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Impact of E-Learning on Higher Education during Covid-19 Pandemic

Divina Rosiline D'silva

Assistant Librarian, St. Teresa's College (Autonomous), Ernakulam-11, Kerala,

Ph: 9061630665, Email: divinarosa31@gmail.com

Aparna Mohanan

Professional Assistant, SOE, Cochin University of Science and Technology, Cochin-22, Kerala, PIN:

682022, Ph: 8129519232 Email: aparnakanimolayil@gmail.com

&

Anna Paulose

Assistant Librarian, MOSC Medical College, Kolenchery, Kerala, PIN: 682311,

Ph: 9496449528 Email: pauloseanna1994@gmail.com

Abstract:

Introduction: 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 smart phones 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.

Purpose: This study aims to assess the impact of E-learning on higher education during Covid-19 pandemic among students and teachers.

Methods: An online survey was conducted to collect the data. Teachers and students were selected from different colleges who were conducting online classes during the Covid-19 pandemic.

Result: The study found that, a total number of responses are 396 out of which 89.9% students are of Bachelor's Degree and 10.1% teachers of Bachelor's Degree responded to it. Out of 396 responses 249 of the respondents pointed out that online class facility is sufficient to grasp the subject well and 147 of the respondents disagree to it. 74.2% respondents are of the opinion that e-learning is useful for higher education and 25.8% of respondent are disagree for it.

Conclusion: The study concludes that e-learning can provide a personal learning experience and is useful for higher education. E-learning helps the users in finding their information easily and there by improve the quality of learning.

Keywords: E-learning; Covid-19; Higher education

1. Introduction

In the 21st century, at the end of 2019 in Wuhan, the high technology business hubs of China experience an epidemic of an entirely distinctive corona virus appeared that had

killed a few thousands Chinese people within the fifty days of spread and thousands of other citizens were suffered. The novel virus was nominated as COVID-19 novel corona virus by the Chinese scientist (Shereen et al. 2020). Later on, in a short period, this COVID-2019

spread worldwide and the outbreak has changed the operating conditions all over the globe within a month.

Like other sectors, the COVID-19 pandemic affected education also in many ways. Actions taken by the government have followed a common goal of reducing the spread of Corona Virus by introducing measures limiting social contact. Many countries suspended face-to-face teaching and exams as well as placing restrictions on immigration affecting Erasmus students. Where there are possibilities, traditional classes are being replaced with books and materials taken from school. Various e-learning platforms enable interaction between teachers and students and in some cases national television shows or social media platforms are being used for education.

Education provides the pathway to reach their destiny and helps in inculcating social responsibilities as well. The main core of education is to learn. Learning is a process of acquiring knowledge or skills through study, experience, or being taught. The outbreak of 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 to 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 very easy to implement and understand. The major component of this learning methodology are desktop, laptop, smart phones and the internet. E-learning provides rapid growth and proved to be the best in all sectors, especially in education during this lockdown.

Globally, due to COVID-19 outbreak universities closed and remain lockdown, most teachers and students are happy by the move of online education. The faculty members of

world-renowned universities have begun to get online instructor certifications to deliver online teaching to their students. At the same time, faculty and staff members are learning how to use online learning platforms. Furthermore, the quality of education and excellent infrastructures such as computers and IT modern equipment reception are now in massive demand and universities are changing their teaching models with the use of intellectual capital (Alvino; Di Vaio et al.). Thus, an unexpected shift from face-to-face learning to online learning there are few difficulties faced by students and lecturers. Moreover, most of the countries have significant issues with technological infrastructure in rural areas; thus, the standard of online education may be a critical issue that needs essential focus. Therefore, based on the above-said issues, this study tries to investigate the impact of male and female students on the use of the e-learning portal.

2. Related Studies

The study reviewed related studies on e-learning. The primary as well as secondary sources of literature and some journal articles have been consulted. (Shahzad et al., 2020) carried out a study on effects of COVID-19 in e-learning on higher education institution's students. The study compared males and females to e-learning portal usage. The data collected using structured questionnaire were analysed, verified and found that males and females have a different level in terms of usage towards e-learning portals. (Kundu and Dey, 2018) examined the flourishing e-learning scenarios in India, shows that e-learning raises the level of education, literacy and the overall economic development. Technology has made it possible to implement digital classrooms. However, the greatest advantage of using technology in classrooms remains the uniformity of the educational process which ensures that the same quality of education is delivered in all domains and regions. (Kumar's, 2018) survey on awareness,

benefits and challenges of e-learning among the students of Kurukshetra University revealed that majority of students agreed to e-learning as it provides an attractive learning environment and it helps to acquire new ideas. The result of this study shows that awareness about e-learning among the university students was good but e-learning software's knowledge was very poor and their main source to know about e-learning was the internet. .

