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Exploration of the Opinions of Mphil Students for Online Education During COVID-19 Pandemic

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ABSTRACT

The outbreak of COVID-19 has had a significant impact on the educational system around the world; it has forced the closure of educational institutions, which has a negative impact on the student fraternity around the world. COVID-19 required containment and enforced isolation because of its contagious nature, which had a significant impact on teacher-student interactions. Computer-based learning has emerged as the closest equivalent for offline instruction in the absence of traditional classroom teaching and one-to-one engagement. In light of this, it is important to investigate students' perceptions and preparation for the online learning system being implemented at the university level during the ongoing COV. In light of this, it's important to look into students' perceptions and readiness for the online learning system that has been implemented at the university level during the ongoing COVID-19 pandemic. The quantitative approach was used in this study, and responses were collected via an online questionnaire. In the year 2020, a research study was undertaken. The study's findings demonstrate students' positive attitudes regarding e-learning and, as a result, their acceptance of this new learning system. It has also proved the value of e-learning in the context of the COVID-19 problem. E-learning has evolved as a new technique for increasing the learning process, with social media potentially enhancing the learning output even further. The study's findings will help educational institutions and policymakers take online learning toward the next stage in a more effective way.

Keywords: *COVID-19, Zoonotic disease, Online, Education, Learning*

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Introduction

COVID-19 is a zoonotic disease (Altaf, 2020; Adil, 2021). Information technology has a huge impact on human existence, and its importance in education cannot be overstated. Due to the closure of educational institutions, which creates obstacles to students' learning, the contribution of information technology has gained speed in the present COVID-19 pandemic scenario. Through creative and learning management systems, information technology is functioning as a solution for the continual learning process during this quarantine period (Zayabalaradjane, 2020). It has allowed educators to adopt IT solutions for teaching and evaluating students' completion of coursework. Teachers, students, and institutional officials are all working hard to make the most use of technology and have an efficient learning process (Henderson *et al.*, 2020; Sanam, *et al*., 2023). The overall goal is to close the information gaps that lockdown causes.

Students and educational institutions all around the world have welcomed and valued the online learning platform. Ease of use, learning flexibility, and customizable environment are the reasons for its acceptability. Despite its numerous benefits, e-learning has several drawbacks, including social isolation, face-to-face interaction between teacher and student, connectivity challenges, and so on (Henderson *et al.*, 2020). Before this ongoing pandemic that pushed the world to resort to electronic learning solutions, e-learning had never been adopted and regarded as true learning or the formal way of education. (Mahajan and Kalpana, 2020). Now, in the midst of a pandemic crisis, most educational institutions are looking into and embracing e-learning to make it easier for students to adjust to their new normal. Teachers and educators are also experimenting with various e-teaching tools to provide the most convenience for their students (Nassoura, 2020). Teachers and students are in the process of adapting to this new teaching and learning style, as this e-learning wave is a recent development. In the current situation of virtual teaching and the establishment of a new normal of teaching-learning methodology, it is all the more important to learn about learners' opinions and to explore learners' inclination towards this novel teaching methodology, such as their degree of adaptation and, if any, amendments they would like to suggest for the same, or their desire to reject it entirely (Bali and Liu, 2018). In light of this, the purpose of this research is to investigate the perception of e-learning during the COVID-19 lockdown period.

MATERIALS AND METHODS

The Pakistani government announced an epidemic emergency on March 20, 2020, which resulted in the suspension of face-to-face learning in all educational institutions. Every university was required to undertake only e-learning. After a few weeks of purely online learning, all medical students were sent an anonymous questionnaire via Facebook forums for all students. From the 20th of May through the 20th of June, the questionnaire was available online. There were no conditions for exclusion. The questionnaire could only be completed once by each student. All respondents were properly briefed about the study's goals and consented to participate voluntarily. A total of 88 students took part in the research. Members of the COMSATS University Islamabad's bioethics committee (27/2020) gave their approval to this project.

