PERCEPTION OF STUDENTS TOWARDS ONLINE TEACHING: A STUDY OF COLLEGE STUDENTS DURING LOCKDOWN PERIOD

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ABSTRACT

The Covid 19 pandemic is not only affecting the health of citizens but is also hampering the education of students due to the measures being taken for controlling its spread. The government has allowed higher education institutions to adopt Online Teaching methodology to prevent loss of academic outcomes. As there is an uncertainty about the span of this pandemic, social distancing measures are needed to get the desired results. Hence, online teaching requires intense and prompt attention from stakeholders. An effort has been made in this paper to analyse the perception of students towards Online Teaching during the lockdown period due to Covid 19. The findings suggest that students are not moderately satisfied with the online teaching methodology. Future research is encouraged to explore how online learning impacts psychological, social and physical well being of the students.

Introduction

The Covid 19 pandemic has caused an unexpected shift in pedagogy from physical class rooms to online teaching learning process. Despite the adoption of online teaching methodology during the Pre–Covid period, it was never considered as a core part of delivery of formal education in India, but now, present circumstances have forced educational institutions across the nation to adopt these as a central aspect of education delivery. A large number of faculty members in India are using Online Teaching methodology for the first time and students too are adapting themselves to receive online education. As a result, faculty and students are experiencing issues like lack of technological expertise, interactive teaching, short attention spans and technical issues.

At present, teachers as well as students are in the process of familiarizing with the new online educational system. The administration of educational institutions is also striving hard to devise concrete plans regarding provision of education facilities and other services such as tutoring, counselling, career guidance and mentoring the students. The challenging task in these circumstances is also to ensure that the internet is in reach of every student. It has been found that bandwidth is not adequate in both semi urban and rural areas.

Many studies have been already conducted during the Pre-Covid period to understand the perception and impact of online teaching on students. The students have positively perceived online education due to its flexibility and reasonable prices. The students too have negatively perceived it because of poor lecture content and student teacher interaction. Moreover, conducting less number of assessment tests also negatively impacts the students' perception (Gallup poll et.al, 2013). It is imperative to mention that the physical classes were dependent on time and place, while the online classes are dependent on the environment which includes factors like time, speed, place, and the interaction between instructors and pupils (Talebain et a., 2014). Many factors are responsible to determine the advantages of using online learning over traditional face-to-face lectures like content knowledge already acquired by students, their competency in technical knowhow, the level of difficulty of assignments given and time intensity (Porter et al, 2015). Since the methodology of teaching is considered as an important determinant affecting the performance of students (Henson, and LaRosa, 2013), it becomes necessary to study the students' perception and view-point about online teaching and learning process. Whether the students are attuned to the new

methodology or some modification is required, would be an important area of discussion.

Review of Literature

Ross and Schulz (1999) argued that the main drawback of e-learning is that the students are required to impose self-discipline. Sauers and Walker (2004) investigated the variation between the traditional mode of teaching and hybrid mode for business communication courses. They concluded that online courses can be effective for specific students in certain courses only. Kim, Liu, and Bonk (2005) studied the attitudes of MBA students' towards online learning. They indicated that main factor affecting the online education was the formation of virtual teams of students. Kartha (2006) made comparative analysis of effectiveness of teaching pedagogies for UG level business statistics course which was offered both in traditional mode as well as online. He analysed that students who opted for the online mode of teaching were less satisfied than the students enrolled in the traditional mode of teaching. Bennett and Maniar (2007) believed that the main disadvantage of e-learning was that there was no immediate feedback. Tseng and Chu (2010) investigated the association between means of learning and learning outcomes for economics courses. They witnessed that the online education was more effective as it was contributing more in achieving learning performance and proved better than the traditional form of education. Cao (2011) examined the satisfaction level of MBA students and witnessed that the students' satisfaction level was low for courses which were offered in online mode as compared to traditional face-to-face teaching. Even the determinants affecting the online and traditional methods of teaching are quite large and often difficult to predict.

