

COVID-19 IMPOSED ONLINE LEARNING EXPERIENCE FROM UNDERGRADUATE STUDENT'S PERSPECTIVE

Saira Bartanwala, Vipra Malandkar, Nikita Linar, Kadambari Manjrekar¹ and Urmila Kumavat²

¹Dept of Library and ²Research Laboratory, Dept. Of Botany,
VPM's B.N.Bandodkar College of Science, Jnanadweep, ChendaniBunder Road, Thane, 400601, India

ABSTRACT

COVID-2019 Pandemic situation restricted the mobility of the entire world for a substantial period of time. It severely hampered not only the economy but also education across the globe. All the educational institutes of University of Mumbai plunged towards a novel mode of e-learning which invited new challenges for students. Current research work enquires about the online learning experience of undergraduate students (of VPM's B.N. Bandodkar College of Science, Thane, India) who are undergoing online education during COVID lockdown period. This research paper presents extensive statistical analysis of responses obtained through a well structured online questionnaire. It not only discusses the problems faced by students but also suggests few strategies to meet the requirement of e-education as a whole.

Key words: COVID-2019, Online Learning, Questionnaire

INTRODUCTION

Education is of utmost importance for the strong build-up of any nation. The young generation gains stability in their social and personal life through education. An efficient education system can lay the foundation of good progress. Recent COVID-19 crisis has undoubtedly caused pressure on maintaining order in society. Social distancing necessities have been imposed for health purposes at the cost of the traditional system of education in many parts of the world. Consequently e-learning has been adopted as an alternative method. According to Zhang, *et.al.*2004, E-learning is the technology-based learning in which learning materials are delivered electronically to remote learners via a computer network.

Currently Indian Universities are engaging the students with e-learning methods. Chairman of University Grant Commission (UGC) told the news agency ANI that 'We are seeing at this time of COVID-19 and even later when all of this (is) over, to give a push to online education (Menon, 2020). The transition to virtual modes was relatively less difficult for those institutions that had, even prior to the lockdown, adopted learning management system platforms like Blackboard or Moodle (Menon, 2020). However in the remaining institutes, the accessibility for

each individual towards online education has remained uncertain. Though some families may have access to digital technology, there might not be enough devices for the personal use of all the family members (Agarwal, 2020, Pednekar, 2020). Lack of gadgets, inconsistent internet access, cost factor, etc. involved in online classes are viable issues related to this method. There is a need to understand this whole concept from the student's point of view, if the learning side of an online matrix is really getting justice or not.

Undoubtedly, the online version has its own advantages such as resolved travelling issues, reduced time and effort to reach institutes and quick access to multiple e-resources, etc. It will be more confirmatory if students themselves can express their views about such aspects of online learning. Therefore the present study involved an extensive survey about e-learning experience of second year and third year undergraduate students of VPM's B.N. Bandodkar College of Science, Thane (BNB). This survey aimed to understand feasibility of online learning as well as to appreciate the new version that can still be continued in the after effects.

MATERIAL AND METHOD

The survey was planned in COVID-19 pandemic situation in July 2020. The well structured questionnaire was developed by the end of August 2020. The actual survey was conducted from 5th to 19th September 2020. The survey was carried out on the total 834 admitted students who had already attended online lectures for more than a month.

The entire questionnaire was based on pros and cons of online learning. It was in the form of 'Google Form' as this survey was decided to execute through online mode. The 'Google Form' had sections like personal information, availability of basic infrastructure, technical and learning difficulties in online learning and choice of study material. All questions were in MCQ (Multiple Choice Question) format, encompassing all possible answer/s as option/s. It was framed in such a way that it will uncover the challenges, issues and opportunities for BNB students with respect to online learning during the COVID-19 lockdown period. The collected data of BNB students was further subjected to validation and thorough statistical analysis. The obtained results are expressed in the form of percent values. These values are depicted in the form of (Fig. 1 and 2; Tables 1 and 2) (Kothari, 2002, Pozgaj and Knezevic, 2007).