It has the distinct advantage of being the most obvious technique for likelihood inspection. One disadvantage of simple arbitrary testing is that you may not be able to find enough people who share your desired attribute, especially if your trademark is unique. It may also be difficult to characterize a total inspecting edge and poorly organized to contact them, particularly if many methods of contact are necessary (email, telephone, post), and your example units are dispersed throughout a large topographical territory (Sharma, 2017).

The questionnaire (see Questionnaire, Supplemental Content, https://docs.google.com/forms/d/e/1FAIpQLSev86s45kwX4B_IO3EJ2BC9I16sXtzFuQF1NjlMLDfJbn1PBQ/viewform) was developed by the authors for this study and it was assessed by the Bioethics Committee. The questionnaire consists of two sections, the 1st section about demographic information and 2nd sections about Internet facilities and problems that affect the student's academic achievements at the M. Phil. level at COMSATS University Islamabad. The questionnaire consists of close-ended questions.

The reliability of an instrument cannot be found by the instrument because it could not provide the required information about research. The reliability of the instrument was checked by repeating the test of the same people also checking of the instrument reliability. We can check the instrument on a small portion of the sample. Reliability was established when we got the same result in testing and retesting. The same was repeated after some time, if the instrument showed the same result, then the use of the instrument was reliable. The research permit is used for getting permission to visit the University by the Head of Department. Before filling out the questionnaire, it was introduced and motivated the students about the research topic and questionnaire understanding. The questionnaire was filled out by the students of a given sample of the

population. Using a questionnaire easily collects data from a large size of the sample. The questionnaire was administered by the researcher.

Data analysis means sorting, editing, coding, cleaning, and processing of given data. Data analysis also involved quantitative methods. The quantitative data was collected by questionnaire. This collected data was processed or analyzed by the use of Past software. The whole collection was analyzed through PCA. Data is also represented graphically.

RESULTS

There is a necessity to study the demographic information of students because in this research the main focus is only on the students. Figure 1 shows that the majority of Students in the MSCS 1st semester have an age group between 19-25 and other minority belong to the 26-35 age group, and they have experience with online classes during COVID-19. During online classes, there is a large number of students who have to connect at the same time but there are many issues like bandwidth and latency and many other issues but there are some platforms that provide greater flexibility and usability for users. So, the students and organizations select the best tool for online education. Most of the students used the Microsoft Team platform to attend/take online classes which was developed by Microsoft. Only one student uses Zoom Video Communications, which is cloud-based software still in progress.

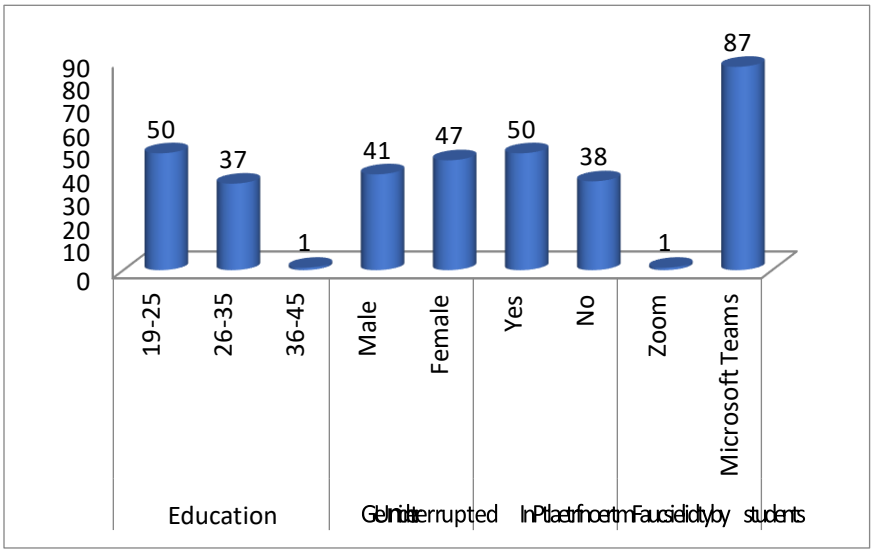

Figure 1: Profile of the respondents.

