



A STUDY ON EFFECTIVENESS OF ONLINE CLASSES IN THE PANDEMIC SITUATION WITH SPECIAL REFERENCE TO COLLEGE STUDENTS AT TRICHY

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Abstract:

The covid-19 pandemic situation educational institution to conduct the classes through online mode. This made the college students to attend the classes from the home itself. There are several factors which are difficult to adopt by the students like internet connectivity, time management and also affect the daily life of the college students. This research focus on effectiveness of online classes in the pandemic situation with special refence to college students at the Trichy region. In this study we consider certain factors that influence the effectiveness of online classes in the pandemic situation. The student's responses are collected through a well-structured questionnaire.

Keywords: Online class, Internet, Stress, Learning, Pandemic situation.

1.Introduction:

The world we know has changed in a short time, with the rise and spread of the deadly novel Corona virus known as COVID-19, the world will never change again. This study explores the unfortunate consequences of the novel virus infection, the resulting lockdown, and thus the need to turn an offline classroom into an online classroom.

An online class is a class conducted on the Internet. They are usually guided through a learning management system in which students can learn their curriculum and academic progress and interact with their fellow students and professors.

It explores and describes research materials, techniques, and technologies in many online teaching sites. It also identifies the platforms and technologies used to conduct online examinations in a secure environment devoid free of fraud. In addition, it explores the challenges faced in using online teaching methods.

2.Review of literature:

Muhammad Adnan and Kainat Anwar (2020). This research study examines the attitudes of Pakistani higher education students towards compulsory digital and distance learning university courses amid Coronavirus (COVID-19). Undergraduate and postgraduate were surveyed to find their perspectives about online education in Pakistan. The findings of the study highlighted that online learning cannot produce desired results in underdeveloped countries like Pakistan, where a vast majority of students are unable to access the internet due to technical as well as monetary issues. The lack of face-to-face interaction with the instructor, response time and absence of traditional classroom socialization were among some other issues highlighted by higher education students.

Dr. Pravat Kumar Jena (2020). Covid-19, as a global pandemic, has called for social distancing. It has made people mandatory to sit indoor and sitting idle indoor may lead to mental stress. Hence to keep people engaged and free from mental stress, online learning can play important role. Online learning is the best solution during this pandemic situation. Teachers can use virtual classrooms to teach from home with all necessary tools which makes the online sessions as effective as traditional ones. Pandemics often compel the learners to stay at home for long period of time and obstruct teaching-learning process. This article emphasizes on how online learning is beneficial during times of crises like work absences or pandemics.

Zhu & Liu, (2020). There existed substantial infrastructure for online education in many countries before the pandemic. However, no university was ready for a complete shift to online education. Empirical studies have found that students feel that they learn better in physical classrooms than through online education. Students miss the help they receive from their peers in classrooms and laboratories and access to the library. Nevertheless, students feel that online education helped them to continue their study during the pandemic. Universities are now using innovative strategies to ensure the continuity of education for their students.

Pinaki Chakraborty, Prabhat Mittal, Manu Sheel Gupta, Savita Yadav and Anshika Arora (2020). The COVID-19 pandemic forced universities around the world to shut down their campuses indefinitely and move their educational activities onto online platforms. The universities were not prepared for such a transition and their online teaching and learning process evolved gradually. We conducted a survey in which we asked undergraduate students in an Indian university about their opinion on different aspects of online education during the ongoing pandemic. We received responses from 358 students. The students felt that online education is stressful and affecting their health and social life. This pandemic has led to a widespread adoption of online education and the lessons we learn now will be helpful in the future.

Wildana Wargadinata, Iffat Maimunah, Eva Dewi and Zainur Rofiq (2020). The coronavirus disease (COVID-19) pandemic forced many universities to apply online learning. The purpose of this study was to break down the online learning process in the early pandemic as well as effective and optimal online learning. The study recommends that other researchers uncover the solution to obstacles experienced by students in online learning and the development of other media to implement effective online lectures.

