		Estimated number of hours I spend per week using a computer for educational purposes.				Total
		<1 hr	1-3 hr	3-5 hr	5-7 hr	
GENDER	FEMALE	9	18	10	7	44
	MALE	24	41	24	14	103
	Option 3	0	1	0	0	1
Total		33	60	34	21	148

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.719 ^a	9	.944
Likelihood Ratio	2.056	9	.914
N of Valid Cases	148		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .14.

Finding were also made to reveal the preference of online learning app. Preferred to be used by the students. The results of cross tabulation of gender and choosing difference online learning app shows that there is significant difference found. The result is as shown in the table

Gender plays a vital role i preference of attending online classes. It was observed that woen students were more dwelled with household responsibilities while attending classes of higher education from home than men. On the other hand men also have been found with other responsibilities while attending the classes from their homes. Thus the data reflecting the truth on this hypotheses is given in the table :

GENDER * Which app do you prefer for online classes

Table 4.3.1 Crosstab

Count

	Which app do you prefer for online classes				Total
	Google meet	Microsoft team	Other	Zoom	

GENDER	FEMALE	0	25	15	0	5	44
	MALE	1	79	15	1	7	104
Total		1	104	30	1	12	148

Table 4.3.2 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.876 ^a	8	.157
Likelihood Ratio	11.458	8	.177
N of Valid Cases	148		

a. 10 cells (66.7%) have expected count less than 5. The minimum expected count is .01.

The analysis show that maximum number of 39.6% of students agree that the classes provide right amount of theoretical and practical experience during online learning, whereas 33.3% student remain neutral to the answer and only 16.7 % of students disagree to it as shown in chart

Analysis was also done to find out whether education system is being degraded due to online education mode, Finding shows maximum of 37,8% of students agree to is whereas 28% of them remain neutral with their responses and very less 17.5% of them disagree to it.

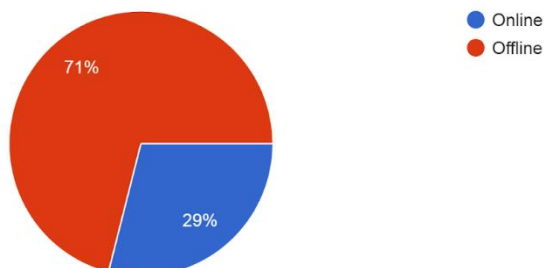
On an item students were asked to give their preference of continuation of Online classes for long. The result indicates that maximum of 24.8% students were neutral and 23.4% of them have totally disagreed and only 7.6 % were strongly agree and 21.4% were strongly disagreeing to it.

The analysis of preference of online or offline mode shows that 71% of students prefer offline mode and 29% of them prefer the online mode as shown in the table 4.6.

Table 4.6

which mode do you prefer most?

145 responses



Findings

The study reveals that there is a significant difference between online learning in the first wave of Covid-19 as compared to the second and third wave of Covid -19. After this pandemic, the world has brought a transformation in the education system. Emphasis were given more on online teaching aids in improving the quality of education. The paper highlighted all important issues that give great impact of online learning on students of higher education. As per the objective , there were several reasons that causes stress during online learning such as technological failure, communication barriers, no electricity, downloading errors, upset weather, problems in family etc. Several problems came out in the open ended columns like eye problem , network problems at large, poor doubt solving, resistance to buy costly devices for students from poor family etc.

Conclusion and Suggestions

The paper suggest the future research on after Covid need analysis of student online learning system in order to remain ready for any type of pandemics in future. The students have learnt to remain reliable on the online learning tools and have understood its importance in pandemics. Online education was found to be less effective then online classes. E – learning platform motivates students – centered learning easily adjustable during abrupt crises such as Covid -19. It is suggested that Universities and Educational Institutions must conduct compulsory trainings on online learning regularly.

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