

A STUDY ON IMPACT OF E-LEARNING DURING COVID-19 PANDEMIC WITH SPECIFIC REFERENCE TO COLLEGE STUDENTS

Mr.S.Suryakumar, Assistant Professor
Master of Business Administration
Paavai Engineering College
Namakkal, Tamilnadu

S.Aadil Ali PG Student,
Master of Business Administration
Paavai Engineering College
Namakkal, Tamilnadu

ABSTRACT:

E-learning is defined as the learning system that we can obtain through the internet using an electronic device. A learning activity has interaction between a learner and an environment, leading to a planned outcome. It is the planned outcome which makes learning a purposeful activity. Learning is defined as a change in behaviour Learning is measurable and relatively permanent change in behaviour through experience, instructions or study. The epidemic of Covid-19 has of its footprints on education. The outbreak this dangerous virus across the globe has forced educational institutions to shut down to control the spread of this virus. This happening made the teaching professionals think of alternative methods of teaching during this lockdown in which teaching professionals and students are connected.

The aim of the study was to assess the impact of E-Learning during Covid-19 Pandemic.

1.INTRODUCTION:

E-learning is defined as the learning system that we can obtain through the internet using an electronic device. We also call it online learning or online education. The “E” in e-learning stands for ‘electronic’. Hence the original term electronic learning. A learning activity has interaction between a learner and an environment, leading to a planned outcome. It is the planned outcome which makes learning a purposeful activity. Learning is defined as a change in behaviour Learning is measurable and relatively permanent change in behaviour through experience, instructions or study. Whereas individual learning is selective, group learning is essentially political. There are many types of learning methods and theories but e-learning is developing very fast. E-learning is well accepted due to many reasons and same areas are explored in this research study. Learning is a product of interaction. The rapid technological and

social change put forwards need for lifelong learning. Conventional classroom learning is not able to satisfy much need. E-learning is an increasingly preferable alternative to conventional classroom learning. Web based learning has become an important part of the routine landscape of education. It has been recognized that web based learning can enable more learners to have access to the learning material and provide students with unprecedented flexibility and convenience. Wide spread of internet has encouraged e-learning among students. In an e-learning environment, learners learn own convenience of schedule and willingness. Ease of access to the learning material, time independence, learning and mobility are critical factors which derives the utilization of elearning system. In general, e-learning can be considered as the process of learning to develop learning formed by communication with delivered digitally with electronic service and support. Elearning is a modern concept of learning mostly used by students for academic and non-academic purpose. The conventional way of learning has changed. Through the World Wide Web education has become ubiquitous service delivered anytime anywhere. E-learning is the process involves the use of mobile phones, computer and internet. The rapid development and wide spread usage of internet result effective education environment. Adequate contribution of current technology growth for education is the widening of e-learning

environment. With the use of advancement in technology and communication Any freak accident that happens in the world will always leave its impact on education. And so the epidemic of Covid-19 has its footprints on education. The outbreak of this dangerous virus across the 2 globe has forced educational institutions to shut down to control the spread of this virus. This happening made the teaching professionals think of alternative methods of teaching during this lockdown. And thus it paves the way towards web-based learning or e-learning or online learning. In today's scenario learning has stepped into the digital world. In which teaching professionals and students are virtually connected. E-learning is quite simple to understand and implement. The use of a desktop, laptop, or smartphones and the internet forms a major component of this learning methodology. E-learning provides rapid growth and proved to be the best in all sectors, especially in education during this lockdown. 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. This study emphasizes on how online learning is beneficial during times of crises and the effectiveness Various online learning platform are also discussed.

OBJECTIVES:

- To analyse the impact E-Learning during COVID-19 Pandemic.
- To analyse the mind set of students respondents towards online study during COVID-19.
- To study the factors that influence the attitude of students during lock down period.
- To identify the challenges faced by the students in E-learning.

2.METHODOLOGY:

For study, appropriate sample size will be taken from the students towards e-learning at the covid 19 pandemic period. Both primary and secondary data will be used for the study. The primary data collected through online survey and secondary data collected through the internet, books, various book, journals, and magazine. The study will be conducted is descriptive in nature.

