

A Study on Students Attitude towards Online Learning and its impact on Satisfaction during the COVID-19 Pandemic

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ABSTRACT - Coronavirus (COVID-19) Pandemic has alter the living style of people all over the world. The effect of COVID-19 is everywhere which resulted in the closure of schools and other educational institute, because of this traditional learning has being replaced by online learning mode. This study aim to examine students attitude towards Online learning and its impact on Satisfaction during COVID-19 Pandemic. The data were collected from students of age group 15 to 25. Linear Regression Analysis was used to find out the impact of student's attitude on satisfaction. The result shows that satisfaction variable is dependent on attitude of students.

Keywords: COVID-19, E-Learning, Student, Attitude, Satisfaction, Online Learning

I. INTRODUCTION

COVID-19 is a deadly virus which has captured our life and restricted our living style, daily routine and many more. Everyone all over the globe is being affected by this deadly virus. From the month of February 2020, the virus has started spreading all over the world and different countries have started using different precautionary measures to tackle this disease. Countries started putting lockdown and have restricted people on going out from their homes. So, during this time one of the major concerns for government is that how schools are going to function. The solution is virtual learning or you can say online learning. Government has given clear instruction to school to go for online learning or online teaching mode to keep students and teachers safe. Online learning has provided a safe platform for the students and teachers. During this pandemic online learning is the best way for teachers to connect with students and teach them. Every school has modified its curriculum and buildup a new schedule to teach their students. A lot of debate is going on about the quality and success of online learning for students during COVID-19. Research should be done to know the satisfaction of the students with online learning which has replaced the traditional mode of education.

The students living in rural areas are facing issues with the internet connection which is causing hindrance in their online studies. Facilities in School and colleges are not upto the mark or not with the latest technology and it affect organizational response towards the students digital learning. Students could not interact with their teachers because of poor network connection their voice is not audible to them. Virtual classes are not that much interesting and interactive to students because they cannot

interact with their fellow people one to one, because of this real time experience and knowledge are missing in digital world. Students interest in online learning is very less and that the reason hardly some students attend the online classes.

II. LITERATURE REVIEW

Student satisfaction is more precisely conceptualized as students' perception developed from the perceived value of education and experience gained at an educational institute (Astin, 1993)

Edeh Michael Onyema, Dr. Nwafor Chika Eucheria, Dr. Faith Ayobamidele Obafemi, Shuvro Sen, Fyeface Grace Atonye, Dr. Aabha: their lack of motivation and understanding of the material, the decrease in communication levels between the students and their instructors, and their increased feeling of isolation caused by online classes.

Blasco-Arcas et al. (2013) stated that there are two factors that are directly associated to active learning, those are interactions and engagement. Muhammad Adnan and Kainat Anwar (2020), has said that online learning cannot produce desired results in underdeveloped countries, where a vast majority of students are unable to access the internet due to technical as well as monetary issues. few other difficulties are Sharma, Alhuseen Omar Alsayed(2020), according to them COVID-19 has major effects on school characteristics, including research, academic programmes, Staff professional development and jobs in the academic sector etc. These effects were felt by both educational institutions, educators, students and parents and other stakeholders in education. The decision to shutdown schools for Coronavirus across the world may be hurtful,

but it is sensible considering the rate of spread, and the dangers imposed by COVID-19 pandemic.

Mohammad Alawamleh, Lana Mohannad Al-Twait and Gharam Raafat Al-Saht (2020), according to them majority still prefer classroom classes over online classes due to many problems they face when taking online classes, some of which include Hasnan Baber (2020), he said that variables such as interact in the online class, student motivation to participate in the online class, course structure, and instructor facilitation and knowledge are important determinants of perceived student learning and student satisfaction. Online student engagement is a stronger determinant of the perceived student learning outcome as online classes lack physical socialization. Lack of interaction with the instructor, response time and absence of traditional classroom socialization.

Rome B. Moralista¹, Ryan Michael F. Oducado (2020), they founded that compared to younger faculty, older faculty favor online education in the midst of COVID-19 pandemic as they may be aware that risk for severe COVID-19 illness increases with age. As faculty transit and adapt to the new normal in the higher education landscape, they must be afforded with continued support, training, and development and be provided with ways to more fully understand and expand the opportunities that online education presents.