3. Objectives of Study

The main objectives of the study are:

- To identify the factors and dimensions of e-learning
- To compare traditional learning and e-learning
- To identify the problems relating to e-learning

About E-learning

A learning system based on formalised teaching but with the help of electronic resources is known as e-learning. E-learning is a concept which morphologically merges from electronic-based learning. A considerable number of terms are also used to describe this mode of teaching and learning. Those include online learning, virtual learning, distributed learning, network and web-based learning (Muthuchamy&Thiyagu, 2011, p. 232). E-Learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times. Earlier, e-learning concept was not accepted whole heartedly as it was assumed that this system lack the human element required in learning. In Covid-19 pandemic era there is a need for academic continuation; educational institutions have shifted rapidly to e-learning. e-learning tools are playing a crucial role during this pandemic. This study attempts to analyse the impact of e-learning on higher education.

4. Methodology

This study tries to understand the importance of e-learning during Covid-19 pandemic. The study used a purposive online survey to collect data. The data has been collected from students and teachers from different colleges. The online questionnaire through Google forms has been prepared for data collection. The sample size of this study was 396 respondents.

5. Analysis and Findings

The evaluation of impact of e-learning on higher education during Covid-19 pandemic and its survey results are presented below.

5.1 Gadgets used for online class

The study found that, a total number of response are 396 out of which 89.9% students are of Bachelor's Degree and 10.1% teachers of Bachelor's Degree responded to it. In which 77.8% of respondents use Mobile phones as the gadget, 18.4% of respondents use laptop as the gadget, 2% of respondents use desktop as the gadget and 1.8% of responded use tablet as the gadget for online classes. This has been explained in detail in Figure1.

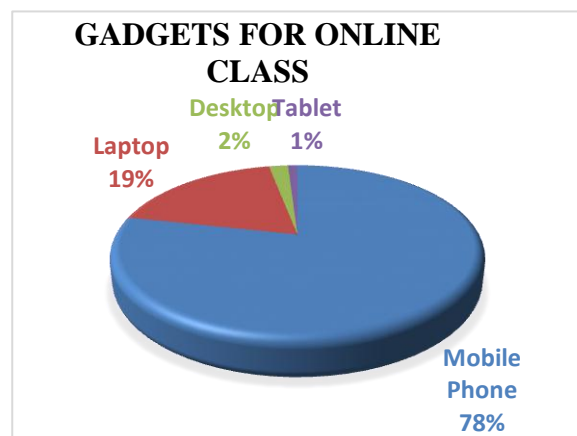


Fig.1: Gadget used for online class

5.2 Net connectivity used for online class

Regarding the net connectivity used for online classes can be divided as, 27.4% of respondent use Jio net and 21.3% of respondent use Airtel for net connectivity and 16.2% of respondent use Idea and BSNL and 9.9% of respondent

use Vodafone for net connectivity and 9.0% of respondent use other net connectivity for online classes. The details of net connectivity used for online class have been presented in Figure 2.

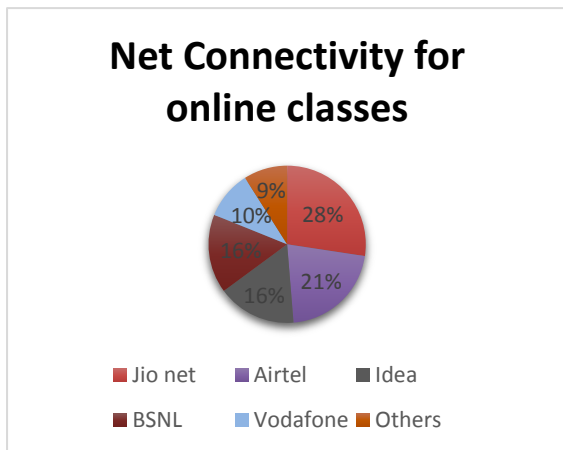


Fig.2 Net connectivity used for online classes

5.3 The online class facility is sufficient to grasp the subject well

Out of 396 responses 249 of the respondents pointed out that online class facility is sufficient to grasp the subject well and 147 of the respondents disagree to it. Regarding the platform used for online learning, majority of the respondent (55.3%) use Google meet and then followed by Moodle that is 35.4% and 6.8% uses Zoom platform and 1.1% of respondent use Google classroom. The details regarding the platform used for online learning are presented in Table 1.

Platform used for online learning	Percentage
Google meet	83.3%
Moodle	35.4%
Zoom	6.8%
Google classroom	1.1%

Table 1: E- learning Platforms

5.4 Is e-learning useful for higher education.

74.2% respondents are of the opinion that e-learning is useful for higher education and 25.8% of respondent are disagree for it.

Regarding some of the factors that contributes for the importance of e- learning in the field of education among which 45.2% of respondent are of the opinion that e-learning can provide a personal learning experience then followed by 32.1% respondents are of opinion that it helps the users in finding their information easily and 14.9% of respondents are of the opinion that e-learning improve the quality of learning and 7.8% respondents remarks that e-learning improve the efficacy of knowledge.

5.5 Barriers of using E-Learning platforms

Regarding the barriers of using e-learning platforms are networking problem, inappropriate contents, lack of time flexibility, Expensiveness etc. 85.1% of respondents mention that networking problem is the main factor that effect E-Learning platforms, followed by lack of time flexibility (7.1%) and then expensiveness (4.3%) and inappropriate contents (3.5%). This has been explained in figure.3.