Becker, Bruce, and Young (2012) probed the skill set acquired by students in the face-to-face and online course offered to counsel students. They found that online education was equally effective as traditional face to face teaching. Bhuasiri et al (2012) found that the main factors affecting the perception of students for online learning in developing countries include design of syllabus, infrastructure in terms of technology and quality of course. Chou (2012)

indicated that there exists a significant relationship between students' self-governing learning capability and the performance of online learning. Hatcher, Cowden and Sze (2012) indicated that innovative teachers have facilitated the design and development process of online courses to meet the projected learning outcomes by helping the students to learn more with less comprehensive assignments and course work. Farmakis and Kaulbach (2013) depicted that well structured and designed online courses produce same quality results as that of traditional courses. Murdock et al. (2013) described that learning outcomes were not significantly varied between traditional mode and online mode of learning by taking into account two variables namely gender differences and learning styles. The advantages and disadvantages of online learning versus traditional learning were found on the basis of various parameters. DiRienzo and Lilly (2014) analyzed the learning outcomes of UG students of business management course on the basis of traditional and online method of delivery. They found that there was no significant difference in the student learning outcomes in both the methods. Jaggars (2014) concluded that online courses were more demanded by students for their flexibility. By enrolling in online courses the students were able to strike a balance between their course work and family responsibilities, while some students were struggling in online courses because there were low chances of acquiring self-directed learning skills.

Carlsson et al. (2015) studied the impact of school closure on scores of students in tests. They also studied the cause and effect relationship between schooling and skills. They added that just ten days of extra schooling significantly increases the marks of tests. They measured that if schools were closed for twelve weeks it did not significantly reduce their scores. Brown et al. (2016) stated that the performance of students in the online mode and on-campus teaching was not significantly varied. Raymond Selorm (2016) disclosed in his research study that students were satisfied with e-learning in contrast to face to face learning. Singh A and Min AK (2017) conducted a study on students' acceptance for digital learning. They concluded that large

number of students had adapted themselves towards digital learning. Abbasi Sahar et al (2020) carried out a study to analyse the perception of medical and dental students towards e-learning and found that 76% of the students use mobile device for their e-learning. They further highlighted that students did not prefer e-teaching over face-to-face teaching during the lock down situation. The faculty is also experiencing some problems like not being technology friendly, lack of interactive teaching, easy distraction and technical issues (Verma Anjali et al, 2020).

Objectives and Research Methodology

The research study has been conducted keeping in view of the following objectives:

1. To ascertain the factors influencing satisfaction level of students' with Online Teaching during the lockdown period due to Covid 19.
2. To measure Perception of students' with Online Teaching during the lockdown period due to Covid 19.
3. To suggest measures to be adopted to improve the Online Teaching Learning Process.

The study was based on the empirical survey of respondents based at Punjab state. A total of 239 college students of both UG and PG programmes were surveyed for the purpose of research study. The stratified random sampling design has been chosen for the selection of the respondents. The gender wise and program wise strata's were classified. TOT Scale (Test of Online Teaching Scale) was developed for the purpose of collection of primary data. The scale was developed by going through the various stages. Stage one includes the items development by searching the relevant literature and building conceptual framework. Stage two involves reliability testing and the stage three involves the pilot study.

Stages of Developing TOT Scale (Test of Online Teaching Scale)

Stage 1: Items Development
TOT Scale was constructed on the basis of conceptual framework where the three relevant themes were constructed i.e. Teaching Learning Process, Online Learning Environment and De-motivating Factors. The goal was to ascertain the perception of students on different aspects. The theme of Teaching Learning Process was to determine the students' satisfaction and perception with online teaching. The purpose of second theme was to measure the students' satisfaction level with the online infrastructure and environment and the third theme intends to find out the extent to which online teaching gives harmful effects and de-motivate the students. The items were measured on the five point Likert scale with degrees of agreement ranging from 1-Strongly Disagree, 2- Disagree, 3– Neutral, 4-Agree to 5- Strongly Agree.

Stage 2: Reliability Testing
A scale comprising of 18 items was initially prepared and submitted for reliability test before adoption. The reliability was measured by computing Cronbach's alpha. The 7 items were found to have low item total correlation value which means they were not relevant with the scale, hence these items were deleted. After removal of 7 items, the Cronbach alpha score obtained was .792 which is quite good. Thus, the TOT scale with three relevant themes i.e. Teaching Learning Process (5 items), Online Learning Environment (4 items) and De-motivating Factors (2 items) was constructed, making a total of 11 items.

Stage 3: Pilot study
A pilot study was carried out to a small group of students and the satisfactory results were obtained. Therefore, 11 items were retained for the study.

The collected data was analysed using statistical tools for measuring the satisfaction level of students with respect to online method of teaching during lockdown period due to Covid 19. The secondary data was collected by reviewing the literature of the subject.

