

# THE IMPACT OF THE COVID-19 EPIDEMIC ON UNDERGRADUATE STUDENTS' ATTITUDES TOWARD ONLINE LEARNING IN TIRUNELVELI DISTRICT, TAMIL NADU

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**Abstract** *Purpose:* The COVID-19 outbreak has had a significant impact on the educational system around the world. It forced the shutdown of educational institutions. COVID-19 mandated containment and enforced seclusion, which significantly impacted teacher-student interactions. In the absence of traditional classroom teaching and one-on-one connection, computer-based learning has evolved as a connecting substitute for offline instruction. It is essential to look at how students feel about online learning and whether they are ready for it.

**Design/methodology/approach:** This study took a quantitative approach with a survey via the internet. 260 students answered the questionnaire.

**Findings:** According to respondents (24%), access to internet resources (65%), Stay-at-home flexibility (63%), you can learn at your own speed (53%), comfortable surroundings (41%), class interactivity (31%), and the ability to record a meeting were the top benefits of online learning, according to respondents (24%). The lack of practical knowledge was cited by the majority of responders (66%), followed by technical problems (65%), reduced interaction with the teacher (62%), poor learning conditions at home (42%), and lack of self-discipline (33%) as the main disadvantages. When it comes to opinions on the potential of the learning approach to develop knowledge, Face-to-face and online learning had no statistically significant differences. However, online learning was less successful than face-to-face learning in terms of enhancing abilities and social competence. In comparison to regular classes, students thought that online classes were inert. E-learning was deemed uninteresting by 41% of those polled. E-learning is an effective method of instructing students. Integrating online learning into the curriculum, on the other hand, necessitates a well-thought-out strategy and a more proactive approach.

**Keywords** E-Learning, COVID-19, Undergraduate, Students' Perception

## INTRODUCTION

The COVID-19 pandemic has wreaked havoc on education in a number of colleges, particularly among Tirunelveli's undergraduate students. Traditional face-to-face classes must be halted in many nations, including India, to safeguard the safety of students and lecturers. Higher educational institutions had to find another approach to teaching graduate students to minimize the impact of lockdown. Fortunately, the COVID-19 epidemic allowed electronic learning (e-learning) to become the primary means of imparting knowledge. E-learning is the application of information technology to improve educational quality [1]. Online teaching is now widely used in undergraduate education, not as a stand-alone method but as part of a blended strategy that includes traditional teacher-led instruction [2, 3].

The importance of information technology in education cannot be overstated, given its huge impact on human existence. Information technology serves as the solution for ongoing learning during this quarantine time through

innovative learning management systems. The online learning platform is well-known and well-liked by educational institutions and students worldwide. Easy usage, learning flexibility, and customizable surroundings are the reasons for its acceptability [4, 5]. It has allowed educators to use IT to construct teaching and evaluation solutions for students' coursework completion. The simplicity of use, learning flexibility, and a configurable environment are all factors that contribute to acceptability. However, despite its numerous benefits, e-learning has several drawbacks, including social isolation, the face-to-face connection between teacher and student, connectivity issues, among others [6]. Many aspects influence e-performance and learning, including accessibility, the use of appropriate methodologies, course content, and evaluation criteria. Like any other teaching approach, e-learning offers benefits and drawbacks for both students and teachers. Limited internet access, poor internet connection quality, and respondents' lack of digital skills are all issues that arise in online classes. Some advantages, such as scheduling flexibility, can also be disadvantages, particularly for students who lack self-control.

