

OPEN ACCESS

Manuscript ID: COM-2022-10014597

Volume: 10

Issue: 1

Month: January

Year: 2022

E-ISSN: 2582-6190

Received: 20.10.2021

Accepted: 24.11.2021

Published: 01.01.2022

Citation:

Arumugam, U., and M. Manida. "Covid-19: Transformation of Edtech in India from Real to Virtual: An Analysis of Issues and Challenges by University Students in Tamilnadu." *ComFin Research*, vol. 10, no. 1, 2022, pp. 80–91.

DOI:

https://doi.org/10.34293/ commerce.v10i1.4597



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Covid-19: Transformation of Edtech in India from Real to Virtual: An Analysis of Issues and Challenges by University Students in Tamilnadu

U. Arumugam

Assistant Professor Department of Corporate Secretaryship Department of Commerce, Alagappa University, Karaikudi, Tamil Nadu, India

M. Manida

Full- Time Ph. D Research Scholar Department of Corporate Secretaryship, Department of Commerce Alagappa University, Karaikudi, Tamil Nadu, India

https://orcid.org/0000-0002-2605-1645

Abstract

Edtech refers to innovative technical implementations in the classroom teaching management. In-classroom tablets, interactive outcrop screens and whiteboards, online fulfilled delivery, and MOOCs are all examples of EdTech. However, the existing crisis of the COVID-19 pandemic forced the intact planet to confide on it for learning. To estimate the university student's perceptions, evaluate their experiences, recognize their barriers, challenges of e-learning during the COVID-19 pandemic, and examine factors influencing the getting and use of e-learning as a tool teaching within higher education. Data was collected using a Google form questionnaire among Students of University in Chennai. Researcher prepared the Percentage Analysis, Mean Analysis, Chi-square Analysis, This study highlights the challenges and factors influencing the acceptance, and use of e-learning as a tool for teaching within higher education.

Keywords: COVID-19, Google Meet, KPMG, MOOCs.

Jel Code: E66, C87, L63

Introduction

Edtech is the joint utilization of PC learning and information gathering for online based platform, programming, and instructive hypothesis and practice to make simple learning. When alluded to with its ellipsis, EdTech, it is regularly alluding to the industry organizations that make instructive technology1. EdTech startups have developed as an alternative to educational delivery, with E-learning as the way forward, these EdTech apps were adopted to ensure the consistency of the classes and also to build a powerful system of education (Zahoor Ahmad Lone (2017). To make internet assessments efficient, include performance assessment, authentic appraisal, projects, portfolios, self - assessments, peer assessments, and weekly assignments that embrace chat coursework (Ashish S. Bhaisare et al (2020). Covid 19 situation makes the entire educationalist as well as the professor to think about the online classroom preparation for the benefits of student's in order to provide uninterruptable education. This online classroom teaching will build the students to keep in touch with the subjects and make them to educate (S. Ganesh kumaran, et al (2020). As per KPMGs Online training in India: 2021 report, by 2021, the business could be valued at \$1.96 Billion. For all the challenges that the Indian training framework is confronting, EdTech has an answer. EdTech brings to understudies a large group of choices for

intelligent learning. Among the rundown choices remember the video coding and innovation, language learning courses, serious test arrangements, on-request guide revelation, and gamification of the learning venture. India is a nation where the educator to understudy proportion is consistently on the unfortunate side. Understudies infrequently stand out enough to be noticed and the freedom to ask and explain questions on an individual premise. EdTech offers an extensive response for all of this and significantly more. One size fits everything model doesn't work any longer: According to previous CBSE executive Ashok Ganguly, The one-size-fitsall-hypothesis doesn't work any longer. We should guarantee the appropriate utilization of innovation at each degree of instruction. Each subject, each course, and every understudy need a customized technique of discovering that is self-guided.

EDTECH Startups In India Byju's

Started by Byjus Raveendran and Divya Gokulnath, BYJU's are the world's most valuable edtech company. The startup offers Disney Byjus early learning App for LKG to the 3rd-grade student, Byjus's App for grade 4-12 students & CBSE/ICSE/State board and competitive exam preparation (JEE, NEET, CAT, and IAS) and coding for kids.

