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Evaluation of Online Learning Students Perception Pre and Post Covid-19 with Special Reference to Tirunelveli District

***Divina Rosiline D'silva, **Dr. P. Balasubramanian**

Author's Affiliation:
*Research Scholar, Department of Library and Information Science, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu 627012, India.
E-mail: divinarosa31@gmail.com
**University Librarian & Head, Department of Library and Information Science, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu 627012, India.
E-mail: bala_2010@yahoo.com

Corresponding Author: Dr. P. Balasubramanian, University Librarian & Head, Department of Library and Information Science, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu 627012, India.
E-mail: bala_2010@yahoo.com

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ABSTRACT

The COVID-19 pandemic has struck the education system around the world. The pandemic started an immediate and complete lockdown of all the educational institutions, to keep social distancing. According to healthcare professionals, lockdown and social distancing could help to flatten the infection curve and reduce total fatalities from the COVID-19 pandemic. It has affected more than 90% of the world's learners, as the regular learning approaches are not appropriate in this out of the ordinary times and online learning seems to have become critical salvation for learning, the educational institutions attempt to minimize the community spread of the disease. All the people participating in the education system accepted that teaching and learning methods need to be altered in the period of COVID-19 as the situation led to the forced adaptation of e-learning methods. This paper investigates and evaluates the Online Learning Students Perception Pre and Post Covid-19 with Special Reference to Tirunelveli District.

KEYWORDS: *Online Learning, Pre and Post Covid-19, Students Perception, Tirunelveli District.*

INTRODUCTION

Education is the most important weapon to bring changes in society by removing orthodoxy and superstitions and make people wise and rational. It is the prime equipment to make the people of a state or country skilled and civilized and leads the development of a nation through the individual development of its citizen. Without an educated citizen, no country can make progress in Science and Technology which are the prime requisite for the development of a nation. The whole process of education is focused on the academic performance or

achievement of the students, the final product of education (teaching-learning process). The COVID–19 viruses have disrupted teaching in a variety of institutions and their students. In many countries, including India, typical face-to-face classes had to be suspended to ensure the safety of students, lecturers, and parents. To minimize the impact of lockdown, educational institutions had to find another approach to teach their students. Fortunately, current technology-enabled electronic learning (e-learning) to be the core method of teaching the curriculum during the COVID–19 pandemics.

E-learning is defined as using information technology to improve the quality of education. Currently, online teaching is commonly used in the training of college students, not as a sole method, but combined with the traditional teacher-led approach. The success of e-learning depends on many factors, including accessibility, usage of appropriate methods, course content, and assessment criteria. E-learning, like any method of teaching, has its advantages and disadvantages for both students and teachers. The present study is to analyse the Online Learning Students Perception of Pre and Post Covid-19 with Special Reference to Tirunelveli District.

REVIEW OF LITERATURE

Jafari et al. (2019) studied on relationship between study habits and academic achievement in students of medical sciences in Kermanshah-Iran and reported that the mean of students 'grade point average was 15.73±1.5 out of 20 and the mean of total status of study habits was 45.70±11.36 out of 90. The status of study habits in 81.3% of the students was at a moderate level. There was a direct and significant relationship between study habits and academic achievement. The status of study habits was at a moderate level for most students. Therefore, it is recommended to consider and assess students 'study habits at the time of entry into university, in addition, specific training should be offered to students to help them learn or modify study habits to increase their academic achievements.

Pravat Kumar Jena (2020) studied Online Learning during Lockdown Period for Covid-19 In India. The author has undertaken some online counselling classes and conducted online induction meetings with fresh January 2020 learners of different Learner Support Centres (LSCs) under Indira Gandhi National Open University (IGNOU) Regional Centre, Bhubaneswar during the lockdown period of India. The perceptions/views of learners and educators of LSCs under IGNOU Regional centre, Bhubaneswar are collected while conducting online counselling classes and online induction meetings using videoconferencing software ZOOM/Google Meet. The collected data are analyzed to study the merits and demerits of the Online Learning system during the lockdown and proposed better methods to make it effective for the learners.

