

Learning Effectiveness among College Students during the COVID 19 Pandemic- A Study with Reference to Kerala

Jeothilakshmi SK

Abstract

The pandemic situation created by COVID 19 virus was totally unexpected and has affected every spheres of life. It made its foot prints in almost all the countries in the world, the only difference being the magnitude of its severity. Kerala, a state in India, which has a consumeristic economy was also affected severely by this Pandemic. The education sector which had remained reluctant to embrace the online courses provided by the Swayam – MOOC, course era etc. readily clinched on to it, as it was the need of the hour. This promoted the use of a wide array of online platforms depending on the convenience of teachers and on the accessibility of students. This sudden change in the educational platform from classroom teaching to online mode has of sure affected the learning effectiveness either positively or negatively. This study tries to analyse the e- learning effectiveness of UG students from the colleges of Kerala with the help of 7 factors which are usually used by researchers in determining learning outcomes. This study is descriptive in nature and has collected data from colleges representing the whole of Kerala. The state was divided in to 3 zones and colleges representing the 3 zones were selected conveniently. Simple analysis with the help of descriptive statistics was carried out to measure the learning effectiveness of students in online mode of teaching. The chi square test was also used for assessing the effectiveness of online class and the mode chosen for class delivery.

Keywords : *Pandemic, Educational platform, Learning Effectiveness, Rural College*

Introduction

World has witnessed an unusual situation which did not have any precedence for dealing with it. When COVID 19 caused by corona virus was identified as a Pandemic, none of the leadership in the countries across world had an idea about the magnitude of its impact and how it is going to affect their economies. Nations were forced to go for complete lock downs by closing all their boundaries. The countries which restrained from doing so were devastated by the spread of the virus and were forced to accept it. The so-called developed economies could not resist the spread of the virus and the health care sector show cased all its inefficiencies in handling the Pandemic. The situation was not different in India also. But the timely involvement of the government, both central and state, by declaring lockdown and by creating awareness about the virus among the public has to some extent helped to overcome the worst impact which was expected in a populous country like India. Though 1.95 million people lost their lives due to this vast spreading virus, the world economies are in a recovery stage by opening up and initiating measures

to rejuvenate the worst effected sectors.

Kerala, the southernmost state in India, which is famous for its literacy rate, growth models and digitalization was also severely hit by the Pandemic. The economic growth was stagnated and the state is facing severe financial crisis. Many new initiatives become the new normal during this Pandemic. Work from home, online mode of teaching and learning, online tele medicine platforms like e- sanjeevani, digital transactions etc. are some among them. The education sector which had remained reluctant to embrace the online courses provided by the Swayam – MOOC, course era etc. readily clinched on to it as it was the need of the hour. The secondary and higher secondary levels of school education were handled under one platform with the help of KITE Vickers and the teachers supporting the students at the base level by clarifying doubts.

The higher education sector was given the freedom to handle classes using any of the online platforms at the individual teacher level. This promoted the use of a wide array of online platforms depending on the convenience of teachers and on the accessibility of students. From the very beginning of lock down period itself, the teachers in the higher education sector took up the initiative to cover the syllabus through various online educational platforms. The digitalization of

education was accepted by students of all disciplines at the initial stages. But the sudden change from the classroom teaching to online platforms has created some effect in the education sector. Whether it is positive or negative, time will prove. Numerous studies have been conducted in different parts of the world to assess the effectiveness of online platforms and learning and teaching effectiveness. A quick analysis of some of the available literatures from this area is quoted here.

Review of Literature

Swinnerton et al. (2018) in their study on digitalization and marketization of higher education in both United Kingdom and South Africa noted that though there are inequalities in the facilities available for e-learning, the use of e-learning platforms for university courses is effective in ensuring relationships between universities and private sector. They are also of the view that lack of technological skill will affect their employability after completing the course.

