



## SURVEY OF ONLINE TEACHING AND LEARNING METHODS SPECIAL REFERENCES FROM CHENNAI CITY

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### Abstract

Online teaching and learning is the method of taking classes using any mode of online app, delivery of notes or training using digital resources and this method is based on formal teaching and learning. This kind of online learning includes devices namely computers or laptop, tablets and smart mobiles by using internet. This method helps the users to learn from anywhere and anytime with some or without any restrictions. In general, online learning is a method of learning or educating people through online using any digital devices. During this Covid-19 pandemic period each and every industry worked through online mode, staffs are work from home without any lagging of their works. Each and every student was motivated to develop themselves by taking online courses and their self learning skills. This study is about online teaching methods that either helps the teachers and students in education or overburden them.

**Keywords:** online app, smart phones, E-Learning, Covid-19, pandemic.

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## 1. Introduction

Online Learning has all the study requirements to students. The tutors can take classes with their preferred timing or schedule, from anywhere. They can access the class notes, lecture videos without any interruption. Teachers can share their notes anytime after they prepared lecture notes or videos they can upload it immediately. They no need to wait for uploading the materials with the given schedule. The teachers can plan their work earlier even they have online classes. This reduces the teachers stress for missing classes for irregular or slow learners. Because the students can learn the subject without any schedule and they can clarify their doubts whenever they want from their place itself. E-learners are mostly updated knowledge people as they have sync with current technologies and the modern trends.

In E-Learning, the tutors can deliver their lessons quickly. Even the smart classrooms can have some delay or hindrance. But, in online learning provides quick and elite learning of lessons. Online way of learning is a fast way of learning subjects. With less cost we can learn the subjects even some offers free online courses for students and staff.

The courses are scheduled mostly short training period. There is no need for infrastructure, stationery and other expenses for taking classes. Students can gain subject knowledge easy and absorb subjects. The audio and video effect of online mode of teaching helps the students to remind the notes in a longer time. The tutors prepared classes in well planned manner. Also this motivates students self-learning skill and they got new ideas for solving any problems. This gives more self-confidence for students as well as teachers.

There are so many benefits in Online teaching and learning, such as, more number of times the students can make references, which is not possible in the classroom teaching. Because they can access the content an unrestrictedly, with this trending online learning. This is particularly helpful for the students during their exam time to revise the subjects. In traditional classroom learning, if students absent for a class, they have to prepare or study the topic notes on their own. Unlike classroom learning, the students can attend the class lectures whenever they want from anywhere.

### REVIEW OF E-LEARNING

E-Learning helps people to create new ideas and conduct training programs with some policies to learn quickly. This mode of learning is much cost effective compared with classroom teaching and learning. Because of reduced travel time, materials cost and trainers fees. Even by using smart phones and tablets they can learn anytime and from anywhere. Online and web-based platforms are

most helpful during this pandemic. In mode of online learning, the study materials for the students are very attractive but it needs some technical support to learn. As a result, more students felt that this online mode effectively replaces their face-to-face mode of learning[1]. The study of e-learning during COVID-19 among pre-university students with sample size is 613 and has been analyzed that the positive respond among pre-university students about online learning.

The study of online teaching or E-learning during pandemic among students [2], has the sample size 762 students and analyzed using simple percentage, chi square, mean and standard deviation concludes that the sudden and multiple changes in education system takes longer period to familiarized among students.

The study of e-learning education system during pandemic period [3], the sample size 571 including student, teachers and parents and analyzed using simple percentage, concludes that the online learning and participated frequently required courses.

The study of e-learning during pandemic period in the Saudi Arabia [4], has the sample size is 75 teachers and analyzed using simple percentage states that most of the teachers like the idea of online mode of teaching and new techniques to educate students. The report of online learning [5], has the sample size is 126 students and analyzed using simple percentage. The study has been concluded that the students have totally different learning experience with this sudden shift from offline mode of learning to online mode of learning. The review of online teaching-learning during COVID-19 [6], has the sample size is 210 which includes students and teachers and analyzed using simple percentage. This work summarized from the online survey that people felt the offline mode of learning interactivity gives more confidence compared with online learning.

The research on uses of social distance maintenance and e-learning quality during covid-19 pandemic [7] has the samples 435 students and analyzed using simple percentage and correlations. In summary of the study, the main e-learning quality factors improves institutions and organizers in a great extent. The survey on the lockdown learning for college students during COVID-19 [8] has samples 232 students and analyzed using simple percentage. The study has been concluded that the lockdown affects the academic activities during covid-19. This includes how the postgraduate students and the undergraduate students' e-learning status during this covid-19 pandemic and the challenges they faced in online study.

E-Learning Courses and Users: India is the second most populated country in the world after China. So the internet users and the E-Learners during this

Covid'19 pandemic become higher in all the countries, especially in India. Since this is the only way to learn from their home. From "Statista" report [9], till January 2021 there are 4.66 billion active internet users from the worldwide. It is 59.5% of people in the overall population, particularly there were 92.6% of people using their mobile for the internet usage (4.32 billion). Also, there are a number of mobile apps introduced and more popular among the teachers and students for learning. Some apps are very helpful and most used for the students in this pandemic situation. An Internet And Mobile Association of India (IAMAI) report [10] states that the number of internet users in India is 45% to 900 million by 2025 comparing with 622 million last year. From the report of European Digital Economy and Society Index (DESI, 2018), 70% of people likes online news reading in Europe.