H01: There is no cause and effect relationship between Student's Satisfaction and Student's Attitude

1. OBJECTIVE OF THE STUDY

- To design, develop and standardize measures for evaluating attitude of student towards online learning and its impact on satisfaction during COVID 19
- To identify the underlying factors of online learning on attitude and satisfaction of students
- To establish the cause and effect relationship between independent variable and dependent variable.
- To open new areas for further research.

III. RESEARCH METHEDODOLOGY

The study was casual in nature with survey method used for data collection. Population of the study was students of age group from 15 to 25 in Uttar Pradesh. An individual Student was treated as the element of the study. The sample size of study was 123 respondents and non-probability convenience sampling was used for the study. The responses were collected on a likert scale of 1 to 5 for all the variables. Reliability test was applied to evaluate reliability of measures used for evaluating satisfaction and attitude of students. Factor analysis was used to identify the underlying factors of satisfaction and attitude of students.

Regression was applied to evaluate the cause-and-effect relationship between independent variables and dependent variables.

IV. RESULTS AND DISCUSSIONS

7.1 Reliability Measure: The Cronbach's Alpha method was applied to calculate the reliability coefficients of all items in the questionnaire. The reliability of all the variables is given below.

Table 1: Reliability Statistics of Attitude of Students

Cronbach's Alpha	N of Items
.893	20

The reliability value of .7 or more is considered good enough. The Cronbach's Alpha value of Attitude of Students is .893 which is higher than the standard value; therefore the questionnaire can be treated as reliable for the study.

Table 2: Reliability Statistics of Satisfaction of Students

Cronbach's Alpha	N of Items
.839	20

The reliability value of .7 or more is considered good enough. The Cronbach's Alpha value of satisfaction is .839 which is higher than the standard value, therefore the questionnaire can be treated as reliable for the study.

KMO and Bartlett's Test Result

Kaiser-Meyer-Olkin measure of sampling adequacy indicated KMO value of .804 which indicate that the sample size was good enough for the study. KMO values above .5 are considered to be good enough to consider the data as normally distributed and therefore suitable for exploratory factor analysis.

Table 3: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.804
Bartlett's Test of Sphericity	Approx. Chi-Square	876.250
	Df	190
	Sig.	.000

7.2 PRINCIPAL COMPONENT ANALYSIS OF STUDENTS SATISFACTION

Table 4: Factor Analysis Table for Students Satisfaction

S.No	Factor Name	Total	Variance	Item Converged	Loading Value
1	Personal Factor	7.132	35.662	Sense of Belongings Cancelled Classes Bridging Gap Teaching Ability Internet Advantage Contact Department Topic Covered Self Study	.716 .672 .657 .630 .619 .606 .575 .529

2	Attainable	1.747	8.737	Accessibility of Material Connection Strength Student Participation Interaction	.751 .559 .541 .504
3	Easy Control	1.407	7.037	Satisfaction Comfort Easy to Use Application Quality	.837 .668 .548 .438
4	Expensive	1.086	5.429	Technological Error Internet Charges	.808 .747
5	Technician	1.034	5.168	Knowledge of Technology Training	.816 .647

				Expensive Difficulty in Technology Mental Effort	.549 .435
2	Improvisation	3.118	15.588	Making Notes More Work Improve Quality Revise Better Opportunity	.803 .759 .750 .721 .497
3	Uninteresting	1.356	6.779	Annoying Unexciting Difficult	.732 .672 .661
4	Degrade	1.327	6.636	Learner Centred Reduce Quality	.722 .482
5	Idea Generation	1.183	5.916	Social Isolation Discussing Innovations	.777 .624
6	E-Book	1.025	5.126	Reading E-Book	.768

Discussion of Emerged Factors

- Personal Factor (7.132): This factor emerged as the most important determinant of student satisfaction during COVID-19 Pandemic with a total variance of 35.662. Eight measures (Sense of Belongings, Cancelled Classes, Bridging Gap, Teaching Ability, Internet advantage, contact department, Topic Covered, Self-Study) converged into one factor.
- Attainable (1.747): this factor emerged as the second most important determinant of student satisfaction with a total variance of 8.737. Four measures (Accessibility of Material, connection Strength, Student participation, Interaction) converged into one factor.
- Easy Control (1.407): This factor emerged as the third most important determinant of students' satisfaction with a total variance of 7.037. Four measures (Satisfaction, Comfort, Easy to Use, Application Quality) converged into one factor.
- Expensive (1.086): This factor emerged as the fourth most important determinant of students Satisfaction with a total variance of 5.429. two measures (Technological Error, Interent Charges) converged into one factor.
- Technician (1.034): This factor emerged as the fifth most important determinant of student's satisfaction with a total variance of 5.168. Two measures (Knowledge of Technology, Training) converged into one factor.