Dr.P. Balasubramanian Subramanian and A.P. Shanmugam (2021). “Purpose of education is to moralise and socialise the people,” said Dr B. R. Ambedkar. The role of education in the holistic development of a society is immeasurable because good education shapes people right from their childhood and thus the entire society. That’s why every developed civilisation had given keen importance to education in any form. The way people get educated is a reflection of the culture of that period. It has travelled through rock carvings, manuscripts, papers and today it has reached our smartphones due to the Covid’ 19 Pandemic situation. So, the researcher attempted to study the College Students Awareness about Online classes during the Covid’ 19 Pandemic situation.

Preethi Sheba Hepsiba Darius, Edison Gundabattini and Darius Gnanaraj Solomon (2021). Online teaching–learning methods have been followed by world-class universities for more than a decade to cater to the needs of students who stay far away from universities/colleges. But during the COVID-19 pandemic period, online teaching–learning helped almost all universities, colleges, and affiliated students. An attempt is made to find the effectiveness of online teaching–learning methods for university and college students by conducting an online survey.

3.Objectives of the study:

- To study the student’s perception about the online classes.
- To study the problems facing by students concerning in the online classes.
- To study the understanding level of the student in the online classes.
- To study the stress level of students in the online class.

4.Scope of the study:

Identifying the barriers in adoption of the online classes and the level of influence of the factors. This research studies the effectiveness of online classes in the pandemic situation. This research also recognizes the problem faced by the students during the online classes.

5.Research Methodology:

A research design is one that minimise bias and maximize the reliability of the data. It also yields maximum information, gives minimum experimental error, and provides different aspects of a single problem. A research design depends on the purpose and nature of the research problem. Thus, one single design cannot be used to solve all types of research problem, i.e., a particular design is suitable for a particular problem.

5.1 Descriptive study:

The descriptive analysis is used for this research design. The descriptive study is one in which information is collected without changing the environment i.e., nothing is manipulated.

5.2 Sample Design:

The sample for the study was collected only in the Trichy region. The sample design is convenience sampling. The place chosen for this study is college. The sample is collected from all types of students unbiased from age, gender, educational qualification, occupation.

5.3 Area of the study:

Tiruchirappalli, also known as Trichy, is a second largest city in the Indian state of Tamil Nadu and the administrative headquarters of Tiruchirappalli District. Trichy is the fourth largest city and the fourth largest urban integration in the state.

5.4 Method of Data collection:

The data is collected from Primary data. Primary data are collected from students through personal interview.

5.5 Statistical tools used:

The statistical tool was applied upon the data collected. Appropriate tools were used to analyse and make meaningful decisions. The hypothesis is framed and tested with the help of the suitable tool such as simple percentage, chi-square analysis.

5.6 Limitation of the study:

A few students of the study were not willing to give genuine answers to some of the questions in the questionnaire.

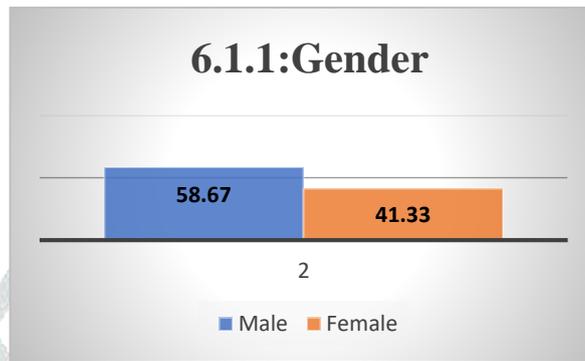
The changing student behaviour and their perception about online classes, many new and better things may emerge in the near future, which cannot be safeguarded in the reports.

6.Data Analysis

6.1. Percentage analysis

Table no 6.1.1: Frequency distribution of Gender of the students

S. No	Gender	Frequency	Percentage
1	Male	44	58.67
2	Female	31	41.33
	Total	75	100

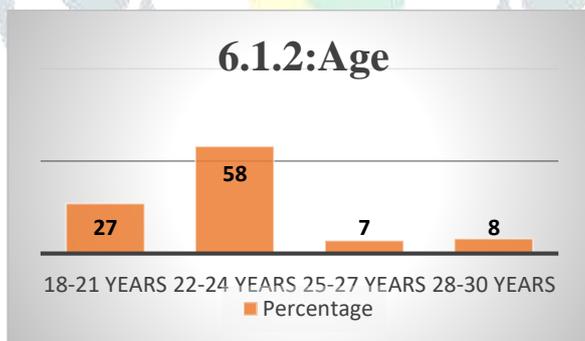


Interpretation:

The above table shows that 59% of the students are male and 41% of the students are Female.