2.1 RESEARCH DESIGN:

To make the research systemized the researcher must adopt certain method. The method adopted by the researcher for completing the project is called research methodology. Research is a process in which the researcher wishes to find out the result for a given problem and thus the solution helps in future course action. The research has been

defined as “A careful investigation or enquire especially through search for new facts in any branch of knowledge”. To give more additional to the old research new ones are conducted.

2.2 SAMPLE SIZE:

The sample size in the study is 80.

Relevant information was gathered from magazines, newspapers and project reports that formed the secondary data.

2.3 TOOLS USED FOR ANALYSIS:

- Simple Percentage Analysis
- Chi-square test

2.4 SIMPLE PERCENTAGE ANALYSIS:

This method is used to compare two or more series of data, to describe the relationship or the distribution of two or more series of data. Percentage analysis test is done to find out the percentage of the response of the response of the respondent. In this tool various percentage are identified in the analysis and they are presented by the way of Bar Diagrams to have better understanding of the analysis.

No. of Respondents

$$\text{Percentage} = \frac{\text{No. of Respondents}}{\text{Total Respondents}} \times 100$$

Total Respondents

CHI SQUARE TEST

It is one of the simplest and widely used non-parametric test in statistical work. The quantity chi-square describes the magnitude of the discrepancy between theory and observation. Which is defined as?

$$\text{Chi - Square} = \sum \frac{(O_i - E_i)^2}{E_i}$$

O_i = Observed frequency, E_i = Expected frequency

3. DATA ANALYSIS AND INTERPRETATION

3.1 GENDER OF THE RESPONDENTS

TABLE NO 3.1

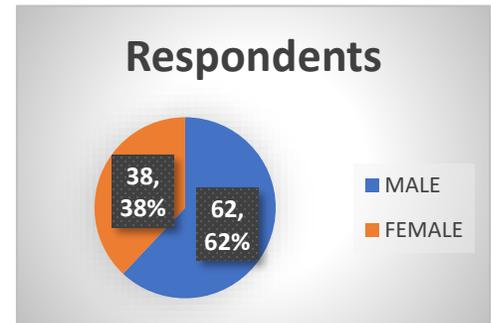
GENDER	NO OF RESPONDENTS	PERCENTAGE
Male	54	62%
Female	32	38%
Total	86	100%

INTERPRETATION

The above table shows that 62% of the respondents are male and remaining 38% of the respondents are female.

Majority 62% of the respondents are male.

CHART 3.1



3.2 DEGREE OF THE RESPONDENTS

TABLE 3.2

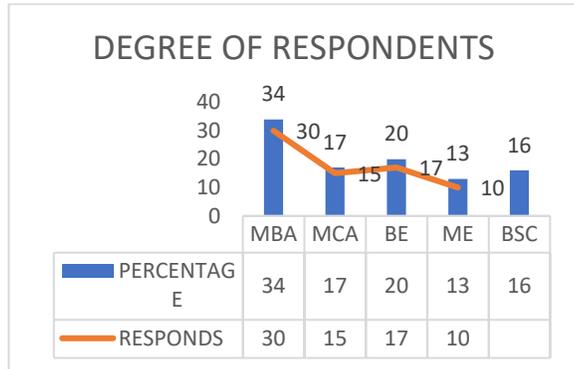
Program	Number of students	Percentage
MBA	30	34
MCA	15	17
BE	17	20
ME	10	13
BSC	14	16
Total	86	100

INTERPRETATION

This table highlights that, 34% of the respondents are from MBA, 17% of the respondents are from MCA, 20% of the respondents are from BE, 13% of the respondents are from ME, 16% of the respondents are from Bachelor of Science.

Majority 34% of the respondents are from Master of Business Administration.