Unacademy

Ranked number 4 on LinkedIn top startup list, Unacademy aims to build the world's largest online knowledge repository for multi-lingual education. As per the startup, it daily conducts 2000+ live classes. And in February 2021, Unacademy acquired a majority stake in Tap Chief.

Ingenium Education

Started by Pramudit Somvanshi, Mohit Patel, and Aakash Gupta, Ingenium Education claim to be the world's first macro skill-based adaptive assessment solution for K-12 students.

Advantages of Edtech in India

- Access to variety of resources
- Enhancing learning atmosphere
- Anytime & anyplace education
- Classroom based distance education.

- · Social platform for a classroom to network online
- Mobile based education management systems
- Learning apps.

Review of Liteature

Yasmeen Shamsi Rizvi and Asma Nabi (2021), Concluded that The COVID-19 pandemic has struck hardest the least advantaged and highlights the unkind reality of educational inequality. When we look to restructure, we have to ensure that the inclusive defy of literacy is final and effectively addressed, it is vital that literacy is incorporated into the global and national COVID-19 responses and recovery plans for learners of all ages. We need to ensure learning continuity, enlarged access and strengthened general lifelong learning programs and capacities. We have to throw in the opportunities for open and distance learning. The value of the education depends heavily on digital way in levels and openness.

Tashmin Khamis, et al (2021), concluded institutions will need whole-systems approaches within which organizational growth leads to effective programmatic offerings. Problems associated with online learning are like downloading errors, matters with installation, login complications, problems with audio and video modulations, time managing, boring and unengaging, lack of community, technical problems, and difficulties in understanding instructional goals, etc.

Michael Zisuh Ngoasong (2021), Observed the perspectives of senior university leaders and academics. Online learning designs are shaped by the teachers' perceptions of their students' learning needs, which are in turn drawn upon to adapt the teaching activities to online learning to enable the students to acquire the equivalent knowledge and skills that they would have developed in a face-to-face class-room-based environment.

Daniela Pusca & Derek O. Northwood (2021), Highlighted that there is a continuous need to monitor technology evolution, to set future goals, and to encourage an enduring culture to bring the needed modify teaching and learning. This requires co-operation between all parties fretful, an open intelligence, and fulfillment to clinch change, and to find out and adapt to latest useful developments. Any technology-enhanced education locality necessity is

instructional, informational, rousing and involving. The instructional modules should be designed to allow the use of exact teaching and learning tools in a quest to attain an improved teaching and erudition experience through assurance, critical thinking and creativity.

Dr. Robi Augustine, Ms. Sheedhal K Reji (2021), Observed that Covid-19 remarkably shifted the entire humanity and a new normal was maintained everywhere including the education sector. Colleges and universities of the world suddenly shut down to maintain social distancing and to avoid the spread of the virus. Online teaching was the only solution for the teaching fraternity and consequently online learning for students during the lockdown period, though it was a sudden shift from the traditional mode of teaching and learning. Since it was a new experiment for both the student fraternity and teaching community its effectiveness must evaluate as well as proper feedback must be collected for further improvement since this mode may continue in the future too.

M. Abisha Meji et al (2020), concluded that to improve the excellence of online education the government must ensure the availability of computers and dependable network for all students. Secondly, the education sectors create an official online virtual platform for e-learning for students to freely access all the information they need beforehand. A special network should be provided to avoid network traffic. Counseling should be given to the teachers and parents to stimulate the students to involve in the eLearning classes and guide the students for successful learning.

Sandeep Kumar Mathivanan et al (2021), Observed that COVID-19 had an incredible change in the educational sector in India. Although it has raised numerous challenges and various opportunities, it has also progressed. Universities and India's government are persistent trying to develop a solution for India's education process. The conception of "work from home" has greater significance in such a contagious condition to decrease the transmission of COVID-19.

Adam P. Sullivan, et al (2018), observed that while the findings of the existing revise support the effectiveness of screen cast technologies within the Information Systems curriculum, further research is

needed to evaluate the ability of screen cast content delivery to ground based, or established classroom teaching. An expansion of this work could compare instructor- led show to screencast videos. Such a study could resolve the freedom process that might be superior, in terms of effective knowledge transfer of Information Systems concepts. To conclude, a more healthy study of screencast technology could scrutinize the design best practices essential for creating successful educational content.

