JIM - Journal of Information Management
Vol. 8, No. 1, January - June 2021, pp 36-43
DOI : 10.5958/2348-1773.2021.00006.0

E-Learning versus Traditional Learning: A Comparative Study among the Academic Community in Kerala after COVID-19

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Received: 20-01-2021; Accepted: 30-06-2021

ABSTRACT

This study compares the usage of traditional learning platforms and electronic learning (e-learning) platforms after the COVID-19 pandemic among the academic community in Kerala state. The study examined awareness of e-learning platforms among the students and the purpose, frequency, type and mode of preference of e-learning platforms etc. Also, the study compared the opinion of respondents regarding the traditional learning and e-learning platforms. Online questionnaires were used for data collection after the COVID-19 lockdown period. The findings revealed that the majority of the respondents are moderately aware of using e-learning platforms, and more than half of the respondents started using e-learning platforms within one year. The students are using e-learning platforms mainly for their course related studies and competitive exam preparation. Respondents of the study are always preferring asynchronous learning and majority are depending on independent social e-learning platforms such as YouTube classes, social media learning etc. Based on the study, it is evident that majority of the respondents are sometimes preferring e-learning platforms instead of traditional learning platforms.

Keywords: Academic community, Classroom learning, COVID-19 pandemic, Electronic learning, Kerala, Online learning, Traditional learning

INTRODUCTION

The process of acquiring new information is called learning. Educating every student in the community means enabling him/her to learn new things. The goal of education is to shape a person perfectly in literacy, character, attitude, cultural behaviour and social responsibility. At present, the learning process is taking place in two different ways; traditional learning method, electronic learning or e-learning. The traditional method of learning means teaching methods like classroom learning, face-to-face interaction etc. and e-learning means learning through ICT (Information, Communication and Technology).

The spread of the COVID-19 epidemic around the world has forced all educational institutions to close. This prompted the academic community to think of alternative methods of learning and teaching. This paved the way in all educational institutions for transition to e-learning or online learning from traditional learning methods. The learning process has migrated to a digital environment

that effectively links teaching professionals and students with the help of electronic devices such as desktop computers, notebook computers, smartphones and the internet. The aim of this study is to compare the use of e-learning platforms and traditional learning platforms among Kerala's academic community after COVID-19 pandemic.

LITERATURE REVIEW

Mathivanan *et al.* (2021) in their article entitled Adoption of e-learning during lockdown in India specifies that most of the educational institutions in India were based on traditional learning methods and followed the traditional arrangement of face-to-face communication/lectures in a classroom. The unexpected outbreak of the COVID-19 virus has shaken the world and this situation challenged the entire education system around the world and forced teachers to immediately switch to an online mode. Many educational organizations that were not ready to change the traditional system later had no other choice, so they switched to online teaching methods.

Miliæeviæ *et al.* (2021) in their study regarding e-learning perspectives in higher education institutions, stated that the use of modern ICT in education has enabled a special type of learning known as distance learning. This type of study requires a level of knowledge and skills appropriate to traditional learning.

Munna and Mazumdar (2021) emphasized that, from the traditional point of view, the concept of higher education is always referred to as face-to-face meetings between lecturers and students held in the lecture hall or classroom, through which students receive a better education. But, online learning has become very popular recently as everyone has dropped out of educational institutions (due to COVID-19 pandemic) and started learning from home to continue their academic studies.

Nalini *et al.* (2020) observed that online learning is better than traditional textbook based learning. The nature of teaching and learning, including new technology, will redefine and oppose superficial learning, and digital learning supports in-depth and self-directed learning.

Radha *et al.* (2020) in their study specified that e-learning seems to be an upcoming trend as it is becoming more widespread. The online learning method is most suitable for everyone because they can learn at their convenient time depending on their availability and comfort. The findings of their study shows that e-learning has become very popular among students around the world since the lockdown period caused by the COVID-19 pandemic.

Singh *et al.* (2020) conducted a study to compare traditional learning with e-learning in university education. The study analyzed that e-learning is a necessity of today's age to bridge the gap between the needs of universities and the real life industry. In addition, they stated that e-learning based courses will be more influential and will give students more skills and exposure than traditional learning mode.

OBJECTIVES

- To analyse the level of awareness of e-learning platforms among the academic community in Kerala.
- To identify frequency of using e-learning platforms and purpose behind the usage of e-learning platforms.
- To identify the preference of the academic community towards various types and kinds of e-learning platforms.
- To compare the usage of e-learning platforms and traditional learning platforms among the academic community in Kerala.