In the year 2003, Indian Institutes of Technologies in Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee are initiated the National Technology Learning Program (NPTEL) for the learners, collaborating with the Indian Science Institute of Bangalore. More than a 1000 courses offered by Alison at certificate, diploma, and learning path levels based on 9 core subject categories.

In the year 2020, Alison provides a course which is based on the corona virus and that has been translated into many languages. Udeemy is an online platform that allows teachers developing or creating any the online courses based on their subject knowledge. Coursera offers courses, that has approximately 4 to 12 weeks time period, with maximum 2 hours of lecture videos in a week.

In 2020, the COVID-19 pandemic, Coursera launched a course "Science Matters: Let's Talk About COVID-19", by the Jameel Institute at Imperial College London. This was the most popular course with over 1.3 lakhs enrolled learners in that year. W3Schools is an educational website for the learners to learn the coding online. There are so many websites has been started for learners, particularly during this pandemic situation, which helps the students to learn new subjects and improves their education.

## 2. Results and Discussion:

**Sample Size:** The research was conducted with the help of 250 respondents and some data collected from net. The period covered for the study is from November 2021 to April 2022 (around 6 months). The purpose of this data collection includes the information to keep on record for the Online learning and teaching among students and staff. The primary data are those gathered from different students and staffs. It is collected for particular purpose of analysis. This includes a basic datasets, which has collected from questionnaire personally designed by the authors. Other dataset are collected from books/e-books, journals, magazines, articles and web sites.

This research also includes the survey of either online internship helps the students or not. Most of the students prefer to have their internship through offline. The survey results that the understanding levels of internships are very low in online compared with offline. But most of the students like to be an entrepreneur.

**Analytical Tools:** The researcher analyzed the dataset with the help of the following statistical tools.

Percentage analysis:

$$\text{Mean} = \frac{\text{Number of Responses}}{\text{Total Number of Responses}} \times 100$$

The mean value has been calculated by using the percentage between the number of responses and total number of responses received from the students and teachers. This research work includes the examination of 250 students and staff around the Chennai city with 170 college students and 80 teaching staff.

The respondents are from different age group, students between age group 17 to 25 and staff between age group 33 to 55, their answers and views of online learning has been changed from every one of them.

There are different opinions and results have been achieved because of their age and the living environment. Every one of them has different opinion and perspective in ELearning.

TABLE 1: STUDENTS AND STAFF SATISFACTION IN E- LEARNING FROM 250 RESPONDENTS

Question No.	Descriptions	Students (Total Respondents - 170)		Teachers (Total Respondents - 80)		Total Respondents - 250	
		Yes	No	Yes	No	Yes	No
1	Do you like on E-learning?	122	48	60	20	182	68
2	Device used for E-learning is sufficient for the class?	150	20	56	24	206	44

3	Do you have network issues during online class?	112	58	61	19	173	77
4	Quality of E-learning content is satisfied?	135	35	60	20	195	55
5	Do you like the method of online examination?	150	20	31	49	181	69

TABLE 2: STATISTICS OF E-LEARNING OF STUDENTS AND TEACHERS

Question No.	Descriptions	Students (Total Respondents-170)		Teachers (Total Respondents-80)		Total Respondents-250	
		Mean (%)		Mean (%)		Mean (%)	
		Yes	No	Yes	No	Yes	No
1	Do you like on E-learning?	72	28	75	25	73	27
2	Device used for E-learning is sufficient for the class?	88	12	70	30	82	18
3	Do you have network issues during online class?	66	34	76	24	71	29
4	Quality of E-learning content is satisfied?	79	21	75	25	78	22
5	Do you like the method of online examination?	88	12	39	61	72	28
6	Overall satisfaction towards E-learning (in %)					72	28

From Table 1, the statistical report of the E-Learning has been given from students (170 number of respondents) as well as staff (80 number of respondents) perspective. From Table 2, it is clear that both student and staff side 73% of them like online learning, but 27% were dislike. The survey of devices used for online learning is sufficient for the class, results 82% positively and remaining 18% were reported that it was inadequate. 71% staff and students told that there are no network issues during online class, where as 29% are having problem while attending the online classes. The quality of online learning content is satisfied with 78% of people. Only 22% of people were unhappy with the E-content. Many students like the method of online examination, whereas the teachers not liking it. In overall 72% liked the way of online exam and 28% not liking the online mode of exams. In general, the overall satisfaction towards online learning is 72% and 28% not satisfied with this. The mean value is calculated from the statistical data collected from the students and teachers. Both teachers and students agreeing with "Yes" represents the acceptance of the E-Learning methods and satisfied with the tools and network available for online class and "No" states that the incongruity of E-Learning methods, tools used and the poor network usage of online mode of learning.

Transformation of online nursing teacher improves their teaching methods and philosophy but having misunderstanding between students and faculties.

There is a big debate between online and offline teaching methods and people started welcoming of online learning methods. The survey of different online and offline learning and teaching methods like face to face teaching and learning,, blended way, web based and online or e-learning reports that online learning is best for students.

### 3. Conclusion

This online mode of teaching is a way to offer quick deliverance of lectures, relatively quick lecture cycles. This way of learning reduces nearly 60% of the study time. The lectures are short and no disturbances for taking classes. This enables training programs to easily move within a week or sometime even few days. E-Learning saves travel time of the student that they do not need to travel for the training venue. They can learn lessons from the comfort of their place. The study and examination is conducted with 250 students and staff around the Chennai city. The respondents are from different age group and their answers and views are also changed from every one of them. Depends on their age and the environment where they are living, their views and perspectives are changed. The overall satisfaction of the online class satisfactory is 72% from the students and staff side.

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