Pani et al., (2015) reveals the challenges in e-Learning faced by reputed management schools in India. They also propose to emphasize and action taken by the management to overcome this issue.

Zahoor Ahmad Lone (2017), Concluded that the way edtech has evolved is interesting to see. While originally it expected at providing a pleasurable alternative to learning activities in terms of education-related games and platforms in universal, they have now come all the way to including technologies dedicated to enhancing learning and education itself.

Rizvi, Y.S et al (2021), in their researcher recommended that challenge looking to scholarly foundations isn't in every case best to find and utilize new innovations yet moreover to rethink its educational program, therefore supporting understudies and instructional staff looking for controlling for advanced proficiency. Instructors can gift the educational program in unmistakable organizations, that is, the use of films, sounds, and texts. It's advantageous on the off chance that teachers supplement their talks with video calls; advanced gatherings, etc. To get immediately enter and save a communication with the researchers for the length of the talk. Cooperative technique for training eventually of online classes must be inclined toward. Understudy personnel dating should be developed as undergrads determine generally the level of fulfillment from student educator collaboration. Scholarly establishments need to assemble a stage through advance aide that might train educators and understudies while heading to get admission to and utilize diverse e-learning structures, and a method for cowling exact educational program fabric through these gadgets, subsequently limiting computerized ignorance. Understudy deal with issues with live guidelines, utilization of fitting symbols, MS office,

projects and sites identified by verbal trade, and so on Frequently they don't know time capacities like login, live classes, work improvement and accommodation, contact with instructors and pals. Understudies ought to have get right of passage to help gadgets that could assist them with overcoming mechanical difficulties via calling, messaging or visiting stay. The most typical obstacle understudy going through at some stage in on-line instruction is specialized troubles. Preparing and instructing is a focal occupant in preparing every workforce for web based educating and hence fighting with their obstruction.

Objectives of the Study

- To identify Transformation of Edtech in Chennai during covid 19.
- To know the Students preferred methods of online teaching/learning (OT/L)
- To analyze Challenges faced by students during online studies.

Methodology

The researcher Data collected through the Google form of questionnaire in the study area. My target responds in students in my region. Secondary data of the thesis paper collected data the various Journals, Books, Magazines, Publications, Reports, Websites, etc. This paper, sample size are 120 respondents of students of Tamilnadu. This paper Sampling Method is Convenience sampling method. My total Size of the Population in unidentified. So I used the convenient sampling method.

Hypothesis

H₀: There is no relationship between personality factors and challenges faced by students during online studies.

H₁: There is no relationship between personality factors and students preferred methods of online learning.

Transformation of Edtech in Chennai During Covid 19

While school systems in India and across the world have made efforts to reach students at home through various means, modern estimates of the force on learning and socio-emotional well-being suggests that the poorest children will be hurt the most by the pandemic-related school closures. Thus, an important question is to what extent will student learning and progression in school, especially among primary-school-aged students in low- and middle-income settings, be affected by the global university education closures? Further, how will the COVID-19 university closures cause inequality in learning among girls and boys, among poor and affluent students, and across communities and countries of varying income levels?

Chennai is the largest urban center in Tamil Nadu and is India's sixth most heavily populated city. The purpose of this study is to identify gaps and test in the use of education technology (Ed tech) in Chennai, Tamil Nadu during COVID-19. Specifically, we examine how use of ed tech differed by type of school (government or private), household socioeconomic status, and student gender and how it changed during the COVID-19 college closures. Ultimately, we required to know how the utilize ed tech may aggravate or moderate the unequal impact of college closures on student learning (Emiliana Vegas, et al (2021). Our study data showed that access to ed tech in college and households before the pandemic was extremely limited and differed by household socioeconomic background and the type of college (government or private) students attended. Thus, we also explored educational activities from non-ed-tech sources that may have taken place. Our examination findings indicate that during the pandemic-related college closures, students in private colleges and those from high-socioeconomic status households have more access to digital devices and are more engaged in regular educational activities during COVID-19 than their peers in government colleges and from low-socioeconomic status households; findings also indicate that girls are more likely than boys to have access to digital devices for learning and to engage in more regular educational behavior. Obviously, parents turned out to be a major source of the educational activities of young students during the college closures. Frighteningly, university students in our sample were enrolled in colleges that do offer any remote instruction during the university closures, and even among the student whose colleges

had begun isolated teaching, only slightly more than partially attended all the classes.