METHODOLOGY

The study is meant to compare the traditional learning and e-learning platforms' usage after the outbreak of COVID-19 pandemic. To fulfil the objectives of the study, a detailed, well-structured online questionnaire was

prepared and distributed to the academic community in Kerala using various social media sites, mailing lists etc. The data have been collected from students who are currently pursuing various academic courses in Kerala after the nationwide lockdown period. The samples were selected through a snowball sampling method and a number of 664 valid filled in responses were selected for the data analysis. Responses in the questionnaires were coded and classified, and the data was organized, analysed, and interpreted by various statistical methods using appropriate statistical tools. The software package SPSS 23 and Microsoft Excel 2019 has been used for data analysis.

ANALYSIS AND FINDINGS

This section deals with the comparison of traditional and electronic learning platforms by the academic community in Kerala. 664 responses were collected from various categories of students and the data was coded and analysed using various statistical tools and the results are presented in the form of tables and graphs below.

Demographic Characteristics of Respondents

The distribution of respondents according to their demographic characteristics such as gender, age group, locale etc are tabulated below.

Table 1 shows that the majority of the respondents belong to the female category (61.30%) and belong to the age group of 21 to 25 (45.03%). Most of the respondents, i.e. 63.70%, belong to rural areas.

Course wise Distribution of Respondents

Respondents were categorised into various categories according to their courses, i.e. Undergraduate (UG) students, Post-Graduate (PG) students, research scholars, trade oriented course students etc. The course wise distribution of respondents are diagrammatically represented in Figure 1.

Table 1: Distribution of Sample by their Characteristics

Demographic Characteristics	Number of Respondents	Percentage of Respondents
Gender		
Male	257	38.70
Female	407	61.30
Age Group		
Below 18	8	1.20
18 to 21	191	28.77
21 to 25	299	45.03
25 to 30	145	21.84
Above 30	21	3.16
Locale		
Urban	241	36.30
Rural	423	63.70

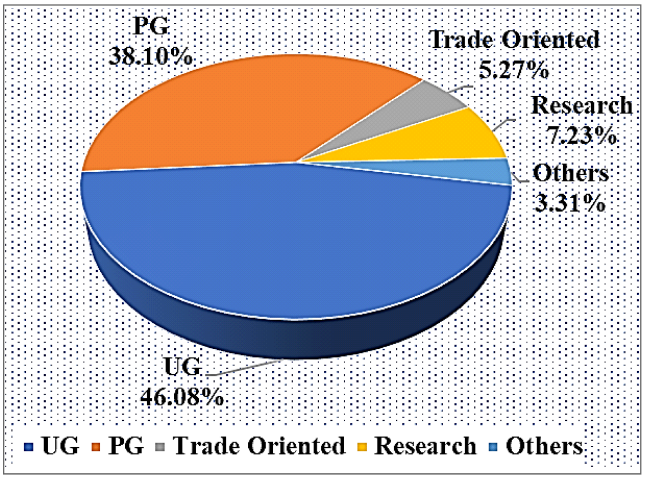


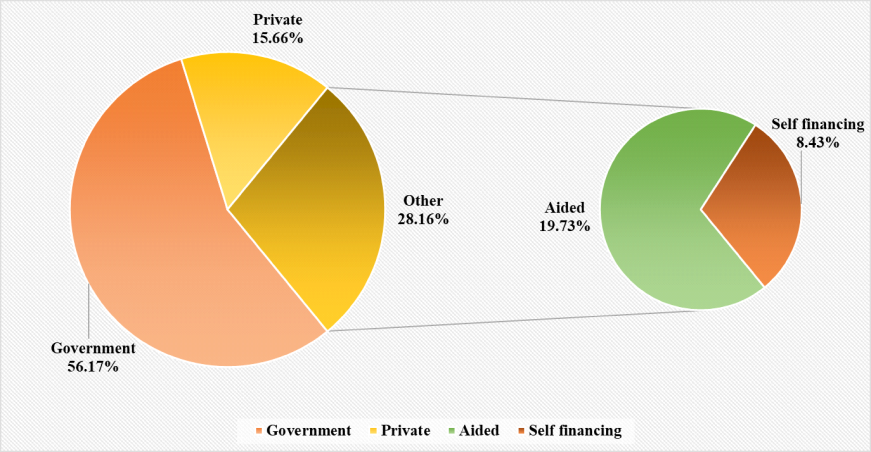
Figure 1: Course wise Distribution

It is found that out of the total respondents, the lion's share of respondents (46.08%) belongs to UG course, which is followed by 38.10% of PG students, 7. 23% of researchers, 5.27% of students pursuing trade-oriented courses, etc.