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## LITERATURE REVIEW

In recent years, there has been an important increase in research that examines students' views on e-learning and their expectations [7, 8]. Because of its expanding acceptance, the "National Center for Education Statistics" has observed an increase in the demand for e-learning. According to multiple studies, most students participating in online courses are satisfied with their learning experience. However, research shows that various factors influence how students perceive themselves [9-11]. This study is based on the students' knowledge, expectations, and attitudes about e-learning. To uncover probable answers, relevant literature is studied, particularly in users' perceptions of innovation. Online education is still relatively new, constantly evolving due to fast-changing technologies. To improve student learning, all online educators must put more effort into integrating pedagogy with technology. In summary, online discourse as a communication activity could be extremely beneficial to students or learners in today's online learning environment by providing a space for information exchange and deeper thinking. However, only if instructors are aware of how it works and how students learn in an online environment will they help pupils [12]. Age, gender, past computer literacy, and individual learning styles are important indicators of student technology acceptance. Much research analyzes students' attitudes using "technology acceptance" ideas [13]. Online learning is another form of distance education, e-learning, blended learning, computer-based learning, web-based learning, virtual learning, tele-education, cyberlearning, Internet-based learning, and distributed learning [14]. However, many individuals assume that online learning is just one sort of distance learning outside of a regular classroom and takes place over a long distance. Students can communicate in asynchronous, synchronous, or mixed modes in online education. When teaching and learning occur at various times, this is known as asynchronous learning [15]. Wiest examined effective online educational strategies, such as course design, participant interaction, and teacher preparation and support [16].

## METHODOLOGY

The method of this research was quantitative and descriptive, using a survey. The sample was all of the undergrad students in the Tirunelveli District. A quantitative technique was taken, and a survey was conducted by delivering an online questionnaire to students to collect information about the students' attitudes towards online learning during COVID-19. 260 students answered the questionnaire. During this ongoing epidemic, the researcher used SPSS (version 22) software to examine students' views toward online learning and analyse the benefits of online learning.

## RESULTS AND FINDINGS

The survey was disseminated at random via an online form on Google Docs for primary data collection. Tirunelveli District's undergraduate students have been contacted through social networking sites. The students' demographic profile, the device they use to access online learning, the length of time they spend on the computer, and their impression and attitude toward e-learning are all shown below.

### Respondents in the Sample

The information in this area pertains to university students in general. Results of questions about gender, age group, course and level of education are shown in Table 1. Primary data is the only source used to compile the information you will find here.

**Table 1: Personal Information of Sample Respondents (N = 260)**

Variables	Category	Frequency Distribution	Cumulative Frequency	Percentage
Gender	Male	92	35	35
	Female	168	100	65
Age Group	18-20	112	43	42
	21-30	120	89	46
	31-39	28	100	10
Year of Study	I Year	61	23	23
	II Year	119	69	46
	III Year	80	100	30
IT Skills	High	98	100	37
	Moderate	153	62	58
	Low	9	4	4
Previous Experience in E-Learning	Yes	54	100	21
	No	206	79	78

Table 1 shows the gender, age group, degree of education, academic year, sample respondents' current status, and personal information. According to the above table, most of the sample respondents (65%) were females, while 35% were males. 46% of students are between the ages of 21-30, 42% are between 18-20, and 10% are between 31-39. None of the responses are over 40, and only one is between 31 - 39. The voice of the youth is represented by respondents in the 21-30 age bracket. Students are justifiably distributed as per their academic year of study. As presented in Table 1, 23% of respondents are in their first year, 46% are in their second year, and 30% are in their third year. A total of 54 (21%) students had previous experience with e-learning, whereas 206 (78%) had no experience. A total of 153 (58%)

respondents said their IT abilities were good, 337 (42%) said they were average, and 9 (4%) said they were poor.

### The Benefits and Drawbacks of E-Learning

The most often reported benefits of e-learning by respondents were the ability to Stay-at-home flexibility (85%), Internet resources (73%), learning at your own pace (67%) and comfortable surroundings (44 %). The primary disadvantages, according to the majority of respondents, are a lack of self-discipline (54%), a lack of practical knowledge (50%), and social isolation (35%). (Table 2).