Results and Discussion

The objectives of the study were to ascertain the factors influencing satisfaction level of students' with online method of teaching and further to measure the perception of students during lockdown period due to Covid 19. In order to find out the same, the respondents were classified according to their gender and program of study. The Program wise and Gender wise classification of students is

presented in the table 1. It is evident from table that a total of 239 students participated in the study. The Program wise analysis presents that 157 (65.69%) respondents belongs to UG program and 82 (34.31%) were from PG programs. The Gender wise analysis indicates that 77 (32.22%) respondents were male and 162 (67.78) were female.

Table1: Demographic Analysis of Students

S. No.	Group		Number (N)	Frequency (%)
1.	Program Wise	UG	157	65.69
		PG	82	34.31
		Total	239	100.00
2.	Gender Wise	Male	77	32.22
		Female	162	67.78
		Total	239	100.00

The analysis of perception of students with the various themes (factors) of Online Teaching presented in the table 2. The responses for three themes i.e. teaching Learning Process, Online Learning environment and Demotivating factors were obtained. The analysis of Teaching Learning Process theme presents the decreasing order of satisfaction level of students starting from Study material (3.88) followed by Doubt clearance (3.58), Enhancement of learning (3.51), Communication with the teacher (3.48), Facilitating better understanding of concepts (3.27). The analysis further indicates the satisfaction level of students (in decreasing order) with the sub-factors of theme Online Learning Environment i.e. Gaining access to new technology (3.86), easyness of process (3.60), Schedule planning (3.58) and Internet connection (2.99). Similarly, the analysis of sub-factors of theme De-motivating factors includes increased strain on eyes (3.78) and increased stress level (3.30).

Table 2 : Item-Wise Analysis

S. N o	Statistics	Mean	Std. Deviation	N
1.	**Teaching Learning Process**			
	Communication with your teachers is satisfactory during online teaching	3.48	1.003	239
	Study material provided by the faculty was adequate and relevant	3.88	.972	239
	Students were able to clear doubt during online teaching	3.58	.979	239
	Online classes have helped in enhancing your learning	3.51	1.012	239
	Online lectures facilitate better understanding of concepts	3.27	1.055	239
2.	**Online Learning Environment**			
ii	The schedule of online classes is well planned and structured	3.58	1.077	239
	Internet connection was working well during online classes	2.99	1.163	239
	Attending online classes is an easy process	3.60	1.122	239
	Online classes have helped to gain access to new technology	3.86	1.015	239
3.	**Demotivating Factors**			
	Online classes have increased your stress level	3.30	1.119	239
	Online classes have increased strain on your eyes	3.78	1.094	239

The descriptive analysis for both the stratas is presented in table 3. The analysis of Teaching Learning Process presents that mean score for UG students is 3.451whereas PG students is 3.7220, indicating that PG students were slightly more satisfied with Teaching Learning Process as compared to UG students. The gender wise analysis indicates that the mean score of Male students (3.63) was little higher than female students (3.500) indicating their higher satisfaction level as compared to female students.

Similarly the programme wise and gender wise analysis with the theme Online Learning Environment indicates that PG students (3.676) and Male students (3.577) were more satisfied than the UG students (3.418) and female students (3.473) respectively.

Further the program wise analysis of theme De-motivating factors was carried out which indicates that the total mean score is 3.5397 and the mean score of UG students and PG Students is 3.681 and 3.268 respectively. It indicates that the students experience stress and strain while attending online classes. Gender wise analysis presents the mean score for male (3.545) and female (3.537), which means that the impact of demotivating factors is almost same for both males and females.

Table 3: Program Wise/ Gender Wise Descriptive Analysis

S. No	Variables	Group	N	Mean	Std. Deviation	Std. Error
1.	Teaching Learning Process	UG	157	3.4510	.80731	.06443
		PG	82	3.7220	.73753	.08145
		Male	77	3.6364	.77305	.08810
		Female	162	3.5000	.80101	.06293
		Total	**239**	**3.5439**	**.79306**	**.05130**
2.	Online Learning Environment	UG	157	3.4188	.83167	.06637
		PG	82	3.6768	.76324	.08429
		Male	77	3.5779	.75466	.08600
		Female	162	3.4738	.84451	.06635
		Total	**239**	**3.5073**	**.81652**	**.05282**
3.	Demotivating Factors	UG	157	3.6815	.98409	.07854
		PG	82	3.2683	.92361	.10200
		Male	77	3.5455	1.00715	.11478
		Female	162	3.5370	.97254	.07641
		Total	**239**	**3.5397**	**.98171**	**.06350**