Institution Category wise Distribution of Respondents

The respondents were categorized according to the type of their institution such as; government, private, self-financing and aided institutions.

Figure 2: Institution Category wise Distribution



It is clear from Figure 2 that more than half of the respondents (56.17%) belongs to government institutions, which is followed by 19.73% respondents who belongs to aided institutions, 15.66% belongs to private institutions and the remaining (8.43%) of respondents belongs to self-financing institutions.

Awareness of E-Learning Platforms

Awareness of e-learning platforms helps the students to make use of it very effectively as higher awareness results in higher usage of e-learning platforms.

The results from Figure 3 reveals that the lion's share of the respondents (63.55%) are moderately aware about the e-learning platforms and 23.64% of respondents are extremely aware and only 12.80% of respondents are slightly aware.

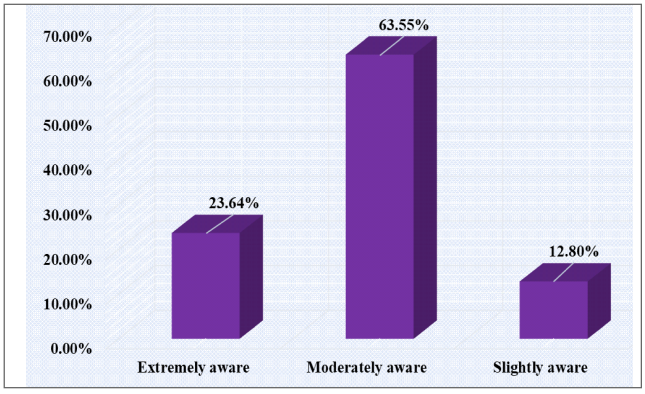


Figure 3: Course wise Distribution

Years in Using E-Learning Platforms

E-learning platforms are playing a major role among the academic community, especially nowadays. But, it has been in use for the last many years among the academic community. Figure 4 shows the number of years in using e-learning platforms by the students.

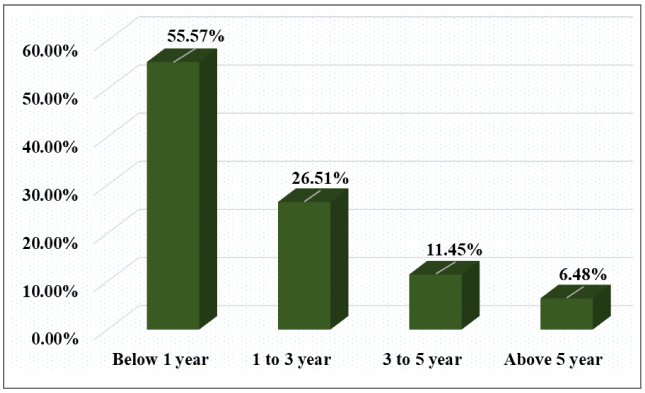


Figure 4: Year wise Usage of E-Learning Platforms

The figure reveals that more than half of the respondents (55.57%) had started using e-learning platforms within one year. One fourth of the respondents (26.51%) are making use of e-learning platforms for the last 1 to 3 years, 11.45% respondents are using for last 3 to 5 years and 6.48% respondents are using e-learning platforms for more than 5 years. This clearly indicates that within one year, i.e. after the outbreak of COVID-19, the majority of the respondents started using e-learning platforms.

Purpose of E-Learning Platforms

The purpose of using e-learning platforms is considered to be one of the main parameters that affect the increase in its usage. Here, the purpose of using e-learning platforms by the respondents are tabulated.

Table 2 clearly depicts that first priority of the respondents for using e-learning platforms is for their course related studies (60.69%), which is followed by competitive exam preparation (40.21%), updating knowledge (40.06%), skill development (33.43%), career development (31.33%), edutainment (18.67%), research oriented studies (17.77%) and others (0.90%).

Preferred Mode of E-Learning Platforms

E-learning platforms are available in two modes; synchronous learning and asynchronous learning. Attending class at the same time while the class is going is termed as synchronous learning and attending the course content at your own time is termed as asynchronous learning. The table shows the preference for using these modes of e-learning platforms by the respondents.

Table 3 shows that 35.24% of respondents sometimes prefer synchronous learning while the majority of the respondents (43.37%) always prefer asynchronous learning. Based on the mean score rating, it is clear that respondents are very often preferring synchronous learning (3.27) and are always preferring asynchronous learning (4.06).