Students Preferred Methods of Online Teaching/ Learning

- Experiment with graphical presentations
- · Use virtual white board
- Try out flipped classroom method
- · Take live online classes more often
- Exercise strong group discussions and debates
- Record screens and videos by using different tools
- Use Artificial Intelligence for improving teaching techniques
- Make use of templates for different purposes
- Incorporate the technique of self-study

Experiment with Graphical Presentations

Presentations are one of the best methods to position forth a concept. Apparently about 65% of the population are visible newcomers. More than just lectures, in case you put into effect innovative visuals and slides, the retention of the topic supplied will boom significantly. Using best your phrases or absolutely depending at the slides doesn't work. It has to be balanced. Also, have a lively interplay together with your college students periodically. This will preserve them interested and additionally, concentrate higher. You can also assign students to present shows as well. This manner they have an alternative of self-gaining knowledge of and may begin developing presentation competencies from a younger age. Your presentation needs now not continually be connected to the difficulty handy, you can also encompass a few stories and make it more thrilling and indulging.

Here are a few tools you can use to create a presentation-

- · Microsoft PowerPoint
- Google Slides
- Slide Share

Use Virtual White Board

Written mind can be usually put throughout more efficaciously than mere spoken phrases. There is an opportunity for college students missing many crucial factors if the lectures are handiest vocal. With the new digital teaching techniques being into play, the age antique word taking device has additionally developed and end up virtual too. This is the time of online whiteboards. There are tons on line tutoring software that provides distinct functions that will help you teach in reality greater efficaciously. You can use- images, connectors, and text on those boards. There are many techniques you can use, like – mind mapping, graphical representation, Venn diagrams, flowcharts, etc.

Try Out Flipped Classroom Method

This has verified to be one of the simplest online coaching techniques due to the fact that its inception. About nine out of 10 instructors have observed a superb trade in scholar engagement. This method is totally the other of what the conventional method stands for. Here the scholars review and put together for the magnificence-to-come by means of analyzing the material organized ahead. One of the primary techniques in a flipped study room is pre-recorded look at materials. You can either tape your very own or if the feasible percentage your colleague's films as well. You also can percentage these films the usage of a much wider platform such as YouTube in order that it is easier for a larger pupil base to get right of entry to it.

Take Live Online Classes More Often

This is the most effective synchronous manner wherein in a -manner communication is viable actual-time. To say the least, you may be able to instill a personal contact for all your instructions, although you might not be present there bodily. Taking stay digital instructions will help you to know not handiest maintain an eye fixed at the student while you're coaching it additionally helps them in assessing their progress in real time. Depending on the reaction on your lessons you have the advantage to change the technique or adjust to fit them on the move.

Exercise Healthy Group Discussions and Debates

One of the primary terrible consequences of online tutorials is the sense of isolation. Hence, so one can limit this as lots as possible, do behavior institution discussions, and make way for healthy debate systems and other varieties of crew activities. This will not only help them get extra concerned with what's being taught and in accelerating their gaining knowledge of procedure but additionally really socialize. You can also have a monitored organization chat window to help you and others from your elegance be related. This can be a forum for situation related discussions and also help to clean any of the scholars' doubts and queries right now.

Record Screens and Videos by using Different Tools

In case of online instructions, the teachers and the students want to create many films. The students want to make video presentation as part of assignments so one can provide an explanation for their work or information about the idea. The instructors want to report the stay coaching session or create a response video to the queries requested with the aid of college students. There are special tools to be had that can assist to create such movies with absolute ease. These gear allow the teachers or students to capture videos, upload captions, add images or feedback and trim them as well. Some of these tools permit the academics and college students to feature track if required. These films may be later uploaded on Cloud or YouTube for sharing purposes. Thus those gear are available in on hand for the duration of on line instructions.