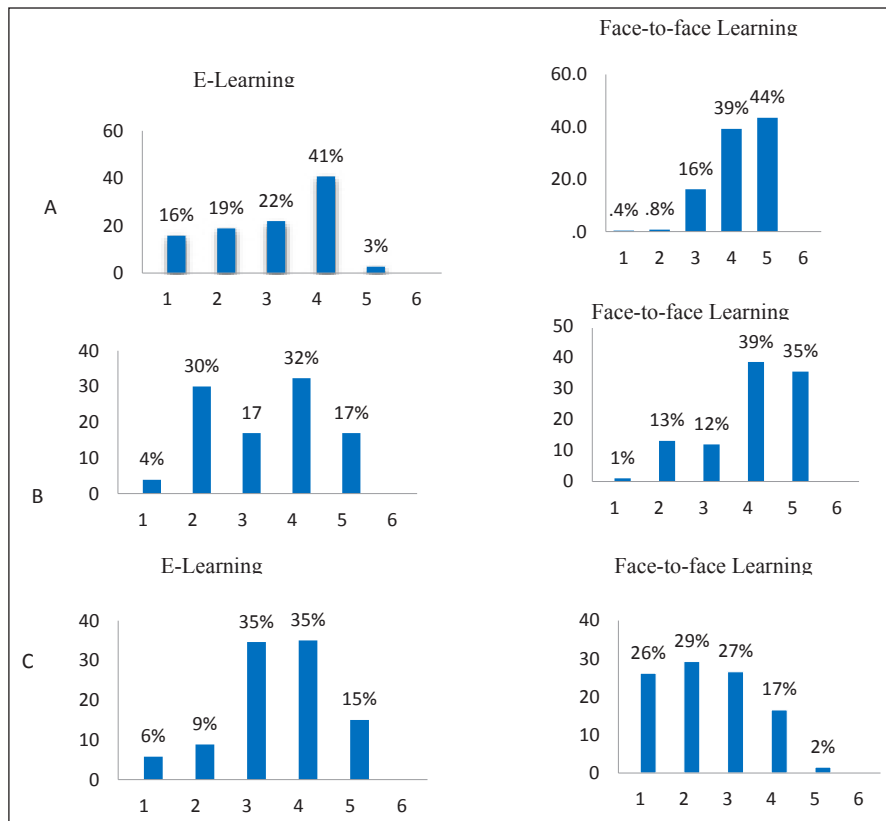
Variables	Frequency	Percentage
Ability to record a meeting	105	40
<b>Disadvantages of online learning</b>		
Reduced Interaction with the teacher	185	70
Technical problems	185	70
Lack of practical Knowledge	131	50
Poor learning conditions at home	195	74
Lack of self-discipline	141	54
Social isolation	93	35

**Table 2: The Benefits and Drawbacks of E-Learning**

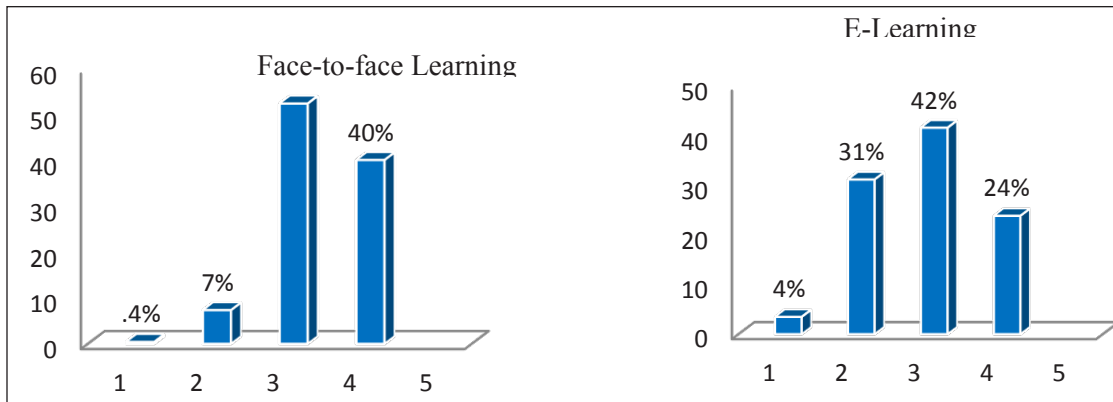
Variables	Frequency	Percentage
<b>Advantages of online learning</b>		
Access to Internet resources	191	73
Stay-at-home flexibility	222	85
You can learn at your own speed	174	67
Comfortable Surroundings	115	44
Classes interactivity	82	31

### Comparison between Face-to-Face and Online Learning

There was no statistical difference between face-to-face (M = 4.25) and online (M = 2.96) learning in terms of ideas about the usefulness of the learning strategy to improve knowledge. In terms of improving skills (M = 3.94, M = 3.28, respectively) and social competencies (M = 2.38, M = 3.42, respectively), e-learning was found to be less successful than face-to-face learning (Fig. 1). Students reported being less engaged in online classes (M = 2.86) than in regular classes (M = 4.32) (Fig. 2).



