

Experience of E. learning among the students of KMSMC Sialkot Conducted during Covid-19 Pandemic

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ABSTRACT

Aim: To assess the experience of E-Learning among the students of KMSMC during Covid.19 pandemic

Study design: Cross- sectional observational study

Place and duration of study: Physiology Dept. Kh. M. Safdar Medical College Sialkot at the end of session in October 2020.

Methodology: A self-generated questionnaire was designed based on the Likert scale and distributed online among Khawaja Muhammad Safdar medical college Sialkot students. The study included the students from all five academic years, from first year to final year.

Results: Among 500 students, 244 students participated. Based on data, participation from first year was 82%, 65% from second year, 49% from third year, only 17% from the fourth year and 39% from final year submitted the questionnaire. The overall score of individual class response was between 41 and 60, showing that they were satisfied with their E-Learning.

Conclusion; Overall E-learning experience was good with one common problem of poor network connectivity.

Keywords: E learning, Covid-19, E learning features. Tools for E. learning.

INTRODUCTION

E-Learning has evolved as a saviour substitute for traditional learning methods at the time of the Covid-19 Pandemic that has caused tremendous damage from health, food, and economy to social interactions, including the conventional educational system. It is a process of utilizing electronic technologies to access the academic curriculum outside of a traditional classroom. Face to face teaching and learning that had been the norm of almost all the educational institutes have flipped to digitalized teaching and learning that is part of virtual communication between teachers and learners.

E-learning has become the mandatory component of all educational institutions like schools, colleges, and universities worldwide. This learning system is based on formalized teaching that utilizes electronic resources¹, and students work on their own at home. They communicate with teachers and other students via e-mail, electronic forum, videoconferencing, chat rooms, WhatsApp and other computer-based communication software. This digitalized system ensures easy manipulation of contents, availability of information, offers the possibility of real-time update and exchange etc. According to Chang ², e-learning is an umbrella concept that comprises almost anything related to learning combined with information and communication technology. E-learning is quite simple to understand and implement. The use of a desktop, laptop, or smartphones and the internet forms a significant component of this learning methodology.

The World Health Organization (WHO) has declared the coronavirus disease 2019 (COVID-19) a pandemic³. (Occurring over a wide geographic area and affecting an exceptionally high proportion of the population). The virus that causes COVID-19 is in a family of viruses called Coronaviridae causing illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and, Severe Acute Respiratory Syndrome (SARS) The virus is referred to as SARS-CoV-2 and the associated condition is COVID-19. Typically Coronaviruses present with respiratory symptoms, including Fever, Cough, Breathing difficulties, Fatigue, Sore throat, pneumonia even septic shock⁴.

Evidence is still emerging, but current information is indicating that human-to-human transmission is occurring. The transmission routes of COVID-19 remains unclear at present, still evidence from other coronaviruses and respiratory diseases indicates that the disease may spread through large respiratory droplets and direct or indirect contact with infected secretions. In Pakistan, the first case reported on February 26, 2020⁵. Active cases to-date are 45,324, deaths 8,547 and confirmed cases 426,142, recoveries 37,227⁶.

The disastrous COVID-19 Pandemic has its footprints on education as well. The outbreak of this dangerous virus has forced educational institutions closure to control the spread of this virus. Medical education has also suffered a lot during this time due to disease control strategies and stress on both students and teachers. Covid-19 compelled academic experts to reconsider the traditional way of face to face learning. They started considering distance learning as a feasible option to fill the classroom gap for three to

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four months, thus reducing the risk of infection for students before conventional activities are resumed (Kaur, 2020) ⁷.

SUBJECTS & METHODS

Physiology dept conducted this study in Khawaja Muhammad Safdar Medical College Sialkot at the end of the academic session in September 2020. The study included all the students of KMS.MC. Ethical review committee approved the study. A self-developed questionnaire consisting of 16 questions was sent to the students online after testing its reliability by Cronbach Alpha test (Table 1). Likert Scale scoring was used to assess the respondents response (1=Strongly disagree, 5=Strongly agree). Overall response rate was 48% as 244 out of 500 students have submitted their response. Internet connectivity issue may be the reason of lower response.

Out of 244 First-year n=82 students, 2ndyr n=65, 3rdyr=49, 4thyr n=17, and finalyear n= 31 students participated. The collected data were evaluated statistically by using SPSS (26) version. Mean scores and standard deviation were calculated for each item response received from students of each year (Table 2). Highest cumulative score could reach 80 (maximum score for each question was five and total questions included were 16). We interpreted the scores based on students experience from 16-80 (Table 3). Scores of individual years with mean, percentage and remarks are shown below (Table 4).

Each class's score and cumulative mean score for all classes were between 41 and 60, indicating that they had overall good experience about e-learning during the covid-19 Pandemic.

Table 1.