Use Artificial Intelligence for Improving Teaching Techniques

Artificial Intelligence is one of the less explored, but extremely powerful technologies, mainly within the educational area. It can prove very beneficial if it is customized as the online instructional necessities. Artificial Intelligence may be used to research the performance of students. The AI powered equipment can examine and compare students' performances in unmarried in addition to a couple of different topics. They can generate a specified evaluation record of every student in the classroom that could help the teachers understand wherein a specific pupil is lagging. The teachers can accordingly give more consciousness of those college students who're weaker in research. AI also can assist the teacher

to locate appropriate teaching strategies which the teachers can comprise in order that the scholars apprehend the ideas easily and might thus maintain them for a longer duration.

Make use of Templates for Different Purposes

It is scientifically validated that students can fast recognize and hold information for longer length if taught the use of photos or diagrams. Many templates are available on-line which can assist instructors put together magnificence schedules or create a lesson plan and share them with the students. These templates can help instructors and students to prepare displays which can consist of photos, Education pictures, pics, diagrams, and so forth. A Report Card Template would assist the teachers to song each scholar's development and upload it to the record card. The teachers can share these graphical file cards with the scholars at the cease of the semester. There are many more such templates to be had that may allow the teachers to give an explanation for essential subjects in a a laugh and exciting way which might help college students to not best apprehend them but also don't forget them.

Incorporate the Technique of Self-Study

It has been located that the scholars who received top marks at some point of their board assessments have given more emphasis on self-observe. The same approach can be carried out on online teaching, but in a bit distinct manner. The teachers can assign topics to students, which they need to examine on their very own. This helps the students to discover the subjects in their own favored ways, according to their areas of the hobby. This type of coaching method will assist each scholar to herald an exceptional and new attitude even as know-how the topic or idea. This can even help the scholars to install extra efforts no longer best to apprehend the topic, but additionally to provide an explanation for it to others of their very own words. Self-have a look at will enable the scholars to locate methods of mastering new concepts in the approaches that interest them and also help to find their hobby even in the most complex topics. These are not the simple strategies. You can both comply with one in every of those or you could adopt other experimental techniques and spot what

works for you and your students. You will learn and evolve with revel in. It is sort of not possible to get the whole thing properly at the very first try. So, take a deep breath and hold your hard work.

Analysis of the Study

This chapter deals with the primary data analysis and interpretation of the demographic variables in the Transformation of Edtech in India from Real to Virtual: An Analysis of Issues and Challenges of Students. The data were collected from 120 respondents in Chennai. The responses of the respondents were obtained through a structured questionnaire that has been compiled and analyzed

using the following statistical tools in tune with the objectives of the study.

- · Percentage Analysis
- Mean Analysis
- Chi-square Analysis

The interpretation has been made based on the above-mentioned analysis.

Personal Factors of the Respondents

The social and economic characteristics are composed of (a) Gender-wise classification, b) Agewise classification, (c) Education of sample holders (d) Institution (e) Most effective digital device for E-Learning (f) Participatation e-tools in E-Learning

Table 1: Personal Factors of the Respondents

Variables	Factors	Respondents	%	Mean
Candan	Male	62	51.70	60
Gender	Female	58	48.33	
	Below 20	62	51.67	
Age	21-30	43	35.83	
	Above 30	15	12.5	
Education	UG	73	60.83	
Education	PG	47	39.17	
Total Com	Private	61	50.83	
Institution	Public	59	49.17	
	PC	45	37.5	
Most effective digital device for E-Learning	Laptop	26	21.67	
	Smartphone/iPad	49	40.83	
	Google Class	60	50	
Participatation e-tools in E-Learning	Learning	42	35	
	Microsoft Tools	18	15	

Source: Source: Primary Data, Computed

Chart 1

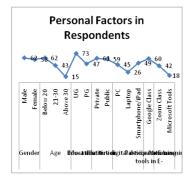


Chart 2

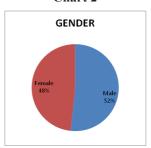
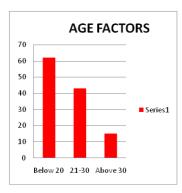


Chart 3



Interpretation

Above Table.1 highlighted the Majority of the

Analysis of Likert Scale Analysis

Table 2: Analysis of Likert Scale Data on Challenges Faced by Students during
Online Studies in Chennai

	ComFin Research
res	spondent's profile.
•	Majority 51.70 % of the respondents are Male.
•	Majority 51.67 % of the respondents are their age

- group up to "Below 20 years".