Table no:6.1.2: Frequency distribution age of the student

S. No	Age	Frequency	Percentage
1	18-21 years	20	27
2	22-24 years	44	58
3	25-27 years	5	7
4	28-30 years	6	8
	Total	75	100

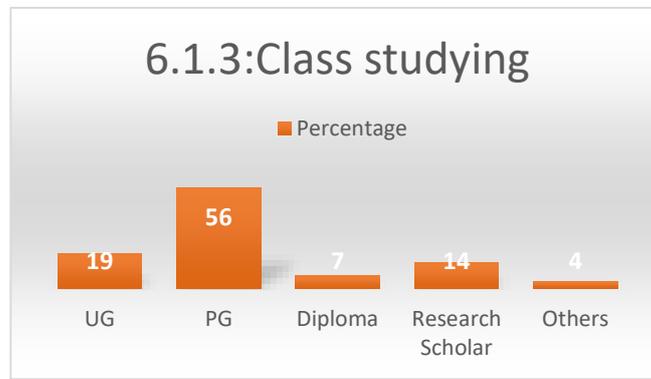


Interpretation:

The above table shows that 58% of the students are in the age of 22-24 years and 27% of the students are in the age of 18-21 years and 8% of the students are in the age of 28-30 years and 7% of the students are in the age of 25-27 years.

Table no:6.1.3: Frequency distribution of Status of the students

S. No	Class studying	Frequency	Percentage
1	UG	14	19
2	PG	42	56
3	Diploma	5	7
4	Research Scholar	11	14
5	Others	3	4
	Total	75	100

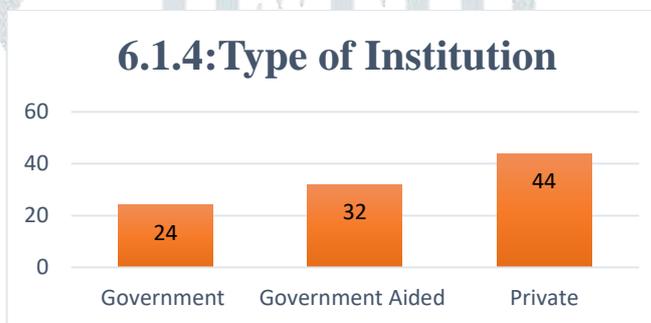


Interpretation:

The above table shows that 56% of the student are Post graduate,19% of the students are under graduate,14% of the students are Research scholar,7% of the students are diploma and 4% of the students are others.

6.1.4: Frequency distribution of Type of Institution

S. No	Type of Institution	Frequency	Percentage
1	Government	18	24
2	Government Aided	24	32
3	Private	33	44
	Total	75	100

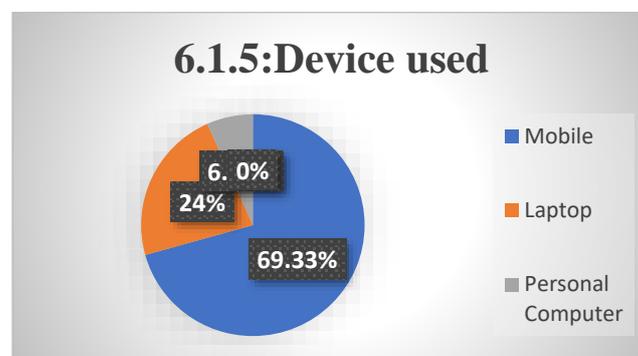


Interpretation:

The above table shows that 44% of the students are Private college and 32% of the students are Government aided college and 24% of the students are Government college.