CHART 3.2

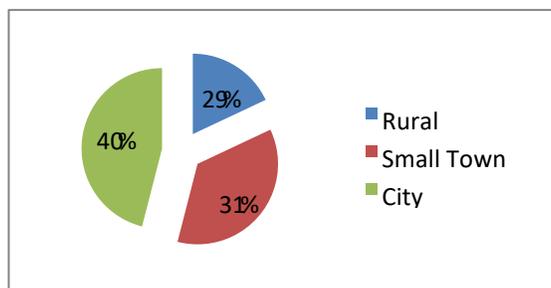


3.3 REGION OF THE RESPONDETNNS

TABLE 3.3

Region	Number of respondent	Percentage
City	34	40
Small town	28	31
Rural	24	29
Total	86	100

CHART 3.3



3.4 TEACHER USED E-LEARNING PLATFORM FOR TEACHING BEFORE LOCKDOWN TO SUPPLEMENT LEARNING

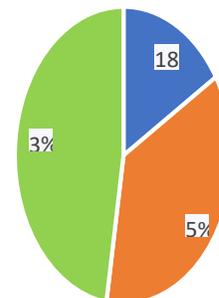
TABLE 3.4

Response	Number of respondent	Percentage
Almost all of them	26	30
Few of them	24	18
None of them	36	52
Total	86	100

INTERPRETATION

Majority 52% of the respondents agree that none of them are having e learning platform for learning before lockdown.

CHART 3.4



3.5 DEVICE USED FOR E-LEARNING

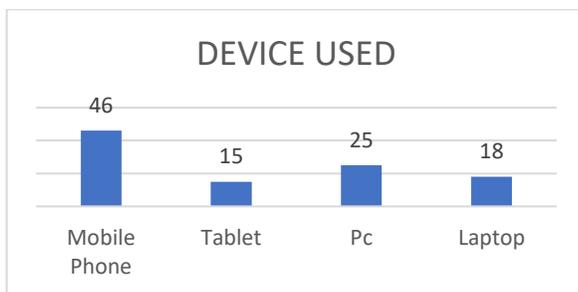
TABLE 3.5

Device	Number of Respondent	Percentage
Mobile phone	40	46
Tablets	10	15
Pc	20	25
Laptop	16	18
Total	86	100

INTERPRETATION

Majority 46% of the respondents of this study prefer mobile phone for e-learning and secondly prefer Pc for online learning during the pandemic period.

CHART 3.5



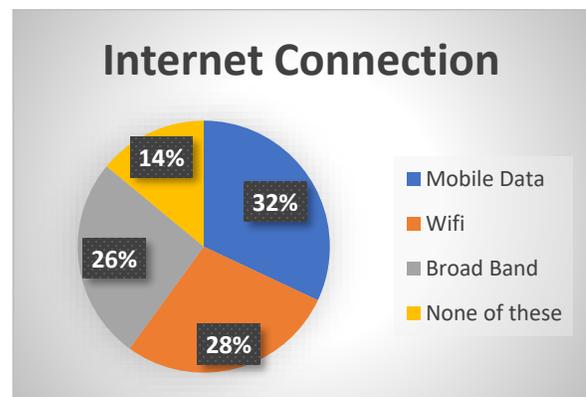
3.6 TYPE OF INTERNET CONNECTION

TYPE OF INTERNET	RESPONDENTS	PERCENTAGE
Mobile Data	26	32%
Wifi	22	28%
Broad Band	21	26%
None of these	15	14%
Total	86	100%

INTERPRETATION

The above table shows that majority 32% of students used Mobile Data for their e-learning and followed by 28% used WiFi.

TABLE 3.6



3.7 MOST PREFERRED APPLICATION USED FOR E-LEARNING

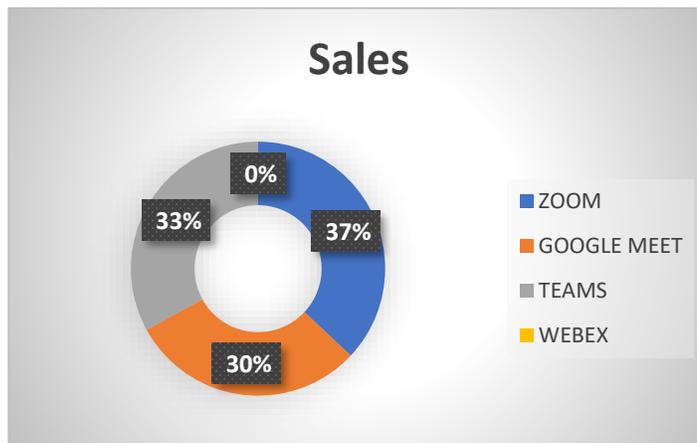
TABLE 3.7

MOST PREFERRED APPLICATION USED FOR E-LEARNING	RESPONDENTS	PERCENTAGE (%)
Zoom	32	37%
Google Meet	26	30%
Microsoft Teams	28	33%
WebEx	0	0
TOTAL	86	100%