Table 1 shows that students' first importance in the platform is easiness. The second importance is it should be easy to adapt. The third preference is data security, and the Fourth preference is Low internet data usage. The fifth preference is user interface should be attractive and the sixth preference is other Features in the Platform.

Table 1: Features Preference.

Statement	Easy to Use	Easy to Adapt	Data Security	Low Internet Data Requirement	User Interface	Other features
Which Feature is your first preference	37	17	9	12	10	3
Which Feature is your second preference	21	31	12	12	10	2
Which Feature is your third preference	10	17	29	18	11	3
Which Feature is your fourth preference	9	16	21	27	12	3
Which Feature is your fifth preference	9	9	16	13	29	12
Which Feature is your sixth preference	9	1	4	10	10	54

The first two axes of the PCA explained 86.796% of the variation in sampled data (Component 1: 65.216 %; Component 2: 21.58%). Variables loading onto "Component 1" included Which Feature is your First Preference (r = 11.612), which feature is your second preference (r = 15.056), which feature is your third preference (r = 11.635), which feature is your fourth preference (r =10.316), which feature is your five preference (r = -2.9855) and which feature is your six preferences (r = -45.634). Variables also loaded into "component 2" (which feature is your first preference: r =20.454; which feature is your second preference: r = 9.486; which feature is your third preference: r =-11.673, which feature is your fourth preference: r =-11.64, which feature is your fifth preference: r =-10.009 and which feature is your sixth preference: r =3.3818. Each principal component is not correlated with previously explained components (Figures 2 and 3).

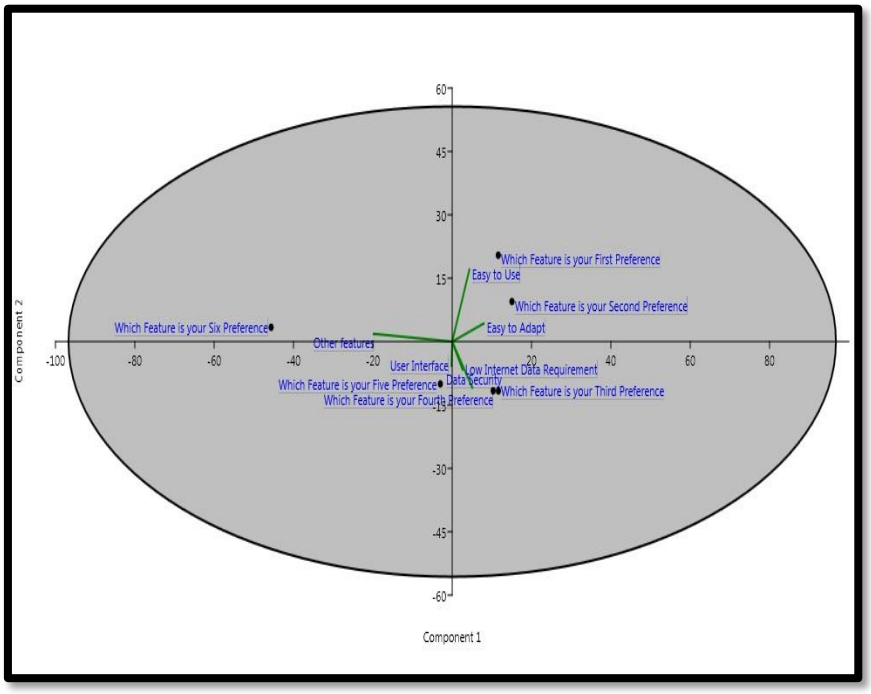

Figure 2: Recent data is analyzed through Principal component analysis.