RESULTS AND DISCUSSION

The survey regarding online learning experience of BNB students received a substantial response from 417 undergraduates out of total 834 students. It included 52% S.Y.B.Sc. and 48% T.Y.B.Sc responses which were obtained from students of non IT (Information Technology) background. Female candidates were found to be more 64.7% in comparison with male candidates with 34.8%. Remaining students 0.5% preferred not to specify their gender.

An analysis of questions related to basic technical infrastructure (Fig. 1) revealed that more than 90% BNB students rely on mobiles for e-learning while very few students have facility of laptops and personal computers. About 40% students do not avail facility of separate gadgets as they need to share their devices with family members. Internet access is mainly through mobile data packs rather than Wi-Fi, router and cable internet modes. Approximately 35% BNB students are aware about the amount of data packs required for attending 3-4 lectures per day. A rough estimate expressed by students was 500 Mb to 1Gb data pack per day is required to achieve online learning with other educational activities.

From Fig.1 and Table 1, it is clear that a considerable population of BNB students do not have the facility of undisturbed study area and basic furniture to attend online learning classes efficiently with the correct body posture. Nearly 50% Students are struggling with issues related to interrupted internet connectivity, discontinuous power supply, limited data pack, disturbance caused by household activities and lack of a proper learning environment at home.

Around 77.5% of BNB students attend lectures through 'Google Meet' application by following basic netiquettes. Roughly 35% students expressed that online lectures are quite engaging but remaining all students did not find comfortable in online sessions due to a variety of reasons such as deviation due to notifications of mobiles apps, disturbing household activities, lack of concentration, self casual approach due to availability of recorded lectures, etc.

Table 2 indicated a significant observation that BNB students are finding it difficult to solve doubts by posting messages in chat boxes and by asking teachers directly in online meetings. Many of them are not getting enough time to grasp the concept in short time through online mode. This may be due to inability to cope up with technological advancements as well as new learning systems. Many students reported that they had never used online learning resources (prior to COVID crisis) for any curricular (46%), co-curricular (47%), extracurricular (53.2%),

hobbies (28.5) and financial investment (58.8%) activities. However according to Fig. 2, they indicated a very high preference for the study material which is shared on screen during lectures and study materials of Google Classroom over the study material which is made available on WhatsApp, email or Google drive and institutional repository. They appreciated the mode of teaching which is carried out with conversation supported by powerpoint presentations and YouTube Videos. Nearly 11% students strongly agreed that online learning is better than traditional one while 18% students clearly selected traditional or offline mode of learning.

CONCLUSION

Online education is a pertinent learning method adopted by University Grant Commission (UGC) in the unpredictable situation of COVID-19 crisis. E-learning certainly cannot be a perfect replacement for offline learning (Welsh, *et.al* 2003). It has definitely invited critical challenges for various colleges which were used to impart offline education prior to COVID lockdown. The current project revealed the diverse issues faced by the BNB students in the online education process. Apart from basic infrastructure related problems, a few issues can be resolved by students themselves as e-learning demands maturity and self discipline at student end (Zhang, 2004). At the same time this statistical analysis would be of immense help to all teaching fraternity to transform their topic delivery in an efficient way. Teachers can frame the topic in a highly structured way using multiple engaging pedagogical tools. They should allow sufficient time for conceptual understanding about the topic and should take account of all doubts by frequent questioning during online sessions. Thus complementary interaction of students and teachers can serve the purpose of online education and can meet the common goal of enrichment of knowledge.

ACKNOWLEDGEMENT

The authors are thankful to Principal of VPM's B.N. Bandodkar College of Science, Thane for supporting this research activity and for motivating research students and guiding teachers. Also thanks to all the respondents who have attempted this survey and spend their valuable time for their response.