 Majority 73 % of the respondents Education
- Level PG.Majority 50.83 % of the respondents Institution
- in Private education institute.

 Majority 40.83 % of the respondent's most
- Majority 40.83 % of the respondent's most effective digital device for E-Learning in Smartphone/iPad.
- Majority 50 % of the respondents Participate e-tools in E-Learning in Google meet.

Challenges faced by students during online studies	SA	A	NOR	DA	SDA	∑fx	Likert scale value (∑fx/ ∑f)	Rank
Inadequate bandwidth and network connectivity issues	135	92	123	58	0	408	3.400	VIII
Unsuitable home Environment for Attending online classes	305	100	84	12	0	501	4.175	I
Feeling of isolation and demotivation due to lack of face-to-face student-faculty and student-student interactions	270	124	69	20	2	485	4.042	III
Excessive screen-time, causing fatigue	245	148	78	07	1	486	4.050	II
Time management	210	136	72	36	2	456	3.800	IV
Lack of e-library	155	112	90	46	8	411	3.430	VI
Difficulty in understanding calculation-based subjects	145	120	87	52	6	410	3.420	VII
Device breakdown	180	116	75	54	3	428	3.57	V

Source: Primary Data, Computed.

(SA- Strongly Agree, A-Agree, Strongly Agree Nor Agree, DA-Disagree, SDA- Strongly Disagree)

Above the Table. 2 From the above table Analysis of Likert Scale Data on Challenges faced by students during online studies in Chennai with Unsuitable home environment for attending online classes (4.175), Excessive screen-time causing fatigue (4.050), Feeling of isolation and demotivation due to lack of face-to-face student-faculty and student-

student interactions (4.042), Time management (3.800), Device breakdown (3.57), Lack of e-library (3.430), and Difficulty in understanding calculation-based subjects (3.420), Inadequate bandwidth and network connectivity issues (3.400).



Table 3: Analysis of Likert Scale Data on Students Referred Methods of Online Teaching/Learning in Chennai

Students referred methods of online teaching/learning (OT/L)	SA	A	NOR	DA	SDA	∑fx	Likert scale value (∑fx/ ∑f)	Rank
Live lecture delivery by your faculty	260	180	60	06	0	506	4.22	I
Article/case study/discussions facilitated live by your faculty	245	164	84	12	0	497	4.14	II
Self-study material shared by faculty via email/WhatsApp/Google classroom, etc	255	152	63	20	0	490	4.08	IV
Recorded lecture videos of your faculty	270	140	72	12	1	495	4.13	III
Topic-related videos from YouTube etc (non-lecture video)	225	116	81	38	0	460	3.83	VI
Complete substitution for faculty led online classes with certification courses through education portals such as Swayam, Coursera, Udemy etc	260	84	75	40	2	461	3.84	V

Source: Primary Data, Computed.

(SA- Strongly Agree, A-Agree, Strongly Agree Nor Agree, DA-Disagree, SDA- Strongly Disagree)

Above Table. 3 From the above table Students referred methods of online teaching/learning in Chennai with Live lecture delivery by your faculty (4.22), Article/case study/discussions facilitated live by your faculty (4.14), Recorded lecture videos of your faculty (4.13), Self study material shared by faculty via email/WhatsApp/Google classroom, etc (4.08), entire substitution for faculty led online classes with certification courses through education portals such as Swayam, Coursera, Udemy etc (3.84), and Topic-related videos from YouTube etc (non-lecture video) (3.83).

Calculation of Chi-Square Test

H₀: There is no relationship between Gender factors and challenges faced by students during online studies.