PRINCIPAL COMPONENT ANALYSIS OF STUDENTS ATTITUDE

Table 5: Factor Analysis for Students Attitude

S.No	Factor Name	Total	Variance	Item Converged	Loading Value
1	Struggling	5.245	26.226	Training Difficulty in E-Learning Error Frustrating	.797 .793 .734 .674 .663

Discussion of Emerged Factors

- Struggling (5.245): This factor emerged as the most important determinant of student's attitude with a total variance of 26.226. Seven measures (Training, Difficulty in E-Learning, Error, frustrating, Expensive, Difficulty in Technology, Mental Effort) converged into one factor.
- Improvisation (3.118): This factor emerged as the second most important determinant of student's attitude with a total variance of 15.588. Five measures (Making Notes, More Work, Improve Quality, Revise, Better opportunity) converged into one factor.
- Uninteresting (1.356): This factor emerged as the third most important determinant of student's attitude with a total variance of 6.779. Three measures (annoying, unexciting, Difficult) converged into one factor.
- Degrade (1.327): This factor emerged as the fourth most important determinant of student's attitude with a total variance of 6.636. Two measures (learner centered, reduce quality) converged into one factor.
- Idea Generation (1.183): This factor emerged as the fifth most important determinant of student's attitude with a total variance of 5.916. Two measures (social Isolation, Discussing Innovation) converged into one factor.
- E-Book (1.025): This factor emerged as the sixth most important determinant of student's attitude with a total variance of 5.126. Only One measure emerged in E-Book that is Reading E-Book.

V. 7.3 REGRESSION ANALYSIS

H01: There is no cause and effect relationship between Students Satisfaction and Student's Attitude

Table 6: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.450 ^a	.202	.195	9.29779
a. Predictors: (Constant), Attitude				
b. Dependent Variable: Satisfaction				

Linear Regression was applied between Students Satisfaction as the dependent variable and Students Attitude as independent variable. The model summary table indicate that the value of R² is .202 which shows that Students Satisfaction as a dependent variable it is dependent on Students Attitude by 20.2%

Table 7: ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2607.381	1	2607.381	30.161	.000 ^a
	Residual	10287.429	11	86.449		
	Total	12894.810	12			
a. Predictors: (Constant), attitude						
b. Dependent Variable: Satisfaction						

The goodness fit for the model was tested using ANOVA Table, and the F value was found to be 30.161 which was significant at .000 level of significance, indicating that the model is showing good fit.

Table 8: Coefficients

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error				Beta	Lower Bound
1	(Constant)	270.733	43.700	.450	4.778	.000	121.40	293.20
	Attitude	.452	.082		5.492	.000	.289	.615
a. Dependent Variable: Satisfaction								

$$Y = a + b_1x_1 + b_2x_2 + \text{error}$$

$$Y = 20.73 + 0.452x_1 + 0.082$$

Where, Y= Satisfaction (Dependent Variable)

X₁ = Attitude (Independent Variable).

VI. DISCUSSION

The result of this study support the previous studies that is interaction and engagement among student is very important in Online Learning for satisfaction of students. Few important contribution of online learning are: The aim of engagement among student is to provide them practical experience such as working in a group, giving presentation, discussing with the instructor and peers, doing project work and assignments.

VII. LIMITATIONS

The study was conducted in Uttar Pradesh region only which makes the sample size narrow with 123 respondents only. The study could be conducted taking demographic variables into consideration like age, gender, different cities of the country and even class. The study can further be conducted by increasing the sample size and including a greater number of cities.

VIII. CONCLUSION

The study examined students' attitude towards online learning and its impact on satisfaction during COVID-19 Pandemic. By applying Regression Test is it concluded that satisfaction variable are dependent on attitude variable by 20.2%. Some other findings based on questionnaire are 39.8% students think online learning reduce the quality of knowledge attained, It also increases learner's social isolation whereas 50.4% think online classes are effective in bringing the gap of missed academic period and students like to attend online classes and think it is easy to use online platform.

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