

ICT: AN ALTERNATIVE LEARNING TOOL DURING COVID-19 FOR HIGHER EDUCATION STUDENTS

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ABSTRACT

The COVID-19 virus has thrown a new challenge to humanity in past years. The majority of the world's educational institutions went to a halt. ICT was being forced into the spotlight more than ever by this pandemic in order to adapt and support the basic educational demands. In the field of education, institutions were compelled to use technology. The pandemic phase connected the world through ICT and education was not limited to specific locations anymore. The present study was conducted with an aim to assess the knowledge and practices towards COVID-19 and the usage level of ICT while coping up with the pandemic among the students of The Assam Agricultural University, Jorhat, Assam. Purposive sampling and snowball sampling were used to select the samples and the data was collected using Google forms administered through WhatsApp, Messenger and Instagram, considering the COVID-19 protocols. Collected data were then analysed using frequency-percentage, intensity indices, t-test and ANOVA.

Percentage of surfing the WHO website for COVID-19 updates were significantly high. Little more than fifty percent of the students had higher level of knowledge regarding the virus. In terms of practices adapted towards prevention of COVID-19, about fifty percent of students had practices to a great extent. With students opting for more convenient resources, possibility of the getting exposure to misconceptions and rumours is high. The findings of the study revealed that high majority of the students could get access to necessary gadgets, especially smartphones for educational purpose. WhatsApp, Google Meet, M.S. Word, WPS Office, YouTube and Google Classroom were used by the students on a higher scale. As such conducive educational environment needs to be provided to expand the ICT skills and awareness which would help in bringing COVID-19 appropriate behavioural changes among the students.

Keywords: ICT, Knowledge, Practice, COVID-19, Education

INTRODUCTION

The outbreak of COVID-19 posed an extreme challenge to the lives of the people. It rapidly spread worldwide and created massive disaster in terms of health, economic, and social spheres. The education sector was no exception. It abruptly changed the landscape of students, teachers, and every individual involved with it. The system of conventional learning shifted to modern and ICT became the sole medium of information dissemination. With the implementation of lockdown and COVID-19 protocols, the educational activities got limited to distance and online learning. Students and teachers had to adapt to the new yet restricted space and resources for learning. The orb of ICT started getting expanded with the dependence of the people on internet for seeking all kinds of information. Internet was the easiest way of consuming every content and with it came the right and wrong forms of information. COVID-19 is highly infectious, and the most common symptoms are fever, dry cough, nausea, myalgia, and dyspnoea. On March 11, 2020, World Health Organisation declared COVID-19 as global pandemic, and in India the first case was identified in Kerala on 30th January. To minimize the risk of infection, various preventive measures were implemented and nationwide lockdown came to effect from 25th March 2020. Mass media, especially social media became the convenient source of information. With the changing knowledge of the disease, misinformation and fake news started to come up, triggering the fears and anxieties of people towards the virus.

People have increased their use of social media by 87 percent since the lockdown (Anwar and Malik, 2020). With the education community being confined to their homes, students and teachers became heavily dependent on ICT. Apart from using social media such as YouTube, WhatsApp, Facebook, Instagram etc. for communication and information, various ICT tools such as video conferencing, blogs, e-courses, digital library, etc. were used by both students and teachers. WeConference, Google Meet, Zoom, Skype were some common digital applications for attending classes online.

With the broad use of digital media during pandemic, students have explored the globe of ICT for both education as well as for the awareness of the virus. In this process the students have come across various information about the disease, its kind, cause, symptoms, spread and prevention. As such it is necessary to look into how the education community, especially the students are consuming the information and how they are reacting towards it. Therefore a study has been conducted among the students of The Assam Agricultural University, Jorhat, Assam to investigate the knowledge and practices adapted towards COVID-19 among the students and how they are using the ICT tools as an alternate form of learning.

OBJECTIVES

1. To assess the knowledge regarding COVID-19 among selected students in relation to:
 - COVID-19 emergence
 - Spread and Symptoms
 - Treatment and Preventive measures
2. To study the practices towards COVID-19 adapted by the selected students in relation to:
 - Health and hygiene
 - Food habits and daily life
 - Social activities
3. To study the usage of ICT by the students for their academic activities during pandemic.

METHODOLOGY

The population of the study comprised of students studying at the College of Community Science and College of Agriculture of The Assam Agricultural University, Jorhat, Assam, in the year 2020-21. Out of approximately 500 students, 142 students for studying knowledge and practices towards COVID-19 and 150 students for studying usage of ICT were selected as sample using purposive and snowball sampling techniques. A structured web-based questionnaire was designed on Google forms as the research tool. The tool was administered among the students using various social media platforms such as WhatsApp, Messenger and Instagram. Various statistical measures were used to analyse the responses of the study such as frequency-percentage, intensity indices, t-test, and ANOVA.