Type of E-learning Platforms

Nowadays, online learning is provided in various types. Online courses are provided from private institutions to government organisations. Various e-learning platforms are available globally for academic use. Government is also providing various e-learning platforms to their students such as SWAYAM, NPTEL etc. Also, globally accepted e-learning platforms are used by the academic community in the present era such as; Coursera, Udemy etc. Independent e-learning platforms are also existing, which means e-learning through YouTube, social media etc. Here, the analysis is carried out to identify which type of e-learning platforms are mostly used by the respondents. Table 4 shows the various types of e-learning platforms used by the respondents.

Based on the mean score rating, it is clear that the respondents are very frequently (4.13) making use of independent social e-learning platforms like classes

Table 2: Purpose of E-Learning Platforms

Purpose	Number of Respondents*	Percentage of Respondents
Course related	403	60.69
Competitive exam preparation	267	40.21
Update knowledge	266	40.06
Skill development	222	33.43
Career development	208	31.33
Edutainment	124	18.67
Research oriented	118	17.77
Other	6	0.90

**Multiple response allowed*

Table 3: Preference for Mode of E-Learning Platforms

Preferred mode of E-learning platforms		Always prefer	Very often prefer	Some-times prefer	Rarely prefer	Never prefer	Total	Mean	S.D.
Synchronous learning	n	114	165	234	88	63	664	3.27	1.173
	%	17.17	24.85	35.24	13.25	9.49	100.00		
Asynchronous learning	n	288	201	126	27	22	664	4.06	1.040
	%	43.37	30.27	18.98	4.07	3.31	100.00		

n- Number of Respondents; %- Percentage of Respondents; S.D.- Standard Deviation

Table 4: Type of e-learning platforms

Type of e-learning platforms		Very frequently using	Frequ-ently using	Occasio-nally using	Rarely using	Very rarely using	Total	Mean	S.D.	T	P-Value
Govt. e-learning platforms	n	85	136	155	89	199	664	2.73	1.407	49.967	0.000*
	%	12.8	20.48	23.34	13.4	29.97	100.00				
Global e-learning platforms	n	99	125	145	90	205	664	2.73	1.445	48.754	0.000*
	%	14.91	18.83	21.84	13.55	30.87	100.00				
Independent e-learning platforms	n	330	185	88	29	32	664	4.13	1.106	96.322	0.000*
	%	49.7	27.86	13.25	4.37	4.82	100.00				
Other e-learning platforms	n	130	149	137	76	172	664	2.98	1.470	52.295	0.000*
	%	19.58	22.44	20.63	11.45	25.9	100.00				

**: Significant (<0.05); Not significant (>0.05);n- Number of Respondents; %- Percentage of Respondents; S.D.- Standard Deviation; P Value- Probability Value*

through YouTube and social media. It is followed by other e-learning platforms which are occasionally used (2.98) such as private lectures, classes for competitive exams etc. The government and global e-learning platforms are used by the respondents occasionally which has a mean score rating of 2.73.

E-Learning Methods versus Traditional Learning Methods

E-learning or online learning platforms have many more advanced facilities than traditional learning processes. The topmost advantage is that it helps the community to learn from anywhere in the world. Following figure shows the level of agreement by the respondents to the statement that e-learning platforms helped them to improve their learning skill than traditional method of learning (classroom learning) after COVID-19 pandemic.

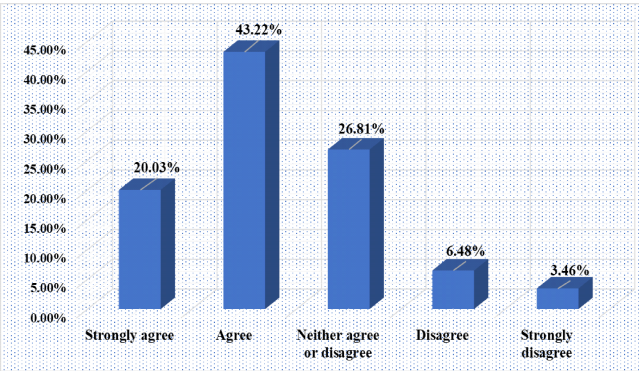


Figure 5: E-Learning v/s Traditional Learning Methods

Figure 5 shows that majority of the respondents (43.22%) agreeing to the statement that e-learning platforms helped them to improve their learning skill than traditional learning method after COVID-19, which is followed by 26.81% respondents who are neither agreeing nor disagreeing and 20.03% respondents who are strongly agreeing to the statement.

E-Learning Platforms versus Traditional Learning Platforms

An analysis among the respondents was conducted to analyse whether these e-learning platforms are better than traditional learning platforms or not. The responses are graphically represented in Figure 6.