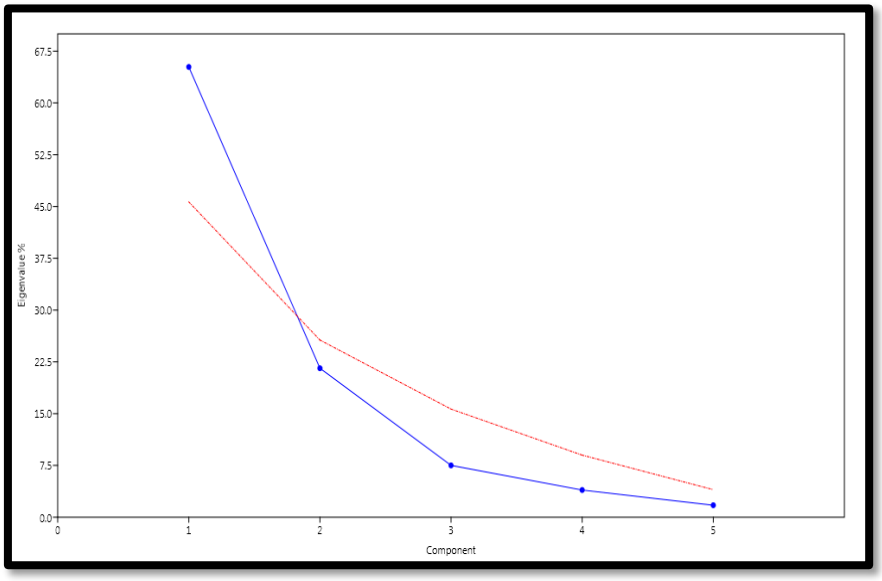

Figure 3: Correlation among the variables in PCA.

Table 2: Exploration of opinion.

Sr.	Statement	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
1	Online classes are comparatively easy to conduct	14	16	12	8	38
2	Learning to take online classes was easy and does not require much time	16	17	10	16	29
3	Online classes are more convenient.	9	14	20	12	33
4	Online classes are more useful as they provide greater flexibility	13	10	15	18	32
5	Online classes save time.	14	17	16	15	26
6	Online classes are useful since they could be made available at any location.	12	16	8	12	40
7	I appreciate that I can access my online course any time at my convenience.	11	13	12	18	34
8	It enables to connect with all more effectively through various options like chat groups etc.	14	15	22	15	22

9	My experience with online classes was better than I expected	14	17	25	10	22
10	The service level provided by the various online classes tools was better than I expected.	14	28	14	14	18
11	Overall, most of my expectations from using tools for online classes were confirmed.	14	20	25	11	18
12	I am satisfied with the use of communication platforms in the online environment	22	16	23	12	15
13	I am more satisfied with teaching online as compared to other delivery methods	36	19	15	8	10
14	I am pleased with the experience of using online learning.	28	22	14	6	18
15	I would like to continue teaching online even after coronavirus.	45	18	12	6	7
16	I believe traditional offline learning and e-learning can go hand by hand.	41	15	18	7	7
17	Technical problems do not discourage me from online classes.	26	14	28	8	12
18	Remote learning is effective for country development.	13	17	20	15	23
19	Learning Material is helpful which is University offering	9	15	13	12	39

	you in the resources to learn from home?					
20	Distance learning is stressful during the COVID-19 pandemic.	7	11	14	16	40
21	Students can easily manage their time while learning remotely	6	15	14	23	30
22	Subject discussion with classmates is easy while in learning remotely	12	19	14	15	28