Table 1: Level of technical difficulties faced by students for attending online lectures

Sr. No.	Parameter	No. of Students (in %) with level of difficulty				
		Mostly	Sometimes	Rarely	Very Rarely	Never
1	Inability to join online lecture due to remote place	7.7	23	16.3	24.7	28.3
2	Troubles in adjusting with new learning system	10.3	35	21.1	15.6	18
3	Lack of availability of advance gadget to fulfil all requirements	13.7	20.6	23.5	11.5	30.7
4	Sharing of same devices with family members	21.8	17.7	15.3	9.8	35.3
5	Power supply problems	14.1	33.8	17.5	15.1	19.4
6	Discontinuous internet connectivity	19.4	42	14.9	15.6	8.2
7	Inability to purchase good internet service	18	18.7	16.5	17	29.7
8	Limited data pack of mobile for online lectures	35.5	18.2	13.9	11	21.3
9	Lack of furniture to get correct posture for study	19.4	17.5	16.8	12	34.3
10	Separate study area	21.3	14.4	15.3	11.3	37.6
11	Disturbance due household activities during online lecture	28.8	24	14.9	13.9	18.5
12	Lack of appropriate learning environment at home	22.5	22.5	16.1	13.7	25.2
13	Financial in-affordability of online lectures	8.6	15.1	21.1	12.5	42.7

Table 2: Level of technical difficulties which were faced by students during online learning

Sr. No.	Parameter	No. of Students (in %) with level of difficulty				
		Mostly	Sometimes	Rarely	Very Rarely	Never
1	Suitability of online lecture timing	25.4	33.3	14.9	9.6	16.8
2	Opportunity to solve doubts by posting message during lecture	24.9	32.1	18.9	9.6	14.4
3	Opportunity to solve doubts by asking directly during lecture	27.8	29.5	14.9	10.8	17
4	Availability of enough time for understanding of topic & clarifying doubts	26.1	32.1	18	10.8	12.9
5	Inability to understand drawing skills of a diagram	12.7	31.4	20.9	13.7	21.3
6	Inability to understand steps in mathematical calculation	12.9	28.8	18.7	13.9	25.7
7	Inability to write chemical structures using PPT	12.2	23.5	16.1	12	36.2
8	Uneasiness to use soft copy of notes for studies	24.5	26.4	18.7	12	18.5
9	Discomfort to cope up with speed of online session	16.5	30.5	22.5	10.6	19.9

