

Exploring the Educational Environment in an Online Certificate Program

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ABSTRACT

Objective: To explore the perceptions of postgraduate students regarding the e-learning educational environment of Certificate in Health Professions Education (CHPE).

Methodology: This descriptive cross-sectional study was carried out at the University College of Medicine & Dentistry, Lahore. A total of 250 students were included in this study. Out of 250 students, 209 students filled out the questionnaire. Non-randomized purposive sampling was used. A pre-validated 'e-learning educational atmosphere measure' (EEAM) questionnaire was used. A Google form link for the questionnaire was shared in the WhatsApp groups of CHPE students. Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 23.

Results: Out of 209 participants, 88(42.1%) were males and 121(57.9%) were females. The results indicated positive perceptions across various factors assessed by the EEAM questionnaire. The majority of the participants (86.2%) found the programme effective and 84.8% were satisfied with the teaching quality. Students responded positively to the questions regarding ethics & professionalism (88.1%), learner support (64.1%), and safety & convenience (82.7%).

Conclusion: Students have positive perceptions regarding programme effectiveness, teaching quality, ethics & professionalism, learner support, and safety & convenience. Furthermore, the EEAM is a comprehensive tool that captures various aspects of the e-learning environment and provides a holistic view of the educational atmosphere.

Keywords: Online learning, COVID-19, Students.

INTRODUCTION

Online learning has drawn a lot of attention, especially in computer-assisted learning, where learning materials are digitally transmitted through various software and learning management systems (LMS).¹ Because of the flexibility offered by e-learning, students can attend classes at their convenience, regardless of their location.² Moreover, it has been recognized for its potential to foster creativity, critical thinking, and independence among higher education students.^{2,3} E-learning also facilitates effective communication between teachers and students, as well as among students, encouraging open sharing of ideas without fear of judgement.⁴

Given the documented benefits of e-learning in various contexts, the University College of Medicine & Dentistry decided to shift its Certificate in Health Professions Education program online in 2020 due to the impact of the COVID-19 pandemic.⁵ Moodle, a learning management system, was used to organize study materials as part of the e-learning implementation for CHPE. Additionally, WhatsApp

groups were created to facilitate better communication. Zoom video communication was used for online classes. The evaluation of virtual learning environments has also been a subject of interest. Al-Fraihat et al. examined the virtual learning environments of Jordanian universities in 2020 using an extended Technology Acceptance Model. Their study identified the factors influencing student satisfaction and highlighted the significance of user experience and technology acceptance in creating successful e-learning environments.⁶ However, it is important to note that e-learning in Pakistan is still an evolving area of education, requiring a distinct approach and skill set to ensure success.⁷

Recognizing that students are the primary consumers of education, understanding their perceptions of the e-learning educational atmosphere becomes crucial. Such feedback can enable program developers and facilitators to enhance the quality of e-learning programs. This study aimed to explore the perceptions of postgraduate students regarding the e-learning educational environment of CHPE, shedding light on their experiences, satisfaction, and areas of improvement. The current study was focused on the essential aspects relevant to understanding the significance of exploring students' perceptions in the context of e-learning.

METHODOLOGY

This study was carried out at the University College of Medicine & Dentistry, Lahore. It was a descriptive

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cross-sectional study in which non-randomized purposive sampling was done. The study was conducted from February to April 2023. The study was approved by the ethical committee of the institution. Informed written consent was taken from all participants. A pre-validated EEAM questionnaire was distributed to the students of the certificate in health professions education. A total of 250 students were included in this study. Out of 250 students, 209 students filled out the questionnaire. The purpose of the study was explained to the students. A Google form link for the questionnaire was shared in the WhatsApp groups. The questionnaire is comprised of items that assess five key factors: programme effectiveness, teaching quality, ethics & professionalism, learner support, and safety & convenience. Responses of students were calculated using the Likert scale, 1 & 2 were taken as agree, 3 was considered neutral, and 4 & 5 were taken as disagree.

STATISTICAL ANALYSIS

Data was entered and analyzed in Statistical Package of the Social Sciences (SPSS) version 23. Gender and students' perception regarding the e-learning educational atmosphere were presented as frequency and percentage. Mean±SD was also calculated for all factors of the questionnaire.

RESULTS

Out of 209 participants, 88(42.1%) were males and 121(57.9%) were females. The questionnaire assessed five factors: programme effectiveness, teaching quality, ethics & professionalism, learner support, and safety & convenience. The majority of the participants (86.2%) found the programme effective and 84.8% were satisfied with the teaching quality. Students responded positively to the questions regarding ethics & professionalism (88.1%), learner support (64.1%), and safety & convenience (82.7%). One hundred and eighty seven (89.5%) of them were satisfied with studying in this virtual program and 201(96.2%) were satisfied with the online teaching skills of the facilitators. A majority of the participants agreed that the facilitators were responsive and enhanced student's motivation to learn and 189(90.5%) said they felt safe to ask questions during the course. The study results, as summarized in Table 1, indicate positive perceptions across various factors assessed by the EEAM questionnaire. These findings demonstrate the overall satisfaction and positive experiences of participants in the e-learning environment.