Figure 6 depicts that most of the respondents (30.87%) have a neutral opinion regarding this statement that they are not agreeing or disagreeing with this statement. 28.92% of respondents are agreeing to the statement that e-learning platforms are better than traditional learning platforms, followed by 22.44% of respondents who are disagreeing and 11.90% of respondents who are strongly agreeing to this statement. Based on the mean score rating (3.19), students are agreeing that e-learning platforms are better than traditional learning platforms.

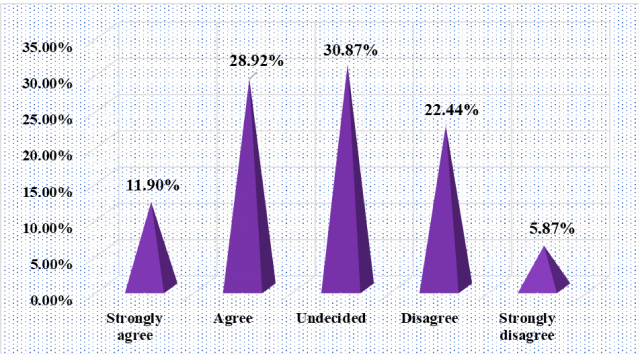


Figure 6: E-Learning v/s Traditional Learning Platforms

Preference of Respondents: E-Learning Platforms or Traditional Learning Platforms

After the outbreak of COVID-19 pandemic, various changes has been adopted by many academic institutions for their teaching process. Online learning is one among that, and almost all educational institutions adopted e-learning as their official learning method. A sudden change is not possible in the academic community, because the students need to cope with the new environment. So, it is essential to find out the preference of students that the usage of e-learning platforms instead of traditional learning platforms is acceptable to them or not.

Figure 7 shows that majority of the respondents (39.46%) are sometimes preferring e-learning methods instead of traditional learning, followed by 21.69% of respondents who are very often preferring, 16.72% of respondents who are rarely preferring, 12.50% of respondents who are always preferring and 9.64% of respondents who are never preferring. Based on the mean score rating (3.11), students are very often preferring e-learning platforms instead of traditional learning platforms.

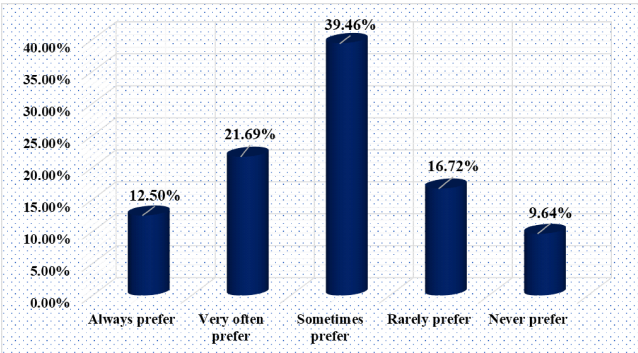


Figure 7: Respondents' Preference for Using E-Learning Platforms

SUGGESTIONS

The study has suggested the following recommendations from the respondents;

- E-learning platforms should not make business in education, which will make negative impact on educational systems.
- Awareness on e-learning platforms should be given to students from school level classes.
- Government should ensure every student is able to access the internet and basic facilities for accessing e-learning platforms like smartphones and televisions should be available for everyone.
- Online learning will not give a real time experience like traditional learning. So, teachers should give more attention to students.

CONCLUSION

Technology is advancing now at vast speed. The traditional learning platforms like classroom studies and face to face interaction are now replaced by virtual learning like online classes. This study helped in comparing the students' opinions regarding e-learning platforms and traditional learning platforms. The study revealed that a very small number of students were using e-learning platforms earlier, but after the outbreak of COVID-19, the majority of them started making use of it. The study shows that majority of the students prefer an asynchronous mode of learning, because they can choose their comfortable study time. Students are using all types of learning platforms, but the most usable one are independent social e-learning platforms such as YouTube, social media channels etc. Furthermore, the results shows that majority of the respondents agree that e-learning platforms helped them to improve their

learning skill more than traditional learning methods after COVID-19 pandemic. Based on the analysis, it is clear that the students are agreeing that e-learning platforms are better than traditional learning platforms and they are very often preferring e-learning platforms instead of traditional learning platforms. COVID-19 pandemic affected many things in the world and the main one was our education system. This will be marked in the history of the education system because it divided the education system as; before COVID-19 and after COVID-19.

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How to cite this article: Shibin SB, Vijayan M and Sangeetha VR, 2021. E-Learning versus Traditional Learning: A Comparative Study among the Academic Community in Kerala after COVID-19. *JIM - Journal of Information Management,* Vol. 8, No. 1, pp. 36-43.