INTERPRETATION

The above table shows that 37% of students used Zoom application for e-learning and 30% used Google meet.

CHART 3.7



3.8 PROBLEMS FACED IN ONLINE SESSIONS

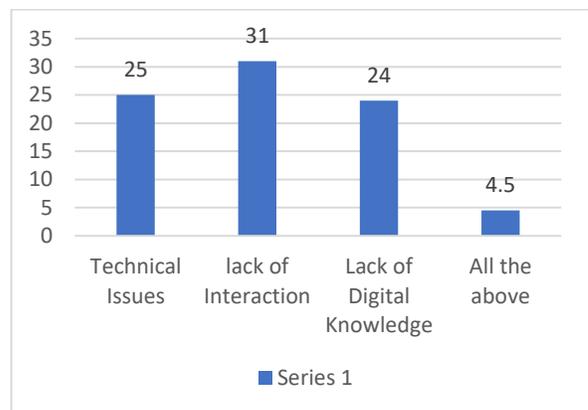
TABLE 3.8

ISSUES	RESPONDENTS	%
Technical Issues	22	25%
Lack of interaction	27	31%
Lack of Digital Knowledge	21	24%
All the above	18	21%
Total	86	100%

INTERPRETATION

The above table shows that the problems faced by students in online session are due to lack of interaction.

CHART 3.8



3.9 E-LEARNING AFFECTING STUDENTS WORKLOAD

TABLE 3.9

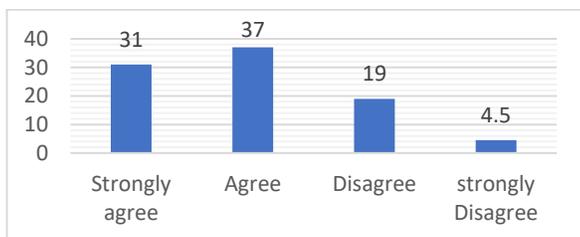
AFFECTS WORKLOAD	RESPONDENTS	PERCENTAGE
Strongly Agree	27	31%
Agree	32	37%
Disagree	16	19%
Strongly Disagree	11	13 %
Total	86	100%

INTERPRETATION

Thus, the table shows that does the e-learning increases students work load of the students.

Majority 37% of the respondents agree that the e-learning increases the workload.

CHART 3.9



3.10 LOSS OF CONTINUITY DURING ONLINE CLASS

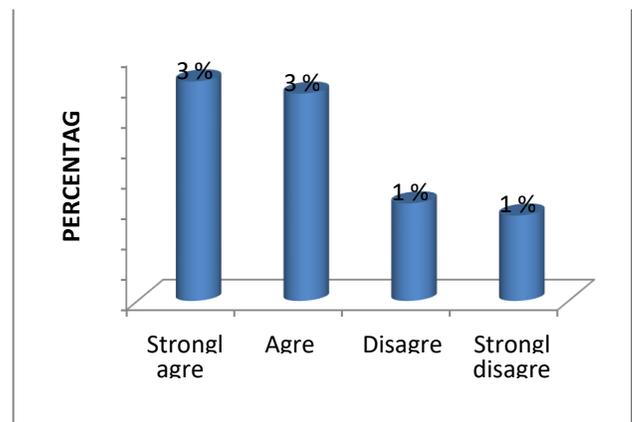
TABLE 3.10

LOSS OF CONTINUIT Y	RESPONDEN TS	PERCENTA GE
Strongly agree	29	34%
Agree	27	31%
Disagree	16	18%
Strongly disagree	14	16%
Total	86	100%

INTERPRETATION

Thus, the majority 34% of respondents are strongly agree that they loss continuity during online classes.