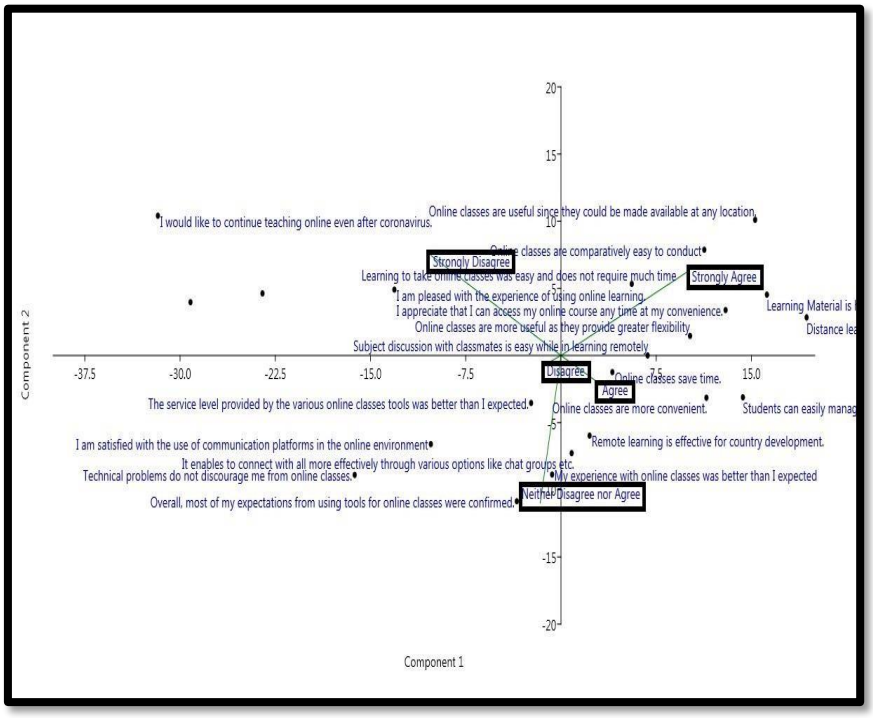

Figure 4: Recent data is analyzed through Principal component analysis.

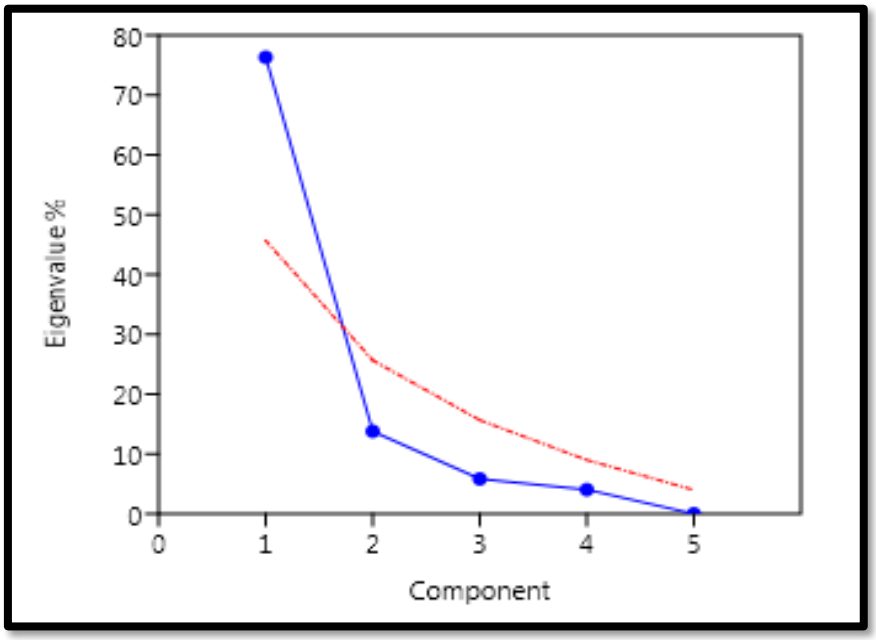

Figure 5: Correlation among the variables in PCA.

The first two axes of the PCA explained 90.1% of the variation in sampled data (Component 1: 76.31%; Component 2: 13.79 %). Variables loading onto "Component 1" included Strongly Disagree (r =-0.68895), Disagree (r =-0.08819), Neither Disagree nor Agree (r =-0.10987), Agree (r =0.20674), and Strongly Agree (0.68026). Variables also loaded into "component 2" (which Strongly Disagree: r =0.50144; Disagree: r = -0.04677; Neither Disagree nor Agree: r =--0.73798, Agree: r =-0.14262, and Strongly Agree: r =0.42593. Each principal component is not correlated with previously explained components (Figures 4 and 5).