Kapasia et al. (2020) in their study to assess the impact of lockdown amidst COVID-19 on undergraduate and postgraduate learners of various colleges and universities of West Bengal concluded that, during the lockdown period, around 70% of the learners were involved in e-learning and that majority of students used android phones for their study purpose. The major problems faced by the students were network issues, depression, and unfavourable home environment. It was also found that students from remote areas and marginalized sections faced enormous challenges for study during this pandemic period.

Lederman (2020) in his study observed that both teachers and students were compelled to adopt the online mode of teaching and learning. It is not due to their interest in online mode nor their initiative to venture out new methods of learning, that they have resulted in the use of this new platform. It is just the need of the hour created by the COVID 19 virus. The study conducted by the DQ Institute in 2019 revealed that the pandemic situation is an opportunity to channelise the digital skills of children into the field of educational opportunities. This digital intelligence will help in reducing the cyber risk, at the brim of which the children are now.

Tam and El-Azar (2020) is of the view that it is essential to inculcate resilience in the education system. They also pointed out that there is a possibility of creating three trends which will transform the future. These trends include innovations in education, boldening of public-private partnership in the education sector and the gap in digital divide. Muthuprasad et al. (2020) focused on the perception of students from Agricultural University about online learning and their preference for various attributes of online platforms. The study revealed that

majority of them was willing to embrace the online mode of education to complete the curriculum during this pandemic. Majority of the students preferred to use smart phone for online learning. The students opined that flexibility and convenience of online classes makes it an attractive option, whereas broadband connectivity issues in rural areas makes it a challenge for students to make use of online learning initiative. The few literatures quoted reveal the need for accepting the online mode of teaching learning and the consequences of adopting the new platforms.

Background and Aim of the Study

The shift from the face-to-face traditional mode of teaching/learning to the online mode was not as part of a calculated move. It was not adopted by considering all the pros and cons of the new method and so no one was sure about the result of such a giant leap. So, it is felt relevant to have a look at the learning effectiveness of students as there is possibility of continuing with the online platforms for the rest of this academic year also. Hence an effort is made here to analyse the learning effectiveness among UG students during this pandemic with the aim of assessing the effectiveness of various online teaching modes adopted during this Pandemic and to analyse the learning effectiveness among the under graduate students in Kerala.

Hypothesis

H0: There is no significant association between the mode of conveying online classes and its effectiveness

Methodology

The study is both descriptive and empirical in nature, and focused on all the UG students studying in various colleges in Kerala. Convenience sampling was used in this study, due to time constraints. Kerala was divided into 3 zones and efforts were taken to collect responses from the students residing in all the 3 zones. In the same way, as there is possibility of difference in the learning outcomes of commerce, arts and science student, due care was taken to include students from these three disciplines. Two colleges from each zone were selected and data were collected from 5 students of each discipline, summing up to a total of 90. However, the responses from only 78 students were received. The primary data was collected with the help of a questionnaire which was administered through google forms. Various statistical tools like chi-square test, descriptive statistics and percentage analysis were used in this study for arriving at conclusions. Presentation tools like graphs and tables are also used in highlighting the outcomes.

Result and Discussion

Gender Profile

The gender profile of the respondents are furnished in Table 1 and Fig. 1 given below.

Table 1 : Gender Profile of UG Students Studying in Various Colleges in Kerala

Gender	Respondents	
	No	%
Male	23	29
Female	55	71
Transgender	0	0
Total	78	100

Source: Primary Data

Fig.1 Gender Profile of Respondents



The gender profile of respondents revealed that 71% of the respondents are female and 29% are male. None of the respondent belonged to transgender.

Course Profile

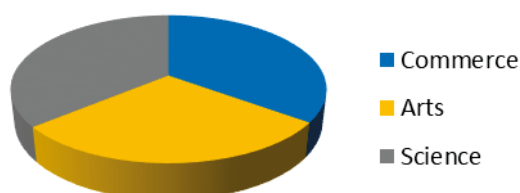
This indicates the course which the sample units are pursuing. The course profile of the respondents are furnished in Table 2 and Fig. 2 given below.