Balasubramanian. P & Shahnaz P (2021) University teachers are now delivering course content through various platforms. Professors are using online educational platforms, videoconferencing software, and social media to teach their courses. Online educational platforms, like Google Classroom and Blackboard, allow professors to share notes and multimedia resources related to their courses with students. The online educational platforms also allow students to turn in their assignments and professors to keep track of the progress of the students. Videoconferencing tools, like Google Meet, Zoom, and Microsoft Teams, help in organizing online lectures and discussion sessions. Such tools typically support slideshows and a chatbox. They are also disseminating course material through their websites and their learning management system. Additionally, professors are taking the help of virtual laboratories to teach science courses.

STATEMENT OF PROBLEM

In early 2020, COVID-19 has resulted in schools and universities being shut all across the world, making around 1.2 billion learners out of the classroom. COVID-19 has dramatically reshaped the way global education is delivered. Millions of learners were affected by educational institution closures due to the pandemic, which

resulted in the largest online movement in the history of education. With this sudden shift away from classrooms in many parts of the globe, universities had to rapidly shift to virtual and digital strategies. Many believe that the adoption of online distance learning will persist after the pandemic. Hence the present study is to analyse the Online Learning Students Perception of Pre and Post Covid-19 with Special Reference to Tirunelveli District.

OBJECTIVES OF THE STUDY

- To evaluate the students' opinion towards the online classes during the pandemic situation of covid'19.
- To analyse the students' perception towards their learning in pre and post Covid-19 in the study area.

HYPOTHESES

H_O: There is no significant difference in the perception of students about their learning in pre and post-Covid-19.
H_1 There is a significant difference in the perception of students about their learning in pre and post-Covid-19.

SCOPE OF THE STUDY

Due to the COVID-19 pandemic effect, many sectors, especially education, have suffered a significant setback. The virus was reported to have originated from Wuhan, Hubei Province, China and it has infected millions of people worldwide. The researcher attempted to know the college students' perception towards their learning during the pre and post-Covid-19.

METHODOLOGY

The study area is Tirunelveli District, a questionnaire survey was conducted to collect the data to realize the perception of students about online learning during pre and post covid-19. A well-made questionnaire in the google form was distributed among the college students in the Tirunelveli district. The google form link was sent to nearly 700 students of various arts, science and engineering colleges. Out of the 700 students, the researcher received only 604 fully completed forms from the students.

LIMITATIONS

- The researcher used a simple random sampling technique for collecting the data from the respondents.
- The study mainly considered the college students of the Tirunelveli District.

DATA ANALYSIS AND INTERPRETATION

Table 1: Gender-wise Distribution of the Respondents

Sl. No.	Particulars	Number of Respondents	Percentage
	Gender of the Respondents		
1	Male	292	48.34
2	Female	312	51.66
Total		**604**	**100**

(Source: Primary data)

Table 1 discloses the gender-wise distribution of the respondents selected for the study. It is found that a maximum of 312 respondents (51.66 per cent) female and 292 respondents (48.34 per cent) male.

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Table 2: The course of the Respondents

Sl. No.	Particulars The course of the Respondents	Number of Respondents	Percentage
1	UG	360	59.60
2	PG	194	32.11
3.	M.Phil.	50	8.28
Total		**604**	**100**

(Source: Primary data)

Table 2 reveals the Course studying by the selected respondents in the study area. It is understood that 360 respondents (59.60 per cent) undergraduates, 194 respondents (32.11 per cent) postgraduates and only 8.27 per cent M.Phil. scholars.

Table 3: Stream of the Respondents

Sl.No.	Particulars Stream of the Respondents	Number of Respondents	Percentage
1	Arts & Humanities	198	32.78
2	Science	204	33.78
3.	Engineering	202	33.44
Total		**604**	**100**

(Source: Primary data)

Table 3 illustrates the stream of the selected respondents. It is known that a maximum of 204 respondents (33.78 per cent) studying science subjects, 202 respondents (33.44 per cent) engineering subjects and 32.78 per cent of them studying arts and humanities.