The respondent of the research was students, students got responses on whether they get a better education using the online education system or if the previous mode of education is better than online education. If online education is best, then what are the key factors influencing students learning efficiently? Either the material or online classes are feasible or not. Table 2 shows Students' opinions regarding online education most of the students said that Online classes are comparatively easy to conduct and learning to take online classes was easy and does not require much time. Online classes are more convenient and more useful as they provide greater flexibility, save time, and are useful since they could be made available at any location. They like the fact that they can get to online courses any time whenever it might suit them. Equal

strength of Students said that it enables them to connect with all more effectively through various options like online groups etc. They said that their experience with online classes was not better or worse. The service level provided by the various online classes' tools was not better than they expected. Overall, most of my expectations from using tools for online classes were 50% confirmed. They are not fulfilled nor disappointed with the utilization of correspondence stages in the online climate. They are not happy with showing on the web when contrasted with other conveyance techniques, not satisfied with the experience of utilizing internet learning. They don't care to keep showing on the web even after COVID-19. They accept conventional disconnected learning and e-learning can't go hand in hand. They do not agree or disagree and claim that technical problems do not discourage them from online classes. Remote learning is effective for country development, learning material is helpful which is University offering in the resources to learn from home. Distance learning is stressful during the COVID-19 pandemic. Students can easily manage their time while learning remotely; Subject discussion with classmates is easy while learning remotely.

Discussion

The element "Possibility of Working with E-learning" obtained a favorable response rate of 59.2 percent. This demonstrates that the majority of students are capable of utilizing the e-learning platform since they find it user-pleasant. The most effective learning management system is one that has a variety of tools to make it more accommodating and manageable for e-learning courses (Juarez Santiago *et al.*, 2020; Oguguo *et al.*, 2021). Because of limited embedded applications and security concems, not all e-learning platforms are open source. In addition, 55.5 percent of people responded positively to immediate comments. Quick feedback is especially crucial in the context of e-learning since timely and prompt responses encourage students to participate in discussion forums and therefore catalyze the e-learning process. The variable "accommodates diverse sorts of learning styles" obtained 55.4 percent favorable replies, indicating that the majority of students like the e-learning platform's accommodating nature for various learning styles. This finding is consistent with previous research that has demonstrated the ability of e-learning to handle a variety of learning contents (Bralić and Divjak, 2018).

There are 53.8 percent favorable responses for the variable "broad and diverse relationships." This suggests that more than half of all

respondents are at ease with online learning, despite their lack of personal interaction. They are also aware that cultural diversity groups are meeting online and collaborating during the process of learning. The variable "Access to Higher Education for All Applicants" garnered 46.2 percent affirmative replies, indicating that slightly less than half of the respondents believe in expanding options for students to participate in higher education systems via the online method. E-learning has been a significant enabler of access to higher education, providing additional chances to learners by eliminating the barrier of geographical proximity (Almaiah *et al.*, 2020; Eze *et al.*, 2020). Working people can enroll in e-learning and study while continuing to work. E-learning has accounted for a large portion of such enrollments, as well as an increase in citizen literacy (Palvia *et al.*, 2018).

Conclusion

From the research study, there are some opinions of the students that affect the academic Achievements of the students. The Internet availability and the issues/errors while connecting discourage students from learning online. Many platforms are being used for online education but there are errors while connecting when a large strength of students try to join. Online classes are comparatively easy to attend and do not require much time and a student can easily take class because it is more convenient. Online classes have greater flexibility, save time and can be accessed at any location. Students like online classes in the sense they can access their course at any time at their convenience. It enables to connect with all more effectively through various options like chat groups etc. The traditional offline learning method is much better than online classes because students can easily interact with other class fellows and teachers for subject discussion. Due to these deficiencies Distance learning is stressful during COVID-19.

Recommendations

- Based on the Research study there are the following Recommendations
- There should be an uninterrupted internet facility for the students to access online education platforms.
- The platform used for online education should be Interactive, easy to use, and adaptable.
- The Service level provided by different tools should be better.
- There is a need to minimize the problems while connecting and try to encourage all students to attend or join the class and make the class interactive.

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