Table 2 : Course Profile of UG Students Studying in Various Colleges in Kerala

Course	Respondents	
	No	%
Commerce	27	35
Arts	23	29
Science	28	36
Total	78	100

Source: Primary Data

Fig. 2 Course Profile of Respondents



The above table and graph show the course profile of respondents. Due care has been given to include students from all the three disciplines. 36% students pursue science course, 35% commerce and 29% belongs to arts discipline.

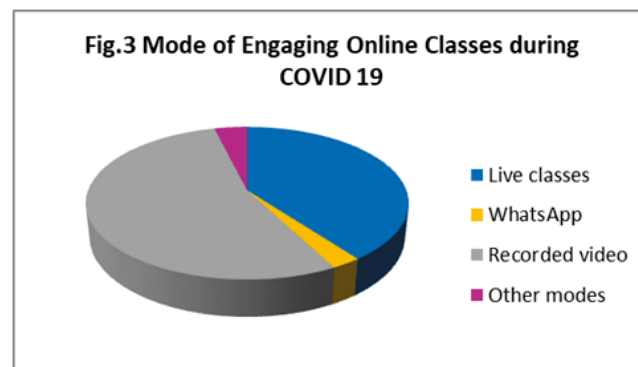
Mode of Engaging Online Classes during the Pandemic

When the higher education department gave orders to engage online classes for the UG and PG students in the COVID 19 period, no guidelines regarding the mode of delivery was prescribed. It was left to the discretion of teachers to handle the situation in an appropriate manner. The teachers, considering the digital divide among their students, used different modes for conveying their classes. The data are presented in Table 3 and Fig.3 given below.

Table 3 : Mode of Engaging Classes during COVID 19 Pandemic in Kerala

Mode	Respondents	
	No	%
Live classes	31	40
WhatsApp	2	3
Recorded video	42	54
Other modes	3	4
Total	78	100

Source: Primary Data



The above table and Figure show the different modes adopted by various colleges while handling online classes. As per the opinion of the respondents 54% used live classes for conducting their classes and 40% used recorded videos. Only 2% used WhatsApp audios to communicate with the class and other means like distributing study materials like pdf were adopted by only 4%. This indicates the considerable efforts taken by teaching community to effectively handle the situation.

Effectiveness of Online Classes Engaged

There are numerous methods through which one can engage classes even during the COVID 19 pandemic period. But the result of these efforts can only be measured by the responses of the stake holders of it,

basically the student community. When the sample respondents were asked to measure the effectiveness of online classes engaged during the pandemic on a

linear scale, the responses were varying indicating the different requirements of students.

Table 4 : Effectiveness of Online Classes Engaged during the COVID 19 Pandemic Period

Mode	Poor	%	Average	%	Good	%	Total
Live class	8	36	17	40	6	43	31
WhatsApp audios	0	0	2	5	0	0	2
Recorded video	13	59	21	50	8	57	42
Others	1	5	2	5	0	0	3
Total	22	100	42	100	14	100	78

Source : Primary data $\chi^2 = 2.73, = 0.603975$

H0: There is no significant association between the mode of conveying online classes and its effectiveness

The chi-square test revealed that there is no association between the mode of classes engaged and the effectiveness of it ($p > 0.05$). Out of the respondents who rated the effectiveness of online classes to be poor, 59% were administered with recorded videos and 36% had received live classes. In the same way, among the sample units which opined that the effectiveness of online classes was average, 50% were engaged with recorded videos and 40% with live classes. Very few have rated the effectiveness of online classes to be good. So the null hypothesis is accepted on the ground that whatever may be the mode adopted for online teaching, it is not effective among all categories of students.