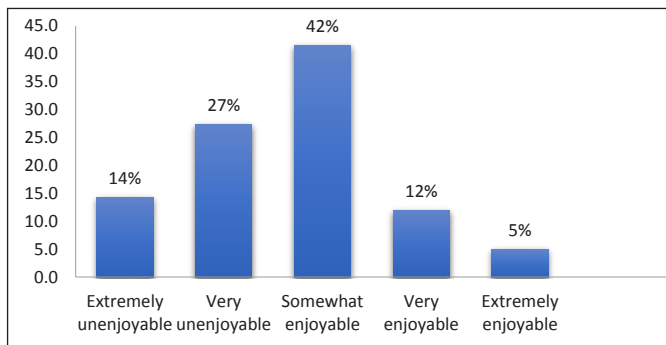
**Fig. 1: During Face-to-Face and E-Learning, Students' Perceptions of Their Capacity to Gain Information (A), Practical Skills (B), and Social Skills (C). A Likert Scale was Used by Respondents, with 1 Indicating Ineffectiveness and 5 Indicating Effectiveness**



**Fig. 2: Students’ Activity Levels during Face-to-Face and Online Learning, 1 Indicating Inactivity and 5 Indicating Severe Activity**

**E-learning Acceptance**

E-learning was viewed as somewhat pleasurable by 108 (42%). Of these, 71(27%) found it very unenjoyable, 37 (14%) found it very extremely unenjoyable, and 31(12%) found it very enjoyable. A total of 13(5%) students only enjoy online learning (Fig. 3). The replies provided by students in their first three years of study and those provided by students in their subsequent years of study did not differ statistically significantly. Female and male pupils showed no statistically significant differences.



**Fig. 3: Acceptability of E-Learning, with 1 being Extremely Unenjoyable and 5 being Incredibly Delightful**

**DISCUSSION**

During the COVID-19 pandemic, this study explored how undergrads in the Tirunelveli District felt about online learning. Our study indicates that out of 260 students, 41% showed a negative perception of e-learning, of which 42% felt e-learning had little impact on their learning.

The majority of the students preferred face-to-face teaching

over e-teaching. The study’s most important finding is that pupils are not ready for e-learning. In our poll, respondents recognized the ability to study when and where you want and easy access to educational materials as the top benefits of online learning. Learning materials can be swiftly given to students, standardized, and updated, if necessary, thanks to e-learning [17]. There are two methods for students’ knowledge: self-directed and instructor-led learning. E-learning that is self-directed allows the learner to be in charge of his or her activities. According to Peine et al. [18], self-directed e-learning beats traditional face-to-face learning. There are certain drawbacks to e-learning. The lack of engagement with teachers was the primary issue for respondents in the poll, particularly those in their first, second, and third years of study. This outcome aligns with previous research on how students felt about online classrooms throughout the pandemic [19-21]. Surprisingly, more than 78% of those who responded to our survey had never used e-learning before the COVID-19 outbreak, which could explain why technological challenges were the study’s second-biggest drawback. E-learning necessitates a strong internet connection and the appropriate hardware and software [22, 23].

Before and throughout an online course, all undergraduate students should be familiar with the equipment, and the IT department should give technical support and teach the course. Self-learning necessitates self-discipline, which is difficult to do without direct teacher supervision. Insufficient contact between learners and facilitators and a lack of clarity regarding the learning’s purpose and goals may stymie the learning process [24, 25].

**CONCLUSION**

This study found that e-learning can be a useful tool for teaching pupils. According to the respondents in our poll,

e-learning boosts knowledge and is widely accepted. However, it is critical to focus on expanding one's knowledge and developing practical and social skills students claimed that they were less active in online classes than in normal classes e-learning to be successful; students must interact with the resources and receive feedback.

## RECOMMENDATION

The study's recommendation is to explore further factors influencing students' perceptions of e-learning. It is also recommended to explore the perceptions of Faculties regarding their experience towards e-teaching during the COVID-19 lockdown.

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