RESULTS

Profile of the study

In the study conducted percentage of students of College of Agriculture and College of Community Sciences were almost equal. More than fifty percent of the students were female. In The Assam Agricultural University, male population is comparatively less which justifies the result. In terms of educational qualification of the parents, higher level of educational qualification was seen among the fathers' of the students. In the study, high percentage of students belonged from high and middle income group family. The majority of students (61.3%) were ambiverts in terms of personality type, while less than fifteen percent of students identified as introverts and one-fourth as extroverts.

Knowledge Regarding History and Emergence of COVID-19

The questions about the origin and history of COVID-19 could not be satisfactorily answered by any of the students. Although a great majority of students (86.6%) were familiar with the term "19" in COVID-19. The majority of students (78.8%) were aware of the virus incubation period and that DNA is the virus' genetic material. Surprisingly, only one-fourth of the students (25.4%) correctly identified the virus's official name.

Knowledge Regarding Spread and Symptoms of COVID-19

The vast majority of students (95.1%) were aware of the typical COVID-19 symptoms. The majority of students (85.3%) were familiar with the names of COVID-19 positive patients who had no symptoms, and 79.6% were able to

recognise the groups of people who were most likely to contract the disease.

Knowledge Regarding Prevention and Treatment of COVID-19

The majority of students (86.6%) and those who were aware of the term for a clinical study of blood transfusion to treat a critically ill COVID-19 patient, i.e., plasma therapy, were very knowledgeable about these concepts. Only one fifth of the students knew how to effectively get rid of the virus and why washing hands with soap was important. The first-line treatment for Corona virus was only known to 8.5% of pupils.

Significant differences in Knowledge regarding COVID-19

Significant difference was found in the knowledge on COVID-19 among the students in relation to their subject of study. The mean scores indicated that students of College of Agriculture had higher level of knowledge than the students of College of Community Science.

Practices Adapted towards COVID-19 regarding Health and Hygiene

With intensity indices between 2.8 and 2.5, the students' use of face masks while going outside and handkerchiefs or tissues when coughing or sneezing was prevalent (2.8). Similar to how frequently washing or sanitising hands was practised, it was widespread among the kids. Additionally, the students did their best to avoid contacting their eyes, face, or nose with dirty hands and to sanitise commonly touched objects (2.5).

Practices Adapted towards COVID-19 regarding Food habits and Daily Life

Warm water use for drinking and bathing was a common behaviour among students (2.6), with intensity indices of 2.6 to 2.05. A balanced diet (2.3), using herbal and traditional items (2.1), and refraining from eating outside of one's home were practises that were somewhat prevalent. Additionally, pupils were seen to some extent exercising regularly (2.05).

Practices Adapted towards COVID-19 regarding Social Activities

The students shared a lot of reliable information with their friends and relatives (2.6), according to the results, which showed intensity indices ranging from 2.6 to 2.0. Practice of avoiding handshakes and hugs (2.6) and going out when it wasn't necessary was prevalent. In some cases, the students' practise of avoiding public transit (2.4). Additionally, the students looked into and partially used the Aarogya Setu App (2.0).

Usage of ICT by the students

Almost high majority of the students were using ICT devices for their academic work daily. Shifting of conventional to online mode of education during pandemic may be the reason for such higher usage of ICT devices. However, percentage of students using the devices with internet for two to four hours was higher than without internet which clearly justifies how during pandemic the world revolved around internet.

Usage of smartphones among the students was comparatively higher (94%) than laptop and desktop. With a portable device like smartphone, one can easily access any kind of resource and connect to the world in a fraction of second. It is not bounded by time and circumstances because of which the usage was higher compared to desktop, laptop, iPad or tablet. Furthermore, MS-Word, WPS Office and PowerPoint was highly used by the students during pandemic for their academic activities. Such software are easily accessible both in smartphone and computer, and are convenient to use for assignments and presentations.

In terms of communication, the students heavily resorted to the internet, social media, and television to learn about COVID-19. A lesser degree of radiowas utilised for the purpose. Percentage of usage of WhatsApp and Google Classroom was higher among the students. E-mail was mostly used for data transfer among the students. YouTube, Wikipedia, E-books were some online information highly used by the students. Percentage of students using Google Meet for online classes were higher, followed by Zoom and Microsoft Team. Surprisingly, majority of the students were unaware about SWAYAM, e-PG Pathshala, National Digital Library, SWAYAMPBABA and other such online learning platforms.

DISCUSSION

The challenges thrown by the pandemic upon the education system was immeasurable, and to reduce the losses, it transitioned from offline to online mode of learning. The use of information and communication technology (ICT) tools in this situation significantly reduced the students' losses. By providing a variety of channels for Indian students

to complete their education at this challenging time, the Indian government also prioritised e-learning. The students made significant use of the internet and social media. The key information sources for COVID-19 were television and social media, according to Singh, Sewda, and Gupta's study (2020), which supported a similar finding. More people had internet access throughout the outbreak, and during the lockdown, the only informative sources available to them were television and the internet. Therefore, usage was obviously prevalent. The study showed a positive indication where majority of the students appeared to operate ICT tools every day for 2-4 hours with internet and fewer than 2 hours without internet for their academic work, according to the data. There was no significant difference in the usage of ICT among the students in relation to family income which suggests that just like food, clothing and shelter, technology has also become a necessity. Irrespective of high or low family income every student selected in the study has access to some or other kind of ICT tools.

