



KNOWLEDGE OF TECHNOLOGY AMONGST MBBS STUDENTS AND THEIR VERBATIM OPINIONS REGARDING TRADITIONAL AND ONLINE TEACHING - A WEB BASED STUDY IN THE TIMES OF CORONA PANDEMIC

Dr. Ranu Rawat*

Associate Professor, Deptt. Of Community Medicine, Adesh Medical College and Hospital, Shahabad, Kurukshetra, Haryana.*Corresponding Author

ABSTRACT

Background: In the times of the recent corona pandemic, teachers in general and medical teachers in particular have had to resort to online teaching methods in order to complete the colossal medical syllabus in time. This has brought to the forefront the contentious issue of the supremacy of traditional versus online teaching methods. **Objectives:** To assess the knowledge of technology and its use amongst MBBS students and to find out the verbatim opinions of the students regarding the one biggest advantage of traditional and online teaching. **Methods:** A web based cross sectional study was conducted amongst 3rd year MBBS students of AMCH, Shahabad by using a self designed semi structured questionnaire. **Results:** A majority of students reported to have good knowledge of technology (45.8%), studied computers in school for > 5 years (72.5%), have not previously been exposed to online teaching (59.2%), regularly use technology for non-academic purposes (87.3%) and wholeheartedly support the use of technology in medical education (52.1%). An analysis of verbatim responses revealed that students felt both of the method had their own unique advantage and no student wrote in disfavor of either method. **Conclusion:** It is important to step up the provision of technology knowledge during school days for the students so that they are well aware of online methods of learning. Blended teaching using both the methods should be incorporated during school times as well as MBBS to maximize student learning.

KEYWORDS : Technology, Blended teaching, Web based learning

INTRODUCTION:

The recent unprecedented times of corona pandemic have witnessed a surge in online teaching methods adopted by the entire teaching fraternity. Country wide lockdown and other stringent government rules banning people to people contact made it impossible for the teachers and their students to step out of their homes. Herein the online teaching-learning methods came to the rescue of both the teachers and their taught. Online learning, also called internet-based learning or web-based learning, does not have the time and space limitations, and therefore, makes teaching and learning separable via internet-based information delivery systems.¹ This is in stark contrast to traditional classroom teaching which requires that teaching and learning should take place at the same time and place. This method entirely represented teaching in the pre-internet era. With the increasing use of technology in education however, online learning has become a common teaching method.¹

AIMS AND OBJECTIVES :

1. To assess the knowledge of technology and its use amongst MBBS students.
2. To find out the verbatim opinions of the students regarding the one biggest advantage of traditional and online teaching.

MATERIAL AND METHODS:

Study Design: Web based Cross sectional study

Study Setting: The study was conducted amongst 3rd year MBBS students of Adesh Medical College and Hospital, Shahabad (M), Kurukshetra

Study Subjects: Students of MBBS 2017 Batch

Study Period: The data for this study was collected in June-July 2020

Sample Size: 142 MBBS students of 2017 Batch

Sampling Technique: Convenience Sampling

Data Collection Tools: A self designed semi structured questionnaire.

METHODOLOGY:

The MBBS 2017 batch students were invited to take part in the study. Out of 150 students, 142 participated in the study. Google docs was utilized to administer the questionnaire and collect data electronically. The questionnaire elicited some general information and information regarding knowledge of

technology and its use amongst the MBBS students. The responses of these questions were structured and designed as per the questions. The students were also asked to write their opinions regarding what they considered as the one biggest advantage of both traditional and online teaching learning method.

Following data collection, data was analyzed by using SPSS version 21. Descriptive Statistics were calculated for knowledge and use of technology. Percentages and number of participants were presented for categorical variables. The responses of the students for what they considered as the biggest advantage of the two teaching methods was recorded verbatim.

RESULTS:

Table 1: Knowledge of technology and its use amongst study participants

Variables	Number	%
My knowledge of computers and technology is:		
Poor	4	2.8
Average	36	25.4
Good	65	45.8
Very Good	37	26.1
I have studied computers in school for:		
> 5 years	103	72.5
≤ 5 years	23	16.2
Not studied in school but learnt on my own/elsewhere	10	7.0
Not studied computers at all	6	4.2
I have previously been exposed to online academic teaching-learning		
No	84	59.2
Yes	58	40.8
I regularly use technology for purposes other than academics		
No	18	12.7
Yes	124	87.3
I wholeheartedly support the use of technology in medical education		
Doubtful	39	27.5
No	29	20.4
Yes	74	52.1

Table 1 shows that a majority of students reported to have good knowledge of computers and technology (45.8%), had studied computers in school for > 5 years (72.5%), have not previously been exposed to online academic teaching-learning (59.2%), admitted to regularly using technology for purposes other than academics (87.3%) and wholeheartedly supported the use of technology in medical education (52.1%).