Learning Effectiveness among Students

The success of any measure adopted, whether it be government policies or any other new initiative adopted in the daily walks of life, will depend up on the value it creates for the stakeholders. In the same way, a kind of reforms adopted in the higher education sector due to the COVID 19 pandemic - the online classes need to be assessed with regards to their effectiveness and also by the learning outcomes on the student beneficiaries. In this study, a humble effort is made to study the learning effectiveness among the students who received online classes during the pandemic. The study identified seven variables that are most crucial for understanding the learning effectiveness of students. The variables identified are interactions, collaborations, motivation, mode of teaching, sufficiency of contents, assessment of learning outcomes and technological support.

Table 5 : Mean Score and Standard Deviation of Learning Effectiveness of Students

Variables	Mean	Std Deviation
Enough chances for interaction	3.41	0.917
More chances of collaboration	2.81	1.04
More level of motivation	3.23	1.08
Effective method of teaching	3.48	0.977
Contents provided was sufficient enough to understand the concepts thoroughly	3.51	0.802
Proper and timely assessment of learning outcomes were carried out by teachers	3.64	0.896
Technological support was available to access and also to fulfil the academic requirements	3.61	0.929

Source: Primary Data

The above table presents the mean and standard deviation of the opinions of respondents to the identified variables. When analysing the responses, it was noticed that most of the students remained neutral in their opinions and so the mean values also concentrate around the value given for that. They agree with the fact that sufficient contents were provided by the teachers for understanding the concept and timely assessment were carried out to check the learning outcomes. They also agree upon the fact that the technological support was good and that they could access the academic requirements with ease. As the standard deviation values are low, the data points tend to be very close to the mean values. So, all these indicate that the

effectiveness in learning through online means is only average and it cannot be accepted as a suitable method to be continued after the pandemic. The face-to-face communication that happens in the classrooms cannot be fully supplemented by these online platforms.

Findings from the Present Study

- The profile indicates that most of the respondents are female and almost equal priority is given to all the three main streams in colleges
- Recorded videos and live sessions are the commonly used modes for dealing with online classes
- There is no association between the mode adopted and the effectiveness of online classes.
- The learning effectiveness was only average during this pandemic and there is lack of confidence among students to agree that they have learned.

Conclusions

Situations contribute towards the acceptances of new modes, whether it be by governments, professionals or individuals. Though there will be a resistance in adopting changes, the change happens and spreads to all areas without much efforts. In the same way, the online mode of education was also widely accepted as there was no other means to undertake the traditional methods during this pandemic. But when its effectiveness with regard to learning outcomes are assessed the picture is not so promising. Apart from that, several students are also facing emotional problems due to lack of personal interaction.

References

- DQ Institute. 2019. Outsmart the Cyber-pandemic: Empower Every Child with Digital Intelligence by 2020. Retrieved from file:///D:/COVID/DQEveryChild%20DQ%20institute.html
- Tam, G. and D. El-Azar. 2020. Three Ways the Coronavirus Pandemic Could Reshape Education. World Economic Forum: Global Agenda, Retrieved from file:///D:/COVID/3%20ways%20the%20coronavirus%20pandemic%20could%20reshape%20education%20World%20Economic%20Forum.html
- Lederman, D. 2020. Will Shift to Remote Teaching be Boon or Bane for Inline Learning? Inside Higher Education. Retrieved from file:///D:/COVID/Most%20teaching%20is%20going%20remote.%20Will%20that%20help%20or%20hurt%20online%20learning.html
- Swinerton, B., Ivancheva, M., Coop, T., Perrotta, C., Morris, N.P., Swartz, R. and S. Walji. 2018. The Unbundled University: Researching Emerging Models in an Unequal Landscape. Preliminary Findings from Fieldwork in South Africa. Paper presented at the Proceedings of the 11th International Conference on Networked Learning 2018. Springer
- Muthuprasad, T., Aiswarya, S., Aditya, K.S. and K. Jha, Girish K.,

Students' Perception and Preference for Online Education in India during COVID -19 Pandemic. Available at SSRN: <https://ssrn.com/abstract=3596056> or <http://dx.doi.org/10.2139/ssrn.3596056>