CHART 3.10



3.11 RELATIONSHIP BETWEEN GENDER AND INCREASING IN WORKLOAD OF STUDENTS

GENDE R/WOR KLOAD OF STUDENTS	STR ON GLY AGR EE	AG REE	DIS AGR EE	STRO NGLY DISAG REE	TO TAL
Male	13	14	17	10	54
Femal e	12	7	8	5	32
TOTA L	25	21	25	15	86

NULL HYPOTHESIS

H₀: There is no significant relationship between gender and increasing in workload of students.

ALTERNATIVE HYPOTHESIS

H₁: There is a significant relationship between gender and increasing in workload of students.

Observed Frequency	Expected Frequency	(O-E) ²	$\frac{(O-E)^2}{E}$
13	15.6	5.2	0.333
14	13.1	1.8	0.137
17	15.6	2.8	0.179
10	9.41	1.18	0.017
12	9.3	5.4	0.125
7	7.8	1.6	0.205

8	9.3	2.6	0.279
5	5.5	1	0.181
			1.456

Degree of freedom : $(r - 1)(c - 1)$
 $: (3 - 2)(2 - 1) = 1$
 Level of significance : 5%
 Table value : 85.61
 Calculated value : 1.456

RESULT

Since the calculated value is less than the table value. So, we accept the null hypothesis. There is no relationship between gender and increasing in workload of students.

4.RESULTS AND DISCUSSION

4.1 FINDINGS

- Majority 62% of the respondents are male.
- Majority 34% of the respondents are from Master of Business Administration.
- Majority 52% of the respondents agree that none of them are having e learning platform for learning before lockdown.
- Majority 46% of the respondents of this study prefer mobile phone for e-learning and secondly prefer Pc for online learning during the pandemic period.

- Majority 32% of students used Mobile Data for their e-learning and followed by 28% used WiFi.
- Majority 37% of students used Zoom application for e-learning and 30% used Google meet.
- The problems faced by students in online session are due to lack of interaction.
- Majority 37% of the respondents agree that the e-learning increases the workload.
- Thus, the majority 34% of respondents are strongly agree that they loss continuity during online classes.

4.2 SUGGESTIONS

This study reveals that the Students and teachers should be able to establish an open line of communication. Also, teachers should specify which means of communication they prefer and during which hours. This will ensure that expectations are met and that the student receives the help or support that they need. Also, students should have contact information for the systems IT support staff, and have access to a member of staff on a regular basis if needed. Examples of how students can communicate with their instructors are discussion forums, social media, chats, email, video conferencing and other VoIP technologies. Educators should enhance their knowledge and

skills that is required for the maximum usage of technological devices, E-learning tools, educational apps and other online platforms like TV School, Online portals, Google Meet, Slack, Zoom, Edu-Page etc. Students should be encouraged to use different educational apps and should be provided with easy, effective and interesting study materials by the educators to drag student's attention towards Elearning. Student's mental health should be taken into consideration and various suitable measures should be taken by the educators to relieve their mental stress and anxieties during the COVID-19 crisis, to ensure that the students could regularly, effectively and actively participate in their online learning sessions.

4.3 CONCLUSION

In this survey study, evaluated perception of students e-learning during the COVID-19 pandemic. Ease of access to educational materials and the ability to choose the time and place to study were shown as the strongest advantages of online learning among respondents in our survey. The study has been conducted among a sample of 100 students. From the feedback it is understood that some of the students have a negative attitude towards e-learning at the time of covid 19 pandemic. Most of the students without any gender wise classification have positive and negative

attitude towards elearning because from the above statements it is clear that e-learning helps them to manage their time and cost in education and improve their self and it build a confidents among the students. Beside that there is some challenges faced by the students at the time of they entering into e-learning .The main problem for respondents in our survey, especially internet connection. E-learning requires a reliable internet connection and the necessary hardware and software. Poor interaction between learners and facilitators, and they feel mental stress and health issues while they attending online learning.lack of clarity of the purpose and goals of the learning can impede the learning process and respondent are tensed about education through online method. It was perceived that some of the students had not essential resources to join online; here it appeared like pushing the digital divide further. So, the difficulties with online teaching were both technical and ideological. Most of the challenges were related to the students and their responses to the needs of online teaching, which include uninterrupted electricity connection, intermittent signal issues. Among others, level of understanding, lack of scope for meaningful interaction.