The program wise and gender wise one way ANOVA analysis of students is presented in table 4. The program wise analysis indicates the statistics $p(<.05)$ for Teaching Learning Process (6.433), Online Learning Environment (5.481) and Demotivating Factors (9.901) implying that groups are significantly different from one another. This means that responses of both UG and PG students are different from each other. The gender wise one way ANOVA analysis indicates that there does not exist any differentiation among responses of students for theme Teaching Learning Process (1.547), online learning environment (0.849) and de-motivating factors (0.004).

Table 4: Program Wise / Gender Wise Analysis of Variance

S. No	Variable	Strata	Groups	Sum of Squares	DF	Mean Square	F	Sig.
1	Teaching Learning Process	Programme	Between Groups	3.956	1	3.956	6.433	.012
			Within Groups	145.733	237	.615		
			Total	149.689	238			
		Gender	Between Groups	.971	1	.971	1.547	.215
			Within Groups	148.718	237	.628		
			Total	149.689	238			
2	Online Learning Environment	Programme	Between Groups	3.587	1	3.587	5.481	.020
			Within Groups	155.088	237	.654		
			Total	158.675	238			
		Gender	Between Groups	.566	1	.566	.849	.358
			Within Groups	158.108	237	.667		
			Total	158.675	238			
3	Demotivating Factors	Programme	Between Groups	9.198	1	9.198	9.901	.002
			Within Groups	220.174	237	.929		
			Total	229.372	238			
		Gender	Between Groups	.004	1	.004	.004	.951
			Within Groups	229.369	237	.968		
			Total	229.372	238			

Conclusion and Suggestions

The teaching methodology has undergone a huge shift worldwide due to the spread of Covid- 19. The colleges find no other viable alternative than to adopt the online teaching mode as a substitute to the class room teaching. In the present study we have developed TOT scale in order to measure the satisfaction level of students with Online Teaching. The TOT Scale was constructed on the basis of

conceptual framework where the three relevant themes were constructed i.e. Teaching Learning Process, Online Learning Environment and De-motivating Factors. The results proposed that the satisfaction level of students with teaching learning process and online learning environment was moderate, which is really a matter of discussion for teaching fraternity. The teachers should be more cautious and supportive to students during online teaching. Furthermore, the results obtained in the study regarding de-motivating factors are also alarming and needs to be taken very seriously.

One another major finding of the study suggests that the UG students need to be given more attention as compared to the PG students. This is because the online teaching demands prior self study and students need to be more attentive and responsible while attending online classes. There is no doubt that online teaching mode has proved very useful in a period of crisis where there was no other route available to educate the students. But the administration and faculty should continuously strive for bringing more innovative alternatives and plug the gaps. It is to further mention that many students lack gadgets like laptops and smart-phones alongwith an access to internet connection which is really disappointing.

This study recommends that all the parties i.e. students, teachers, parents and institutions administration should be fully involved to get the positive outcome out of online teaching. We don't recommend online education as the substitute for traditional teaching methodology but it can be helpful if used wisely. There is no doubt to say that online teaching does not provide the benefits of traditional method of delivery like developing interpersonal skills and group learning through face-to-face interaction. But, it can't be denied that addition of technology can play a powerful role in teaching.

However, in the present circumstances where online teaching is the only alternative, we suggest that students are required to impose self-discipline. Moreover, students also need to acquire self-directed learning skills. Online learning through digital methods necessitates more concentration by the students. Teachers should guide them about the usage of appropriate resources, modification of lecture content and approaches based on online teaching. The role of teachers and parents is to continuously keep the students motivated. The administration must also obtain regular feedback from students, faculty and parents regarding the online classes.

The current study was limited in time, geographical and physical environment, therefore it could not evaluate many other important variables like impact of online teaching on bright, average and weak students, stream wise analysis of students perception etc. Future research is also encouraged to explore how online learning impacts psychological, social and physical well being of students.

The findings of the study shall be useful for the faculty and administration involved in developing policies for improving students-teacher interaction while conducting classes through online mode. Institutions therefore, should carefully choose their online teaching strategies which lead to improvement on the best usage of technology so that it could positively impact student learning during Covid-19 pandemic.

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