Table 4: Residential Area of the Respondents

Sl. No.	Particulars Residential Area of the Respondents	Number of Respondents	Percentage
1	Rural	236	39.07
2	Urban	216	35.76
3.	Semi-Urban	152	25.17
Total		**604**	**100**

(Source: Primary data)

Table 4 reveals the residential area of the respondents. It is understood that a maximum of 236 respondents come from the rural area to their colleges, 216 respondents (35.76 per cent) from urban and 152 respondents (25.17 per cent) from the semi-urban area to their colleges.

Table 5: Online class / Seminar experience before COVID-19

Sl. No.	Particulars Online class / Seminar experience	Yes	No	Total
1	UG	88	272	360
2	PG	93	101	194
3.	M.Phil.	22	28	50
Total		**203**	**401**	**604**

(Source: Primary data)

Table 5 shows the respondents experience in the online classes and seminar etc. It is found that 93 postgraduate students, 88 undergraduate students and 22 M.Phil. scholars have some online classes/ seminar experiences and the remaining 401 respondents not have any online class or seminar experience.

Table 6: Online class / Seminar experience before COVID-19 (Steam wise)

Sl. No.	Particulars Online class / Seminar experience	Yes	No	Total
1	Arts & Humanities	27	171	198
2	Science	38	166	204
3.	Engineering	138	64	202
Total		**203**	**401**	**604**

(Source: Primary data)

Table 6 displays the steam wise respondents experience in the online classes and seminar etc. It is understood that 138 engineering students, 38 science students and 27 arts and humanities have some online classes/ seminar experiences and the remaining 401 respondents not have any online class or seminar experience

Table 7: Devices used for online Learning

Sl. No.	Particulars Devices used for online Learning	Number of Respondents	Percentage
1	Desktop	84	13.91
2	Laptop	112	18.54
3.	Mobile Phone	254	42.05
4.	Tablet	154	25.50
Total		**604**	**100**

(Source: Primary data)

Table 7 discloses devices used by the respondents to attend the online classes. It is found that a maximum of 254 respondents (42.05 per cent) use the mobile phone to attend the online classes, 154 respondents (25.5 per cent) tablet, 112 respondents (18.54 per cent) laptop and only 84 respondents (13.91 per cent) use the desktop to attend the online classes.

Table 8: Communication App used by the Respondents

Sl. No.	Particulars Communication App	Number of Respondents	Percentage
1	Email	92	15.23
2	WhatsApp	348	57.62
3.	Telegram	164	27.15
Total		**604**	**100**

(Source: Primary data)

Table 8 divulges the communication system used for the online classes regarding the intimation of class timetable, assignments etc. It is noted that a majority of the respondents (57.62 per cent) used WhatsApp, 27.15 per cent of the respondents' use Telegram and 15.23 per cent of the respondents use Gmail for their online classes.

Table 9: Channels of Online Teaching

Sl. No.	Particulars Channels of Online Teaching	Number of Respondents	Percentage
1	Google meet	286	47.35
2	Own LMS	61	10.10
3.	Zoom	179	29.64
4.	Webex	58	9.60
5.	Others	20	3.31
Total		**604**	**100**

(Source: Primary data)

Table 9 indicates the channel through the online classes are conducted for the respondents. It is understood that 286 respondents (47.35 per cent) seen their classes in the Google meet, 179 respondents (29.64 per cent) zoom app, 61 respondents (10.10 per cent) Own LMS, 58 respondents (9.60 per cent) Webex and only 3.31 per cent of the respondents use some other apps for their online classes.

Table 10: Materials used by the Respondents

Sl. No.	Particulars Materials used by the Respondents	Number of Respondents	Percentage
1	Classroom Notes	545	90.23
2	Teacher's materials	552	91.39
3.	E-Books	441	73.01
4.	E-Journals	250	41.39
5.	YouTube Link	285	47.18
6.	E-Content	351	58.11
7.	MOOC Courses	152	25.16
8.	Bazar notes	276	42.88

(Source: Primary data)

Table 10 reveals the materials used by the respondents in the study area. It is come to know that m a maximum of 91.39 respondents prefer the class teachers' materials, 90.23 per cent of the respondent use the classroom notes, 73.01 per cent of the respondents prefer E-Books, 58.11 per cent like E-Content, 47.18 per cent prefer YouTube Link, 42.88 per cent of the students like Bazar notes, 41.39 per cent of the respondents refer e-journals and only 25.16 per cent of the respondents follow the MOOC Courses. It is further noted that the majority of the respondents follow the class teacher's materials.