DISCUSSION

This study aimed to measure students' perceptions of the e-learning educational environment at CHPE. This

study provided valuable insights into five crucial factors: programme effectiveness, teaching quality, ethics & professionalism, learner support, and safety & convenience. According to the study's findings, postgraduate students enrolled in the CHPE program have a positive perception of the e-learning environment. In this study, 86.2% of the participants were agreed with the programme effectiveness. According to the results, the CHPE program is effective as it enables students to understand the subject matter and attain targeted learning outcomes. Alzahrani also commented on the use of technology to enhance learning and the level of support provided to students. According to him, one of the most fundamental advantages of technology in education is its capacity to assist students with physical learning.⁵ Badger also emphasized that factors of the EEAM questionnaire play a crucial role in the effectiveness of the e-learning program, as they can help to create a sense of community, engagement, and motivation among students.³

Our results showed that 84.8% of participants were satisfied with teaching quality in terms of e-teaching skills [201(96.2%)], resources [174(83.2%)], feedback [122(58.3%)], and group activities & environment [205(98.1%)]. The positive remarks concerning the quality of the teaching in this study underline the importance of the teachers' e-teaching abilities and their capacity to engage students using a variety of techniques are also in line with the results of a study by Castro-Bedrinana et al. The focus on proper feedback, scheduling of course delivery, and use of educational resources all support the idea that the teachers are crucial in fostering a productive and enjoyable learning environment.⁴ Al-Fraihat et al. also suggested that teaching quality is very important for assessing the level of engagement and collaboration between students and instructors in an online setting.⁶

The responses in this study depict that 88.1% of participants were positive about ethics & professionalism and indicated that the CHPE program's instructors fostered a helpful and encouraging learning environment. The respect for copyright & intellectual property rights along with the consideration of cultural & socio-economic issues show the importance of ethical behavior in the context of online learning. Similar results were observed by Ahsan et al. and Pierszalowski et al. who discussed the importance of responsiveness and availability of teachers, and being concerned about students' learning as key items for the professional and ethical behavior of teachers. These elements are considered important for creating a positive and supportive educational environment in e-learning.^{7,8} Another study also recommended that these elements help students