5 REFERENCES

- Hamdan Mubarak Al-khahab (2007) conducted a study on “Attitude towards ELearning: An empirical study in Kuwait”. European Journal of Open, distance and ELearning.
- Azliza Yacob, Aini Zuriyati Abdul kadir (2011) conducted a study on “Students Awareness Towards E-learning in Education”. Online –ISSN 2411-2933, Print – 2411-3123
- Dr. Muhammad Umar and Farooq and Dr. Choudary Zahid Javid (2012) conducted a study on “Attitude of Students towards E-learning: A study of English language learners at Tariff
 - University, English Language Centre”.UML Journal of critical inquiries, National University of Modern Languages, Islamabad Pakistan vol 10 (20).
- Nasser M.Sabah (2013) conducted a study on “Students Attitude and Motivation towards Elearning”. First International Conference on applied Science, volume: Gaza –Palestine.
- Rasha A. Eldeeb (2014) conducted a study on Students Perception towards ELearning at

Dubai Medical College and Dubai Pharmacy College”. IOSR Journal of Research &Methods in Education (IOST-TRME).

- Amal Rhema and Iwona Miliazewska (2014) conducted a study on “Analysis of Students Attitude towards E-learning: the case of engineering students in Libiya”. *Issues in Information science and Information technology* (volume 11), 2014.
- Anca Popovici and Cosmina Mirnov (2014) conducted a study on “Students Perception on using E-learning technologies”. *The International Conference Education world 2014* (Education facing contemporary world issues”), 7th and 9th November 2014.
- Dhiman Kar, Birbal Saha and Bhin Chandra Mondal (2014) conducted a study on “Attitude of University Students towards E-learning in West Bengal”. *Science and Education Publishers*
- Abderlrahim M. Zabadi and Amar Hussein Al-Alawi (2016) conducted a study on
 - “University Students Attitude towards E-learning: University of Business and Technologies-
 - Saudi Arabia”. *SAGE Journals*
- Raymond Selorm Mamattah (2016) conducted a study on “Students Perception towards Elearning”. *Spring 2016/ISRN-NO.16/005-SE*.
- Olumayowa Oluwafemi Ogumowo (2016) conducted a study on “Analysis of Students
- Mithu Anjali Gayan and Saumen Das (2017) conducted a study on Awareness and Perception towards E-learning among faculty members of Tripura University: A case study”. *11th International CALIBER 2017, Volume -4, Issue- 3 ver.IV, PP-3336*.
- Dr. Ishmirekha Handique Konwar (2017) conducted study on “A study on Attitude of college Students towards E-learning with special reference to North Lakhimpur, Assam”. *International Journal of Information science and Education Research India Publications*.
- Paul Nyagorme and Albert Arthur quano (2017) conducted a study on “Awareness and use of E-learning Platform: A case of a developing country”. *Horizon Research Publishing Corporation*.
- Bhavik Parmar and Devang Modh I (2018) conducted a study on “Customer Preference and
 - Perception towards Online Education in Ahmedabad city”. A Presentation of Comprehensive project report II.
- (Edu EDUPAGE. (2020). *EduPage, ‘EduPage features’*. Retrieved on 16 June 2020 from <https://www.edupage.org/>

- Anderson, J. (2005). IT, e-learning and teacher development. *International Education Journal* 5(5), 1-14.
- Baiyere, A., & Li, H. (2016) ‘Application of a virtual collaborative environment in a teaching case’. In *AMCIS 2016: Surfing the IT Innovation Wave - 22nd American Conference on Information Systems*.
- Bajaj, R.V., & Sharma, V. (2018). Smart Education with artificial intelligence based determination of learning styles. *Procedia Computer Science*, 132, 834-842.