Table 11: Respondents awareness about Online Courses Offered by Ministry of Education During the period of Pre and Post Covid-19

Sl. No.	Particulars	Respondents awareness about Online Courses					
		Arts & Humanities		Science		Engineering	
		Pre	Post	Pre	Post	Pre	Post
1	Swayam	19	98	134	202	186	202
2	NPTEL	22	102	119	203	178	202
3.	Spoken Tutorial	16	94	138	194	174	198
4.	Epathshala	24	81	105	197	168	194
5.	E-Yanthra	N.A	N.A	148	193	185	199
6.	NDLI	18	123	98	189	183	201
7.	Sodhganga	22	112	112	173	198	197
8.	E-Sodhsindhu	25	87	104	169	193	199
9.	Fossee	N.A	N.A	102	174	187	194
10.	Virtual labs	N.A	N.A	185	185	202	198
11.	MOOC	12	68	168	169	198	202

(Source: Primary data)

Table 11 reveal the respondents' awareness about the online courses offered by the Ministry of Education during the period of pre and post-Covid-19. It is understood that arts and humanity students not aware of online courses offered by the central ministry of education, even after covid-19, a meagre number of students aware of the same. In the case of science and engineering students, most of them well-known for the various courses offered by the central ministry of education. After covid-19 engineering and science students know the impact of the courses during the pandemic situation.

Table 12: Respondents Attitude of Learning during Pre and Post Covid-19

Sl. No.	Respondents Attitude of Learning	Pre Covid-19	Post Covid-19	Difference
1	Flexibility	4.231	4.137	0.094
2	Usability	4.532	3.683	0.849
3.	Sufficiency	4.127	3.892	0.235
4.	Accessibility	4.364	3.876	0.488
5.	Content Quality	4.369	4.153	0.216
6.	Guidance Services	4.127	3.573	0.554
7.	Personalization	4.263	3.274	0.989
8.	Instructors' responsiveness	4.181	3.548	0.633
9.	Instructors' interactive	4.254	3.953	0.301
10.	Instructors' attitude	4.163	3.641	0.522
11.	Instructors' enthusiasm	4.239	3.489	0.75
12.	self-discipline	4.073	3.853	0.22
13.	learning conditions	4.253	3.478	0.775

Table 12 exhibits the respondents' attitude the learning during pre and post Covid-19. The researcher selected thirteen variables to analyse the concept. A few variables have highly deviated namely Usability, Personalization, Instructors' responsiveness and learning conditions. The remaining variables Flexibility, Sufficiency, Accessibility, Content Quality, Guidance Services, Instructors' interaction, Instructors' attitude, Instructors' enthusiasm and self-discipline. Moreover, the variables re further analysed to find out any significant difference among learning position during the period pre and post-Covid-19.

Table 13: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Covid-19	4.2443	13	0.12276	0.03405
	Post Covid-19	3.7346	13	0.26679	0.07400

Table 13 shows the Paired Samples Statistics of the variables selected for the study. It also discloses the mean value of the pair, number of variables, standard deviation and standard error of the mean.

Table 14: Paired Samples Correlations

Respondents attitude		N	Correlation	Sig.
Pair 1	Pre Covid-19 &Post Covid-19	13	0.105	0.734

Table 14 exhibits the Paired Samples Correlations of the variables selected for the study. Correlation value 0.105, which is less than 0.5 and corresponding significance value 0.734, more than 0.05 at 95 per cent confidence level.