The formula used for calculation of chi-square value is as follows:

Where, O = Observed Frequency E = Expected Frequency

Table 4

Gender	Unsuitab	Total					
Genuer	SA	A	A NOR DA	DA	SDA	1 Otai	
Male	39	21	15	04	0	62	
Female	22	25	13	02	0	58	
Total	61	25	28	06	0	120	

Sources: Primary Data

(SA- Strongly Agree, S- Agree, S NOR DA- Agree nor Disagree, DA- Disagree,

SDA- Strongly Disagree)

Table 5

Nature of Variables	Hypothesis	Calculated Value	Table Value	Degrees of Freedom	Acceptance of Null Hypothesis
Gender factors and challenges faced by students during online studies.	Н0 1	16.4	9.488	4	Rejected

Sources: Primary Data

Table 5 makes it clear that there are one hypothesis set, namely, H01 are accepted, because the calculated values of chi square are less than the table value at 5% level of significance. Hence, there is a significant relationship between gender and

Unsuitable home environment for attending online classes.

H₀: There is no relationship between Gender factors and live lecture delivery by your faculty.

Table 6

Condon	Live lecture delivery by your faculty					
Gender	SA A		A NOR DA	DA	SDA	Total
Male	39	21	15	04	0	62
Female	22	25	13	02	0	58
Total	52	45	20	03	0	120

Sources: Primary Data

(SA- Strongly Agree, S- Agree, S NOR DA- Agree nor Disagree,

DA- Disagree, SDA- Strongly Disagree)

Table 7

Nature of Variables	Hypothesis	Calculated Value	Table Value	Degrees of Freedom	Acceptance of Null Hypothesis
Gender factors and live lecture delivery by your faculty	H ₀ 1	8.58	9.488	4	Accepted

Sources: Primary Data

Table 7 makes it clear that there are one hypothesis set, namely, H01 are accepted, because the calculated values of chi square are less than the table value at 5% level of significance. Hence, there is a significant relationship between gender and Live

lecture delivery by your faculty.

H₀: There is no relationship between Age Factor and Unsuitable home environment for attending online classes

Table 8

Ago Eoston	Age Factor Unsuitable home environment for attending online classes						
Age ractor	SA	A	A NOR DA	DA	SDA	Total	
Below 20	34	11	14	03	0	62	
21-30	20	09	12	02	0	43	
Above 30	07	05	02	01	0	15	
Total	61	25	28	06	0	120	

Sources: Primary Data

(SA- Strongly Agree, S- Agree, S NOR DA- Agree nor Disagree,

DA- Disagree, SDA- Strongly Disagree)



				•
1	3	h	e	4

Nature of Variables	Hypothesis	Calculated Value	Table Value	Degrees of Freedom	Acceptance of Null Hypothesis
Age Factor and Unsuitable home environment for attending online classes	H ₀ 1	3.133	15.507	8	Accepted

Sources: Primary Data

Table 9 makes it clear that there are one hypothesis set, namely, H01 are accepted, because the calculated values of chi square are less than the table value at 5% level of significance. Hence, there is a significant relationship between age factors and Unsuitable home environment for attending online classes.

Conclusion

EdTech makes powerful teachers to make them accessible to an enormous populace of understudies. The requirement for an actual space where understudies and educators can gather for homeroom meetings is not generally required. On-request video web based makes it believable to courses at whenever, anyplace, and through any medium. These large numbers of strong factors alongside numerous others fuel the development of the EdTech transformation in India. The research discloses that the probability of replacing traditional teaching with modern online e-learning tools has been improved and this provides a huge promote for the EdTech startups in India. Thus, it will help to increase a deliberate plan for the successful performance of e-learning and view technology as an optimistic step towards development and change. This study highlights the challenges and students favored technique of online learning.

References

"Educational Technology." *Wikipedia*, en.wikipedia. org/wiki/Educational_technology

Kamath, Akshatha. "Industry Study: EdTech In India and How OnlineTyari Uses Data to Succeed." Moengage, 2021, www.moengage.com/blog/industry-study-edtech-in-india-and-how-onlinetyari-uses-data-to-succeed

"Future of Edtech India: Factors Driving the Growth of Edtech Industry in India." *The Startup*

Lab, www.thestartuplab.in/future-of-edtech-india-factors-driving-the-growth-of-edtech-industry-in-india

Rizvi, Yasmeen Shamsi, and Asma Nabi. "Transformation of Learning from Real to Virtual: An Exploratory Descriptive Analysis of Issues and Challenges." *Journal of Research in Innovative Teaching & Learning*, vol. 14, no. 1, 2021, pp. 5-17.