Table no:6.1.5: Frequency distribution of Device used by the students

S. No	Device used	Frequency	Percentage
1	Mobile	52	69.33
2	Laptop	18	24
3	Personal Computer	5	6.67
4	Tablet	0	0
	Total	75	100

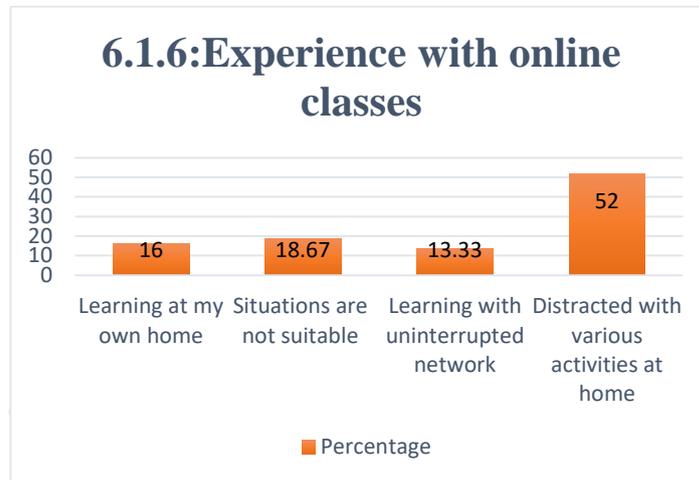


Interpretation:

The above table shows that 69% of the students used mobile phones,24% of the students used Laptop,7% of the students used Personal computers and 0% of the students used Tablets.

Table no:6.1.6: Frequency distribution of Experience with online classes

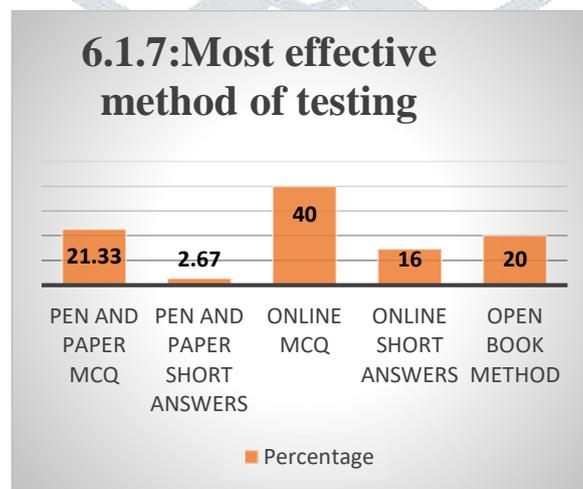
S. No	Experience with online classes	Frequency	Percentage
1	Learning at my own home	12	16
2	Situations are not suitable	14	18.67
3	Learning with uninterrupted network	10	13.33
4	Distracted with various activities at home	39	52
	Total	75	100

**Interpretation:**

The above table shows that 52% of the students distracted with various activities at home, 19% of the students are not suitable with their situational challenges, 16% of the students are learning at their own home and 13% of the students are learning better with uninterrupted network connectivity.

Table no:6.1.7: Frequency distribution of Most effective method of testing

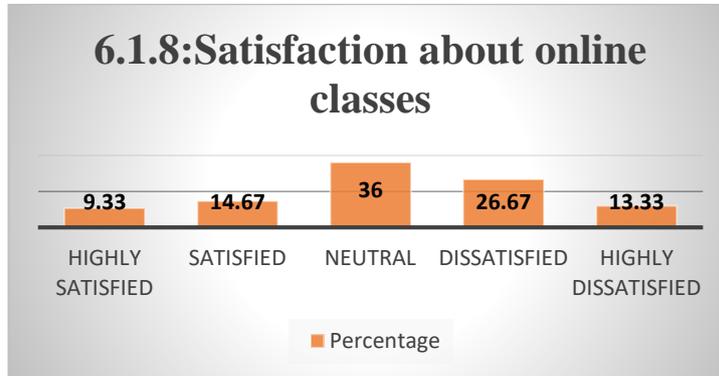
S. No	Most effective method of testing	Frequency	Percentage
1	Pen and Paper MCQ	16	21.33
2	Pen and Paper short answers	2	2.67
3	Online MCQ	30	40
4	Online short answers	12	16
5	Open book method	15	20
	Total	75	100

**Interpretation:**

The above table shows that 40% of the students prefer online MCQ, 21% of the students prefer Pen & Paper MCQ, 20% of the students prefer Open book method, 16% of the students prefer Online short answers and 3% of the students prefer Pen & Paper short answers.