No.	Item	1 st Year n=82 mean±S.D	2 nd Year n=65 mean±S.D	3 rd Year n=49 mean±S.D	4 th Year n=17 mean±S.D	Final Year n=31 mean±S.D
01	You have enjoyed attending the online lectures daily since June 01,2020	3.21±1.01	3.20±1.14	3.06±1.03	2.94±.97	2.90±1.08
02	Laptop is a better device for online classes as compared to mobile	3.84±1.01	3.65±.99	3.41±1.33	3.65±.79	3.42±1.26
03	You faced no problem in connectivity during online learning	2.49±1.27	2.35±1.23	2.53±1.27	2.41±1.28	2.00±1.1
04	Zoom is a better application for online learning as compared to google classroom	3.93±.90	3.52±q.032	3.71±1.08	3.65±.87	3.65±.96
05	Your instructor has been successful in engaging you during his/her class	3.71±.98	3.51±.94	3.37±1.15	3.47±1.0	2.87±1.2
06	Your instructor is always fully prepared for the lecture	4.17±.86	4.20±.76	3.86±1.17	4.18±.53	4.06±.73
07	Your instructor enhanced your understanding of the topic with animations, graphs, diagrams.	4.00±.77	3.82±.94	3.63±1.03	3.82±.96	3.58±.96
08	Your instructor provided you feedback on your assignments	3.40±.97	3.00±1.21	3.16±1.14	3.18±1.01	3.19±.95
09	The online lectures delivered to you are interactive	3.34±.92	3.35±.91	2.96±1.04	2.71±1.1	2.84±1.1
10	MCQs are a better online assessment tool as compared to Viva-Voce.	3.23±1.44	3.09±1.35	3.27±1.28	2.94±1.2	3.19±1.4
11	E. learning is a way of distribution of notes to the students over the internet.	3.55±1.0	3.18±1.04	3.65±.91	3.47±.95	3.39±.92
12	Enhancing your computer skills will improve your understanding of the online lectures	3.56±1.12	3.48±.94	3.39±1.05	3.06±1.34	3.06±1.23
13	Your institution provides you strategy and support for your online learning	3.20±1.02	3.02±1.15	2.98±1.1	3.00±1.0	2.81±1.2
14	E. learning is a source of enhancing your learning abilities.	3.22±1.03	3.29±.99	3.27±1.06	3.29±.85	2.97±1.22
15	Your teacher always provides you with a schedule of online lectures in advance.	3.76±1.07	3.62±1.01	3.80±1.1	3.59±1.07	3.61±1.09
16	Based on your experience, you would prefer online over traditional classroom teaching in the future.	2.23±1.43	2.22±1.34	2.39±1.4	2.12±1.5	1.90±1.27

Table 2:

Reliability statistics	
Cronbach's Alpha	No. of Items
.83	16

Table 3

Total Score	Interpretation
16	Very poor experience
17-32	Poor experience
33-48	Neutral
49-64	Good experience
65-80	Excellent experience

Table 4

	1 st Year(n=82)	2 nd Year(n=65)	3 rd Year(n=49)	4 th Year(n=17)	Final Year(n=31)
Total mean scores (80)	54.83	52.49	52.43	51.47	49.45
Scores percentage	69%	66%	66%	65%	62%
Overall experience	Good	Good	Good	Good	Good

DISCUSSION

We conducted the study in Khawaja Mohammad Safdar Medical College Sialkot to check the student's experience regarding the online classes in the wake of Covid-19 restrictions that the government enforced. Students were given a questionnaire to know about their experience about e-learning. Most of the students did enjoy learning through the online classes. This is consistent with a study done by Jorge G et al⁸ showing that students enjoyed e. learning as it proved helpful in safeguarding students' health during this covid-19 pandemic.

The students of all the sessions, primarily first-year and 2nd year were quite satisfied that the instructors were fully prepared for the lectures and were punctual according to the schedules they provided to students. The online sessions were engaging and interactive between the instructors and the students. The instructors made it sure to enhance the students' understanding of the topic using the proper graphical and animated diagrams. Students agreed on this also that the instructors provided their feedback on the assignments completed by the students.

Most of the students believed that a laptop is the better gadget to use than mobile phones since the laptop provides full support and options while the mobile has its limitation. The application for online classes and zoom software was preferred than other applications, especially over google classrooms. There were mixed reviews for preference regarding assessment of students between MCQs and Viva-voce. Around 70% of students believed that E-learning is a way of distributing notes to the students over the internet.

Most of the students showed concerns about network connectivity issues that disturbed the classes leading cause of dissatisfaction regarding e-learning among the students. In addition to poor connectivity, some of the students (fourth year & final year) had reservations about institute strategy about network connections and other support. The remaining 65% of the students maintained that the institute provided system and support for the classes. Majority students agreed that by enhancing the computer skills, they could improve the understanding of the online lectures. The students mainly reject future online classes because of the one common issue mostly faced: poor network connectivity. Otherwise there is no harm in continuing online classes. These results are consistent with the data from the study conducted in NUST (National university of science and technology Pakistan) by Adnan M., & Kinaat Anwar⁹. They studied that students have faced difficulty in internet access, especially, from Fata, Balochistan, Chitral and Gilgit Baltistan. Also, the students rejected the further online classes because of this issue.

Contrary to our study Gibbon and fairweather¹⁰ studied the comparison between computer-based learning with traditional methods showed that computer-based instructions learned more efficiently and demonstrated better results. Further Deodatt M. Suryawanshi¹¹ studied in

India to show 85% students preferred e-learning on conventional method.

As for the final year students, the trends seem to be different. They seem not to be fond of the online classes since they also faced network connectivity issues, but they had additional concerns. It is always highly recommended to visit the hospital's wards that were not possible in the disastrous Pandemic in the final year. Due to this gap in their learning by practical exposure, they found themselves just restraint to graphical and animated videos using the online sessions that the students do not prefer since they require proper practical exposure and clinical wards visit.

CONCLUSION

Covid-19 Pandemic caused the global lockdown of institutions that resulted in a massive decline in students' productivity, social life, and learning. Due to this, traditional classes got converted into online classes. E-learning was a good experience by the students, but many of them faced few problems, mainly the poor network connectivity.

Recommendations;

In this global disaster e. Learning can be an acceptable learning method but with better internet speed advancements, using proper gadgets like laptops and smart mobiles. Institutes should provide a strategy regarding internet facility to the students. Clinical wards have no substitute that can be an eye-opener for institute administrators and instructors to take further actions.

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