Table 15: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	99% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Covid'19 Post Covid'19	0.50969	0.28178	0.07815	0.27098	0.74841	6.522	12	0.000

Table 15 divulges the Paired Samples Test of the respondent's attitude towards the learning of pre and post covid-19. Mean value 0. 50969, standard deviation 0.28178, standard error of the mean 0.07815, "t" value 6.522 with 12 degrees of freedom and significance value 0.000 at 99 per cent confidence level. The "t" value is more than 1.96 and the significance value is less than 0.01, hence it is concluded that there is no significant difference in the respondents' attitude towards learning during the pre and post covid-19.

FINDINGS

- The researcher found that a maximum of 312 respondents (51.66 per cent) female and 292 respondents (48.34 per cent) male.
- It is understood that 360 respondents (59.60 per cent) undergraduates, 194 respondents (32.11 per cent) postgraduates and only 8.27 per cent M.Phil. scholars.
- It is known that a maximum of 204 respondents (33.78 per cent) studying science subjects, 202 respondents (33.44 per cent) engineering subjects and 32.78 per cent of them studying arts and humanities.
- It is understood that a maximum of 236 respondents come from the rural area to their colleges, 216 respondents (35.76 per cent) from urban and 152 respondents (25.17 per cent) from the semi-urban area to their colleges.
- It is found that 93 postgraduate students, 88 undergraduate students and 22 M.Phil. scholars have some online classes/ seminar experiences and the remaining 401 respondents not have any online class or seminar experience.

- The study revealed that 138 engineering students, 38 science students and 27 arts and humanities have some online classes/ seminar experiences and the remaining 401 respondents not have any online class or seminar experience.
- It is found that a maximum of 254 respondents (42.05 per cent) use the mobile phone to attend the online classes, 154 respondents (25.5 per cent) tablet, 112 respondents (18.54 per cent) laptop and only 84 respondents (13.91 per cent) use the desktop to attend the online classes.
- It is noted that a majority of the respondents (57.62 per cent) used WhatsApp, 27.15 per cent of the respondents' use Telegram and 15.23 per cent of the respondents use Gmail for their online classes.
- It is understood that 286 respondents (47.35 per cent) seen their classes in the Google meet, 179 respondents (29.64 per cent) zoom app, 61 respondents (10.10 per cent) Own LMS, 58 respondents (9.60 per cent) Webex and only 3.31 per cent of the respondents use some other apps for their online classes.
- It is come to know that m a maximum of 91.39 respondents prefer the class teachers' materials, 90.23 per cent of the respondent use the classroom notes and 73.01 per cent of the respondents prefer E-Books.
- It is understood that arts and humanity students not aware of online courses offered by the central ministry of education, even after covid-19, a meagre number of students aware of the same. In the case of science and engineering students, most of them well-known for the various courses offered by the central ministry of education.
- A few variables have highly deviated namely Usability, Personalization, Instructors' responsiveness and learning conditions.
- The "t" value is more than 1.96 and the significance value is less than 0.01, hence it is concluded that there is no significant difference in the respondents' attitude towards learning during the pre and post covid-19.

SUGGESTIONS

- Online platforms with enriched safety and safeguarding measures, particularly for virtual learning tools should be ensured.
- The devices must have the latest software updates and antivirus programs otherwise the students have to face some problems.
- Colleges should monitor the good online behaviours of students while conducting online classes.
- Social networking platforms should enhance online platforms with more safety measures.
- Online learning is not cheap for all including the poor and disadvantaged groups of society. So necessary steps should be taken by colleges to minimise this gap between privileged and unprivileged learners.
- Learners and educators must be familiar with Web-based interactions such as email, discussion boards and chat rooms before joining online classes.

CONCLUSION

E-Learning is the most common method of distance learning today. During the lockdown period for Covid-19, online learning is the best platform to keep learners/educators engaged and safe by maintaining social distancing. Govt. of India has initiated different online learning platforms to continue educational activities during the lockdown period which are also been recognised by UNESCO and World Bank. The online Learning method utilises various applications of the internet to distribute classroom materials and help learners and educators interact with one another. Using the various technologies available for Online Learning, educators can provide a more interactive distance learning experience by delivering real-time, synchronous video conferencing. Online learning is considered a future learning process and this platform has the potential of overall change in pedagogy of teaching-learning in the modern world.

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