Table no:6.1.8: Frequency distribution of satisfaction about online classes

S. No	Satisfaction about online classes	Frequency	Percentage
1	Highly satisfied	7	9.33
2	Satisfied	11	14.67
3	Neutral	27	36
4	Dissatisfied	20	26.67
5	Highly dissatisfied	10	13.33
	Total	75	100

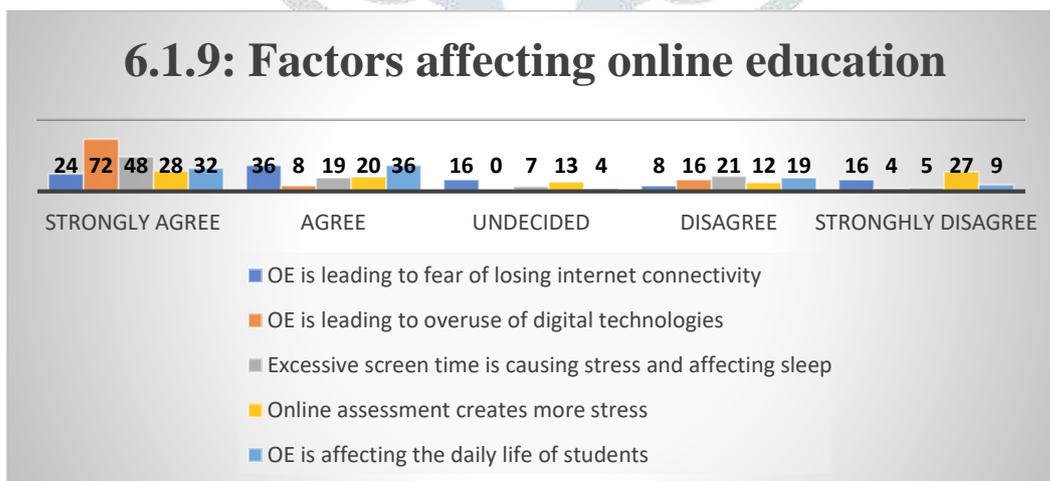


Interpretation:

The above table shows that 36% of the students are neutral about online classes, 27% of the students dissatisfied about online classes, 15% of the students are satisfied about online classes, 13% of the students are highly dissatisfied about online classes and 9% of the students are highly satisfied about online classes.

Table no:6.1.9: Frequency distribution of factors affecting online education

S. No	Factors affecting online education	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
1	Fear of losing internet connectivity	24	36	16	8	16	100
2	Overuse of digital technologies	72	8	0	16	4	100
3	Stress and affecting sleep	48	19	7	21	5	100
4	Online assessment creates more stress	28	20	13	12	27	100
5	Daily life of students	32	36	4	19	9	100



6.2. CHI-SQUARE TEST:

Table 1. Distribution of gender associates with fear of losing internet connectivity

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.557 ^a	4	.469
Likelihood Ratio	3.613	4	.461

Linear-by-Linear Association	1.679	1	.195
N of Valid Cases	75		
a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 2.48.			

Hypothesis:

Null hypothesis(H0): There is no significant relationship between Gender and fear of losing internet connectivity.

Alternative hypothesis(H1): There is significant relationship between Gender and fear of losing internet connectivity.

Interpretation:

The P value (0.046) is greater than alpha value (0.05). Therefore, null hypothesis is accepted and alternative hypothesis is rejected. This shows that there is no significant relationship between gender and fear of losing internet connectivity.

Table 2: Distribution of gender associates with overuse of digital technologies:

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.626 ^a	3	.201
Likelihood Ratio	5.787	3	.122
Linear-by-Linear Association	3.428	1	.064
N of Valid Cases	75		
a.5 cells (62.5%) have expected count less than 5. The minimum expected count is 1.24.			

Hypothesis:

Null hypothesis(H0): There is no significant relationship between gender and overuse of digital technologies

Alternative hypothesis(H1): There is significant relationship between gender and overuse of digital technologies.

Interpretation:

The P value (0.201) is greater than the alpha value (0.05). Therefore, null hypothesis (H0) is accepted and alternative hypothesis(H1) is rejected. This shows that there is no significant relationship between gender and overuse of digital technologies.