Khamis, Tashmin, et al. "The COVID-19 Pandemic: A Catalyst for Creativity and Collaboration for Online Learning and Work-based Higher Education Systems and Processes." *Journal* of Work-Applied Management, vol. 13, no. 2, 2021, pp. 184-96.

Ngoasong, Michael Zisuh. "Curriculum Adaptation for Blended Learning in Resource-Scarce Contexts." *Journal of Management Education*, 2021.

Pusca, Daniela, and Derek O. Northwood. "Teaching and Learning Engineering Design: Creative Methods for Remote Education." World Transactions on Engineering and Technology Education, vol. 19, no. 3, 2021, pp. 306-12.

Augustine, Robi, and Sheedhal K Reji. "Online Teaching and Learning during Covid-19: A Study among Selected University Students." International Journal of Research Culture Society, 2021.

Sullivan, Adam P., et al. "Edtech Effectiveness: Using Screencasts to Increase Learning Outcomes in Information Systems Curricula." *Issues in Information Systems*, vol. 19, no. 1, 2018, pp. 210-17.

Lone, Zahoor Ahmad. "Technology in Education in Rural India." *International Journal of Engineering Science and Computing*, vol. 7, no. 7, 2017.

Vegas, Emiliana, et al. "How has Education

- Technology Impacted Student Learning in India during COVID-19?" *Brookings*, 2021.
- Mathivanan, Sandeep Kumar, et al. "Adoption of E-Learning during Lockdown in India." International Journal of System Assurance Engineering and Management, 2021.
- Bhaisare, Ashish S., and Anita V. Nikalje. "Improved Techniques for the Assessment of Online Learners." *Innovative Teaching and Learning Process during COVID-19*, edited by Bindu Swetha Pasuluri, et al., IOR International Press, 2020.
- Kumaran, S. Ganesh, et al. "Teaching and Learning Process: A Transformation during Covid-19." Innovative Teaching and Learning Process during COVID-19, edited by Bindu Swetha Pasuluri, et al., IOR International Press, 2020.
- Shaik, Bazani, et al. "Innovative and Creative Learning in Covid-19." *Innovative Teaching and Learning Process during COVID-19*, edited by Bindu Swetha Pasuluri, et al., IOR International Press, 2020.
- Rizvi, Yasmeen Shamsi, and Asma Nabi. "Transformation of Learning from Real to

- Virtual: An Exploratory-Descriptive Analysis of Issues and Challenges." *Journal of Research in Innovative Teaching & Learning*, vol. 14, no. 1, 2021, pp. 5-17.
- Meji, M. Abisha, et al. "The Challenges in E-learning among Tamilnadu Students in the Covid-19 Induced Crisis." *i-Manager's Journal on Humanities & Social Sciences*, vol. 1, no. 4, 2020, pp. 33-40.
- Owusu-Fordjour, C., et al. "The Impact of COVID-19 on Learning The Perspective of the Ghanaian Student." *European Journal of Education Studies*, vol. 7, no. 3, 2020, pp. 88-101.
- Palvia, Shailendra, et al. "Online Education: Worldwide Status, Challenges, Trends, and Implications." *Journal of Global Information Technology Management*, vol. 21, no. 4, 2018, pp. 233-41.
- Pani, Ashis K., et al. "E-learning: Challenges and Solutions A Case Study." *International Journal of Learning, Teaching and Educational Research*, vol. 13, no. 4, 2015, pp. 33-40.

Author Details

- **U. Arumugam,** Assistant Professor Department of Corporate Secretaryship, Department of Commerce, Alagappa University, Karaikudi, Tamil Nadu, India, **Email ID**: arumugam.uc@gmail.com
- **M. Manida,** Full- Time Ph. D Research Scholar, Department of Corporate Secretaryship, Department of Commerce, Alagappa University, Karaikudi, Tamil Nadu, India, **Email ID**: manidamcom@gmail.com