Table 1: Participants Responses to all EEAM Factors

Factors	Agree	Neutral	Disagree
Programme Effectiveness	86.2%	10.4%	3.4%
Courses' resources and contents are intriguing and motivational for learning.	188(90%)	17(8.1%)	4(1.9%)
The possibility of learning academic meta-skills (such as writing a proposal, working with academic software, etc.) is provided for me.	156(74.7%)	45(21.5%)	8(3.8%)
Courses' contents and activities are understandable and tangible.	193(92.3%)	11(5.3%)	5(2.4%)
Teachers assess the students pretty well in various courses.	170(81.3%)	28(13.4%)	11(5.3%)
It's easy for me to study and do my assignments and activities.	167(79.9%)	27(12.9%)	15(7.2%)
During this program, my ability to interact with others in virtual space has increased.	194(92.9%)	9(4.3%)	6(2.8%)
I have learned what I needed to learn in this program.	189(90.4%)	18(8.6%)	2(1%)
This program will prepare me for my future job.	178(85.2%)	23(11%)	8(3.8%)
I am satisfied with studying in this virtual program.	187(89.5%)	18(8.6%)	4(1.9%)
Teaching Quality	84.8%	10.7%	4.5%
Teachers of this program have e-teaching skills.	201(96.2%)	6(2.8%)	2(1%)
Teachers of this program give timely feedback on my assignments, activities, and messages.	122(58.3%)	52(24.9%)	35(16.8%)
The timing of delivering courses' resources and activities during the semester is appropriate for me.	174(83.2%)	25(12%)	10(4.8%)
Teachers of this program care about students' views on how to present their courses and activities.	169(80.7%)	29(14%)	11(5.3%)
Teachers of this program cover the teaching process within LMS.	180(86.1%)	25(12%)	4(1.9%)
Teachers of this program benefit properly from available educational facilities for better e-teaching.	190(90.9%)	16(7.7%)	3(1.4%)
Teachers of this program use different methods (such as chat rooms, group assignments, etc.) to encourage group activities and engage students in virtual environment.	205(98.1%)	3(1.4%)	1(0.5%)
Ethics & Professionalism	88.1%	9.8%	2.1%
Teachers of this program help raise my motivation for learning	190(90.9%)	17(8.1%)	2(1%)
Teachers of this program have good and up-to-date academic ability.	196(93.7%)	10(4.8%)	3(1.4%)
Copyright and intellectual property of scientific resources and contents are respected.	192(91.8%)	15(7.2%)	2(1%)
Teachers of this program are responsive and available.	167(79.9%)	32(15.3%)	10(4.8%)
Teachers of this program try to make sure about my learning.	161(77%)	42(20.2%)	6(2.8%)
Cultural issues and social etiquette are observed in the educational environment.	187(89.5%)	16(7.7%)	6(2.8%)
Relationships governing the educational environment are with respect and courtesy.	196(93.7%)	11(5.3%)	2(1%)
Learner Support	64.1%	26.5%	9.4%
Administrative educational staff and authorities are well responsive to me.	162(77.5%)	34(16.3%)	13(6.2%)
Technical support staff and authorities are well responsive to me.	159(76.1%)	38(18.2%)	12(5.7%)
I have access to a decent digital library.	73(34.9%)	85(40.7%)	51(24.4%)
If necessary, I have access to an academic adviser.	114(54.5%)	65(31.1%)	30(14.4%)
There is good support for top students.	105(50.2%)	81(38.8%)	23(11%)
There are good supports for weak students.	109(52.1%)	80(38.3%)	20(9.6%)
Course plans are clear and available.	171(81.8%)	30(14.4%)	8(3.8%)
Given the virtual feature of the program, there is sufficient flexibility in administrative processes (e.g. number of units per semester, maximum permitted duration of the program, etc.)	153(73.2%)	47(22.5%)	9(4.3%)
Students' views on the program delivery and educational services are considered important.	160(76.5%)	38(18.2%)	11(5.3%)
Safety & Convenience	82.7%	13.7%	3.6%
I feel comfortable to ask my questions.	189(90.5%)	17(8.1%)	3(1.4%)
Content types and activities match my learning style.	175(83.6%)	29(14%)	5(2.4%)
I can easily work with LMS.	160(76.5%)	40(19.2%)	9(4.3%)
I do not feel lonely in my learning environment.	187(89.5%)	18(8.6%)	4(1.9%)
There is a good place for e-learning in my society.	173(82.8%)	24(11.5%)	12(5.7%)
I have become aware of educational regulations and administrative processes.	172(82.2%)	30(14.4%)	7(3.4%)
There are clear guidelines and style sheets for using educational and research facilities and systems.	153(73.2%)	43(20.6%)	13(6.2%)

successfully navigate the course, have access to relevant materials, and get the support they need to advance in their learning.⁹

According to our results, 162(77.5%) learners agreed that education staff & authorities were well responsive to them. Moreover, other studies also focus on the importance of “learner support” and “programme effectiveness” factors in technology-enhanced educational settings.^{10,11}

Javed et al. also mentioned in their research that lack of support from the instructor could be a major challenge for students in an online learning environment. Without clear guidance and support, students may feel lost and unsure of how to proceed with their coursework.¹² Additionally, without regular interaction with their instructor, students may feel isolated and unmotivated to continue with their studies. This is why providing support and creating a sense of community is important to help students stay motivated and engaged in their online learning experience as discussed in other studies.¹³

The participants showed positive feedback on safety & convenience (82.7%) which indicates that efforts were made to create an engaging and interesting learning environment, where students feel comfortable asking questions and are given user-friendly tools and platforms. A similar study by Al Rawashdeh et al. has emphasized that e-learning increases the possibility of contact between students among themselves and between the students and the teacher, thus creating a positive learning environment.¹⁴

Overall, the study’s findings show that postgraduate students had favorable perceptions of the CHPE program’s e-learning environment. Another study also supported that the e-learning environment is suitable for postgraduate students and showed positive responses from candidates.¹⁵

CONCLUSION

Students have positive perceptions regarding programme effectiveness, teaching quality, ethics & professionalism, learner support, and safety & convenience. They are satisfied with taking the online program certificate course. Furthermore, the EEAM is a comprehensive tool that captures various aspects of the e-learning environment and provides a holistic view of the educational atmosphere. It can be used in interactive e-learning courses to enhance the students’ learning.

LIMITATIONS & RECOMMENDATIONS

In this study, the survey was conducted only on students of postgraduate programs, which limits its generalizability to other educational settings, such as undergraduate programs. Therefore, further research is

needed to assess the suitability of the EEAM for undergraduate students. The results of such studies can be used to modify or adjust the online model to better reflect the experiences of undergraduate students. Additionally, it would be beneficial to compare the results of the undergraduate studies to those obtained in the original postgraduate study to identify any differences in the factors that influence students’ perceptions of the online learning environment.

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