Looking at the comments, it was clear that the vast majority of students had been exposed to a wide and pervasive body of myths and misconceptions regarding the virus. In their study, Kamran A and Naeim M (2020) also supported these conclusions. The study's findings showed that the majority of students knew about COVID-19 on an average level. In terms of its scientific subject matter, students lacked thorough knowledge of the virus. The study by Alqrache, Mostafa, et. al. revealed similar results, with students having a moderate level of awareness on the virus (2020). The results show that there are substantial disparities in the students' levels of COVID-19 knowledge in relation to the subject of study. Similar results were in the study by Hasan, Raigangar, et. al. (2020), which showed a substantial difference in knowledge in relation to study majors and gender. The inclusion of additional material about viruses in the agriculture students' curricula may have increased their understanding, causing them to be more curious and interested in learning about new viruses. It is encouraging to see that almost all of the students are adopting proper practices, but when such routines have to be constantly practised, the students are bound to feel tired and irritated as it is to be followed on a regular basis. The very high majority of students adhered to personal sanitation and hygiene practises to a great extent, demonstrating that the students took the warnings and recommendations of the government and health organisations very seriously. Additionally, students can be concerned about contracting the disease from themselves or from infecting their family members, particularly the elderly. The core of learning is awareness, but when taking into account human qualities, there is a discrepancy in the information transmitted and obtained.

CONCLUSION

ICT as a learning tool is a vast discipline, and ICT as an alternate learning tool during COVID-19 pandemic is a trivial episode. With the students being involved mostly in social media it is suggested that the students must be provided with an encouraging atmosphere of assortment of both conventional and e-learning to expand their awareness and skills. To reduce the challenges, development of ICT infrastructures needs to be considered. In times of pandemic, focus should be given on how the students are using the ICT tools, and comprehend the right kind of information.

RECOMMENDATIONS FOR FURTHER STUDIES

- A similar study can be carried out with the parents and among the students of other universities and colleges in the geographical location.
- A comparative study can be carried out among the health related major students and non- health related major students in the geographical location.
- Other variables like attitude towards ICT, using pattern, ICT exposure, and impact of ICT can be studied with similar research objectives.

REFERENCES

- [1] Abbasi, S., Ayoob, T., Malik, A., & Memon, S. (2020). Perceptions of students regarding E-learning during Covid-19 at a private medical college. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4). <https://doi.org/10.12669/pjms.36.COVID19-S4.2766>
- [2] Ahaskar, A. (2020, August 27). 79% students in India use smartphones for online learning, says report. *Mint*. <https://www.livemint.com/news/india/79-indian-students-rely-on-smartphones-for-online-learning-says-report11598524750207.html>
- [3] Akhil, N. R. (2020, May 6). Assam government's response to COVID-19. *The PRS Blog*. <https://www.prsindia.org/theprsblog/assamgovernment%E2%80%99s-response-covid-19>

- [4] Alqrache A.T., Mostafa M.M., Atta H.M. (2020) Knowledge and attitude towards Covid-19 Among Students Of King Abdulaziz University. *Era's Journal of Medical Research* 2020; 7(1): 1-9. <http://dx.doi.org/10.24041/ejmr2020.4>
- [5] Alzoubi, H., Alnawaiseh, N., Al-Mnayyis, A., Abu- Lubada, M., Aqel, A. & Al-Shagahin, H. COVID-19 - Knowledge, attitude and practice among Medical and Non-Medical University students in Jordan, *Journal of Pure and Applied Microbiology* 2020; 14(1):17-24. <https://doi.org/10.22207/JPAM.14.1.04>
- [6] Assam announces free COVID-19 vaccine to everyone from 18-45 years, places order for 1 crore doses, (2021, April 21). *Times Now News*. <https://www.timesnownews.com/india/article/assam-announces-free-covid-19-vaccine-to-everyone-from-18-45-years-places-order-for-1-crore-doses/747625>
- [7] Dean, B. (2021). Whatsapp 2021 user statistics: How many people use whatsapp? Backlinko. <https://backlinko.com/whatsapp-users>
- [8] Jena, P. K. (2020, August 26). Impact of pandemic COVID-19 on education in India. *International Journal of Current Research*, 12, (07), 12582-12586. <https://doi.org/10.31235/osf.io/2kasu>
- [9] Kapasia, N., Paul, P., Roy, A., Saha, J., Zaveri, A., Mallick, R., Barman, B., Das, P., & Chouhan, P. (2020). Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal, India. *Children and Youth Services Review*. 116. 105194. <https://doi.org/10.1016/j.childyouth.2020.105194>
- [10] Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 pandemic experienced by EFL Learners. *Arab World English Journal*, 11(4)351-362. <https://dx.doi.org/10.24093/awej/vol11no4.23>