Fig 1: Availability of Technical infrastructure at students for e-learning

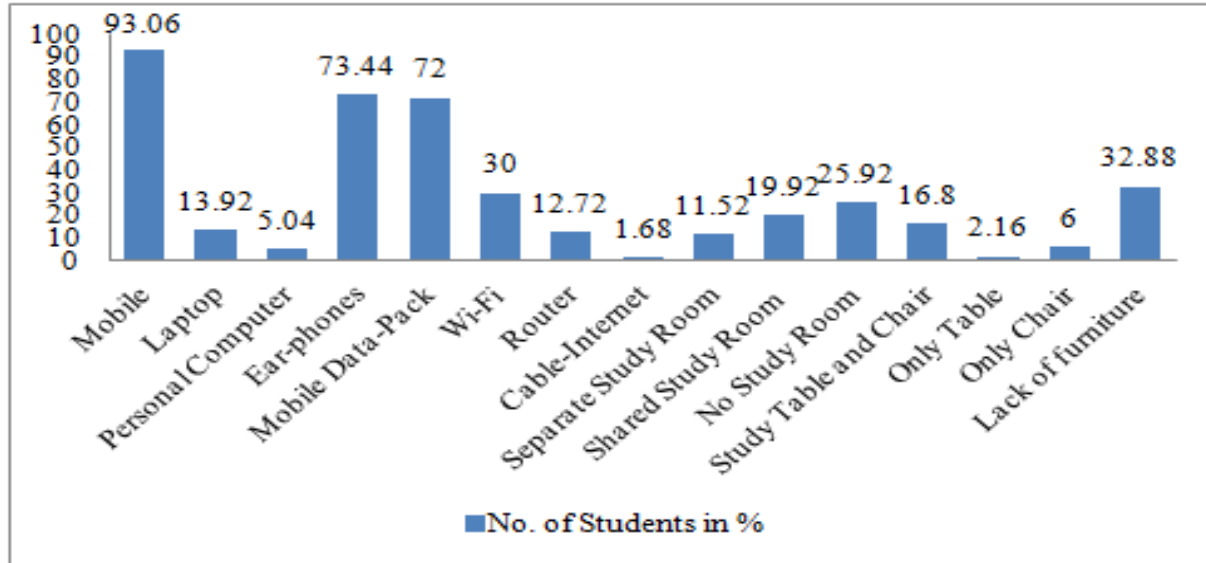
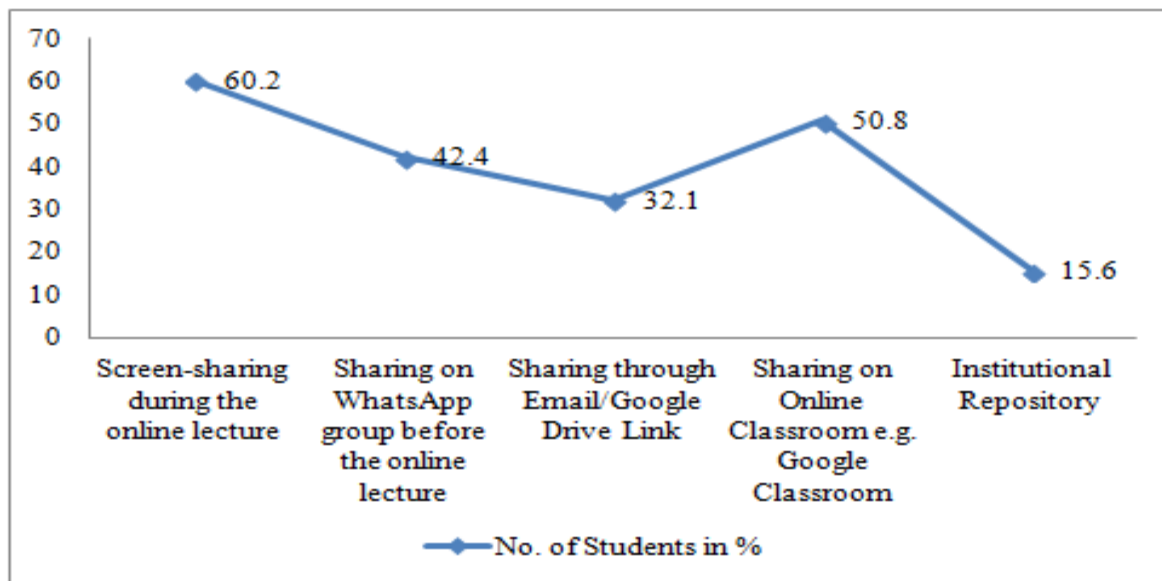


Fig 2: Study Material Preference by BNB Students



REFERENCES

Agarwal, R. (2020, May 16). Online learning: The medium of tomorrow. The Hindu. 2020, October 05. (<https://www.thehindu.com/education/online-learning-the-medium-of-tomorrow/article31602387.ece/amp/>)

Kothari, C.R. (2002). Research Methodology (2nd ed.), New Delhi: WishwaPrakashan, Pg. 117-150.

Menon, S. (2020, April 30). Limitations of Online Learning. The Hindu. 2020, October 02. (<https://www.thehindu.com/opinion/op-ed/limitations-of-online-learning/article31466511.ece/amp/>)

Pednekar, P. (2020, June 26). Can online learning replace the school classroom? The Hindu. 2020, October 02. (<https://www.thehindu.com/opinion/op-ed/can-online-learning-replace-the-school-classroom/article31917964.ece/amp/>)

Pozgaj, Z. and Knezevic, B. (2007). E-learning: Survey on Student's Opinion. Proceedings of the ITI 2007, 29th International Conference on Information Technology Interfaces, June 25-28, 2007, Cavtat, Croatia.

Welsh, E., Wanberg, C.R., Brown, K.G. and Simmering, M.J. (2003). E-learning: Emerging uses, empirical results and future directions. *International Journal of training and development*, 7(4): pg 245-258.

Zhang, D., Zhao, L., Zhou, L. and Nanumaker, J. (2004). Can E-learning replace classroom learning? *Communication Of The ACM*, 47(05): pg. 75-79.