Table 2: Students' " verbatim" responses for biggest advantage of traditional and online Teaching Learning

Question	"Verbatim" responses of the students
What according to you is the biggest advantage of traditional classroom T/L method?	" Provides an ideal environment for studying" " Capable of holding attention coupled with minimal distractions" " No internet connectivity issues" " Direct Teacher's supervision possible" " Provides for sitting with classmates and clearing doubts on the spot" " In person, better face to face interaction with the teacher possible" " More disciplined method of learning" " Provides for development of communication skills of the students" " Builds more confidence in the students" " Binds the student to sit and learn"
What according to you is the biggest advantage of online T/L method?	" Extremely convenient" " Very useful in unforeseen disastrous situations like that at present" " Asynchronicity possible which allows students to access recorded classes whenever feasible for them." " Provides for learning in comfort zone of students" " Can watch the teacher's recorded lecture multiple times" "Students can learn at their own, individual pace" " You tube links etc provided by the teachers alongwith their lecture greatly amplifies the learning for students" " Equally and easily accessible to all the students uniformly" "Only way which provides for distance learning" " Not boring, less tiring, cost-effective" " No travelling required to attend class, so saves time, energy and money" "Provides for much better visualization of pictures and images of the lectures because of proximity to the viewer" Provides for " Anytime, anywhere learning"

Table 2 provides insight into the perception of students for both types of class formats, traditional and online. The frequently recurring comments have been recorded in the table.

DISCUSSION:

In our study, a total of 71.9% students reported to have good (45.8%) and very good (26.1%) knowledge of computers. In a similar study by Bagle et al (2016) ², a total of 81.6% medical students felt confident (49.6 %) and able to cope (32.00 %) while using computers. In our study a total of 88.7% students had learnt computers while in school while in a study by Bagle et al (2016) ² and Ranasinghe et al (2012) ³ only 18% and 38% respectively had studied it in school. In our study, 7% of students had learnt computers on their own or elsewhere while in a study by Bagle et al (2016) ² and Ranasinghe et al. (2012) ³ this figure was 79.6% and 60% respectively.

In our study, a majority of students (87.3%) reported to regularly using technology for purposes other than academics. This is similar to the findings of Al- Hariri et al (2017) ⁴ and Ranasinghe et al (2012) ³ who in their respective studies found that the majority of participants used the electronic devices frequently and for relatively simple tasks.

In our study, a majority of students (52.1%) have expressed that they wholeheartedly support the use of technology in medical education. This is similar to the findings of Al- Hariri et al (2017) ⁴ who found that the majority of health care students are favourably disposed to the use of electronic devices in the teaching and learning process.

In our study, when asked about the one big advantage of both the methods, all the students, in their verbatim responses, responded positively for both the methods and none decried either of the methods. As per the study done by Chauhan et al (2019) ⁵, even though students perceived both methods as equivalent, the experience was slightly skewed in preference for the lecture method as against online learning method. Other studies too have found that in traditional teaching the content delivery, expert facilitation, and face-to-face interaction with the teacher is considered advantageous by the students.^(6,7) Young et al (1997)⁸ also contend that the supportive learning environment in face-to-face interactions affects the psyche in a positive manner. However, it has been reported that the flexibility inherent in asynchronous online learning yields higher satisfaction rates among learners.⁹

CONCLUSION:

More emphasis needs to be placed on increasing technological knowledge of students so as to make them more conversant with its application. Blended teaching, involving both traditional and online methods, could be resorted to even during the school days of students. This would pave the way for its successful acceptance in higher education.

REFERENCES

1. Leisi Pei & Hongbin Wu. Does online learning work better than offline learning in undergraduate medical education? A systematic review and meta-analysis. *Medical Education Online* 2019; 24(1) :1-13.
2. Bagle Tushar, Kadam Swapnali, Baviskar Pooja. Computer and internet use among undergraduate medical students. *International Journal of Contemporary Medical Research* 2016; 3(5):1317-1321.
3. Ranasinghe et al.: Computer literacy among first year medical students in a developing country: A cross sectional study. *BMC Research Notes* 2012;5:504.
4. Al-Hariri MT, Al-Hattami AA. Impact of students' use of technology on their learning achievements in physiology courses at the University of Dammam. *J Taibah Univ Med Sc* 2017; 12(1):82e85.
5. Chauhan VD, Kalra J, Kalra V, Negi G, Agarwal P. Asynchronous versus traditional teaching for MBBS undergraduate students-effectiveness and students perspectives - A pilot study. *Int J App Basic Med Res* 2019;9:69-72.
6. Smith SF, Roberts NJ, Partridge MR. Comparison of a web based package with tutor based methods of teaching respiratory medicine: Subjective and objective evaluations. *BMC Med Educ* 2007;7:41.
7. Chenkin J, Lee S, Huynh T, Bandiera G. Procedures can be learned on the web: A randomized study of ultrasound guided vascular access training. *Acad Emerg Med* 2008;15:949-54.
8. Young JR. Rethinking the role of the professor in an age of high tech tools. *Chronicle Higher Educ* 1997;44:26-8.
9. Arkorful V, Abaidoo N. The role of e learning, the advantages and disadvantages of its adoption in higher education. *Int J Educ Res* 2014;2:397-410