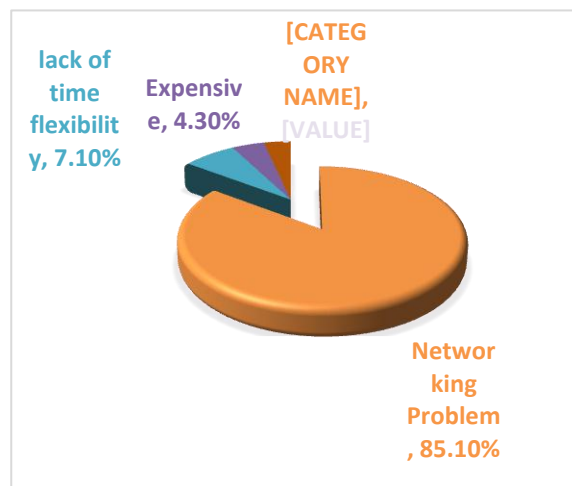


Fig.3: Barriers of using E-Learning platforms

5.6 Time spend for online learning

Out of 396 response, 36.1% of respondents use 4 hours daily for online learning 27.1% of respondents use 2 hours, 21.7% respondents use 6 hours and 15.1% of respondents use less than 2 hours daily for online learning. The detail of it has been presented in figure 4.

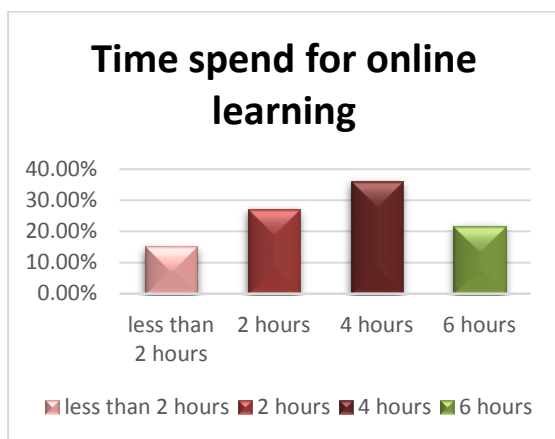


Fig 4: Time spent for online learning

6. Conclusion

E-learning plays an important role in higher education. The findings of this study shows

Reference:

- [1]. Ebner, M., Schön, S., Braun, C., Ebner, M., Grigoriadis, Y., Haas, M., ...&Taraghi, B. (2020). COVID-19 Epidemic as E-Learning Boost? Chronological Development and Effects at an Austrian University against the Background of the Concept of "E-Learning Readiness". *Future Internet*, 12(6), 94.
- [2]. Gonzalez, T., de la Rubia, M. A., Hincz, K. P., Comas-Lopez, M., Subirats, L., Fort, S., & Sacha, G. M. (2020). Influence of COVID-19 confinement on students' performance in higher education. *PLoS one*, 15(10), e0239490.
- [3]. Jha, A. K., & Arora, A. (2020). The neuropsychological impact of E-Learning on children. *Asian journal of psychiatry*, 54, 102306. Advance online publication. <https://doi.org/10.1016/j.ajp.2020.102306>
- [4]. Kumar, S. C. (2019). Awareness, benefits and challenges of E-Learning among the students of Kurukshetra University Kurukshetra: A study. *International Journal of Information Dissemination and Technology*, 8(4), 227-230.
- [5]. Kundu, A., & Dey, K. N. (2018). A Contemporary Study on the Flourishing E-Learning Scenarios in India.
- [6]. Muthuchamy, I. & Thiyagu, K. (2011). *Technology and Teaching: Learning Skills*, Kalpaz Publications: India.
- [7]. Radha, R., Mahalakshmi, K., Sathis Kumar, V., & Saravanakumar, A. R. (2020). E-Learning during lockdown of Covid-19 pandemic: a global perspective. *International journal of control and automation*, 13(4), 1088-1099.
- [8]. Shahzad, A., Hassan, R., Aremu, A. Y., Hussain, A., & Lodhi, R. N. (2020). Effects of COVID-19 in E-Learning on higher education institution students: the group comparison between male and female. *Quality & Quantity*, 1-22.
- [9]. Subedi, S., Nayaju, S., Subedi, S., Shah, S. K., & Shah, J. M. Impact of E-Learning during COVID-19 Pandemic among Nursing Students and Teachers of Nepal. <https://economictimes.indiatimes.com/definition/e-learning>

that most of the respondents are of the opinion that e-learning is useful for higher education and regarding some of the factors that contribute for the importance of e-learning in the field of education are - it can provide a personal learning experience, it helps the users finding their information easily, improve the quality of learning, and it improve efficacy of knowledge. The study shows that most of the respondents suffered from disturbances during online classes because of internet connectivity. The study concludes that e-learning can provide a personal learning experience and is useful for higher education. E-learning helps the users in finding their information easily and there by improve the quality of learning.