Table 3: Distribution of gender and online class create stress and affecting sleep.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.216 ^a	4	.056
Likelihood Ratio	9.611	4	.048
Linear-by-Linear Association	7.894	1	.005
N of Valid Cases	75		
a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 1.65.			

Hypothesis:

Null hypothesis(H0): There is no significant relationship between gender and create stress and affecting sleep.

Alternative hypothesis(H1): There is significant relationship between gender and create stress and affecting sleep.

Interpretation:

The P value (0.056) is equal to the alpha value (0.05). Therefore, null hypothesis is rejected(H0) and alternative hypothesis is accepted(H1). This shows that there is significant relationship between gender and create stress and affecting sleep.

Table 4: Distribution of gender and affecting the daily life of the students.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.330 ^a	4	.023
Likelihood Ratio	11.882	4	.018
Linear-by-Linear Association	9.364	1	.002
N of Valid Cases	75		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 1.24.

Hypothesis:

Null hypothesis(H₀): There is no significant relationship between gender and affecting the daily life of the students.

Alternative hypothesis(H₁): There is significant relationship between gender and affecting the daily life of the students.

Interpretation:

The P value (0.023) is less than the alpha value (0.05). Therefore, null hypothesis is rejected(H₀) and Alternative hypothesis is accepted(H₁). This shows that there is significant relationship between gender and affecting the daily life of the students.

Table 5: Distribution of gender and most effective for testing the understanding.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.451 ^a	4	.076
Likelihood Ratio	8.770	4	.067
Linear-by-Linear Association	.158	1	.691
N of Valid Cases	75		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is .83.

Hypothesis:

Null hypothesis(H₀): There is no significant relationship between gender and most effective for testing the understanding.

Alternative hypothesis(H₁): There is significant relationship between gender and most effective for testing the understanding.

Interpretation:

The P value (0.076) is greater than alpha value (0.05). Therefore, the null hypothesis is accepted(H₀) and Alternative hypothesis is rejected(H₁). This shows that there is no significant relationship between gender and most effective for testing the understanding.

7.Findings:

1. The majority of the students are male only.
2. The majority of the students are in the age of 22-24 years.
3. The majority of the students are Post graduate.
4. The majority of the students are Private.
5. The majority of the students used Mobile phones.
6. The majority of the students are distracted with various activities at their home.
7. The majority of the students prefer Online MCQ.
8. The majority of the students are neutral about online classes.
9. The majority of the students agreed that they are having a fear of losing internet connectivity, majority of the students strongly agreed that online education leading to overuse of digital technologies, creates stress and affecting sleep, affecting the daily life of them and online assessment creates more stress.
10. There is no significant relationship between gender and fear of losing internet connectivity.
11. There is no significant relationship between gender and overuse of digital technologies.
12. There is significant relationship between gender and create stress and affecting sleep.
13. There is significant relationship between gender and affecting the daily life of the students.
14. There is no significant relationship between gender and most effective for testing the understanding.

8.Suggestion:

1. Students felt that online education creates more stressful environment and it affects the sleep, so to overcome this, the institutions can regulate the schedule as per the high court order of Tamilnadu.
2. To enhance the student's daily routine in this pandemic situation the parents can spent more of their time with the child as a mentor and a good companion.
3. To improve the understanding level of students in the online mode the concepts can be taught in an activity manner
4. Even through the students spending lot of time in front of the screen as online class their mind can be distracted in the surroundings, to control this problem class can be more of interactivity session or of personality development programs
5. The government can announce the lockdown period online class as a void year so that education standards cannot be affected, and the institutions can utilize this time for their students to be expertise in their own field The students were found to be satisfied with certain features and they expressed with an attractive course .

9.Conclusion:

Although online education is proving beneficial in safeguarding student's health amid Covid-19 pandemic however it is not productive as physical learning. In this study the analysis proves that the online education creates more of stress and

affecting the personal life of the student. The students were found to be satisfied with certain features and they expressed their desire to improve some of the features of online mode in future. The institution that satisfies its students in all dimensions in online class will surely succeed.

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