

ORIGINAL RESEARCH

Students & Faculty Perceptions on Online Vs Offline Foundation Course– An Observational study

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ABSTRACT

Introduction: Medical Education in India is being revolutionized with the introduction of “Competency- based undergraduate curriculum” for the Indian Medical Graduate (IMG).The newly revised curriculum insists on the foundation course of one month duration at the beginning of the MBBS program. Sudden lockdown situation due to COVID- 19 forced medical institutes to shift from offline teaching to online teaching. Therefore, the present study aimed to assess the perception of students and faculty for online versus offline mode of foundation course at Punjab Institute of Medical science, Jalandhar.**Material & Methods:** The study was questionnaire based study. The study participant included 150 first year medical students of batch 2020 joined PIMS Jalandhar and faculty / non faculty members of pims involved in foundation course. Students and faculty perception was recorded on self pre-designed and pre-defined structured questionnaire. **Result:** Online classes can be attended in comfort of home & at favourable timing, along with other learning methods but are non-interactive as compared to Offline classes were concepts were easy to understand and doubts were cleared immediately. Teacher’s perspective was that online teaching demands sophisticated juggling skills & lots of resources. **Conclusion:** During COVID pandemic online classes worked well and can be uses as supplement to live face-to-face classes. Proper technical equipment and trained staff to handle technicalities and internet issues is needed.

Keywords:online classes, offline classes, foundation course

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INTRODUCTION

Medical Education in India is being revolutionized with the introduction of “Competency- ncybased undergraduate curriculum” for the Indian Medical Graduate uate (IMG).⁽¹⁾

It marks a significant shift from the teacher centred learning to student centred learning, which stresses the practicalities, skills development, medical ethics, and better doctor-patient relationship. The newly revised curriculum insists on the foundation course of one month duration at the beginning of the MBBS program with an objective to sensitize the fresh medical students with the required knowledge and skills that will assist them in acclimatizing and making them familiar to the new professional environment.

As envisaged by the Medical Council of India (MCI), an IMG should have attributes like Clinician, Lifelong Learner, Leader, Communicator, and Professional.⁽²⁾

The foundation course helps the students to get an overview of the MBBS curriculum and learn medicine effectively to achieve the required attributes. The purpose of the Foundation Course has been to: a) Orient the students to all aspects of the medical college environment; b) Equip them with basic important, skills required for patient care and enhance their communication, language, computer and learning skills; c) Provide an opportunity for peer and faculty interactions and an overall sensitization to various learning methodologies.⁽³⁾

One of the initial requirements of any successful program is learner satisfaction and continuous quality improvement.

Sudden lockdown situation due to COVID- 19 forced medical institutes to shift from offline teaching to online teaching. Therefore, the present study aimed to assess the perception of students and faculty for online versus offline mode of foundation course at Punjab Institute of Medical science, Jalandhar

METHODS

The present study was questionnaire based study. The study participant included 150 first year medical students of batch 2020 joined PIMS Jalandhar and faculty / non faculty members of pims involved in foundation course. Students and faculty perception was recorded on self pre-designed and pre-defined structured questionnaire. Students, faculty & non faculty perception was compared on these modules that were taken both online & offline

- Leisure & extracurricular activities
- Computer skills
- Time management
- Sports
- Yoga
- Basic life sport
- Lifelong learner

STATISTICAL ANALYSIS

All the recorded data was entered in the Microsoft Office Excel Worksheet to create the “Master Chart”. For Statistical analysis, the data was imported in the SPSS 16 statistical software and was analyzed.

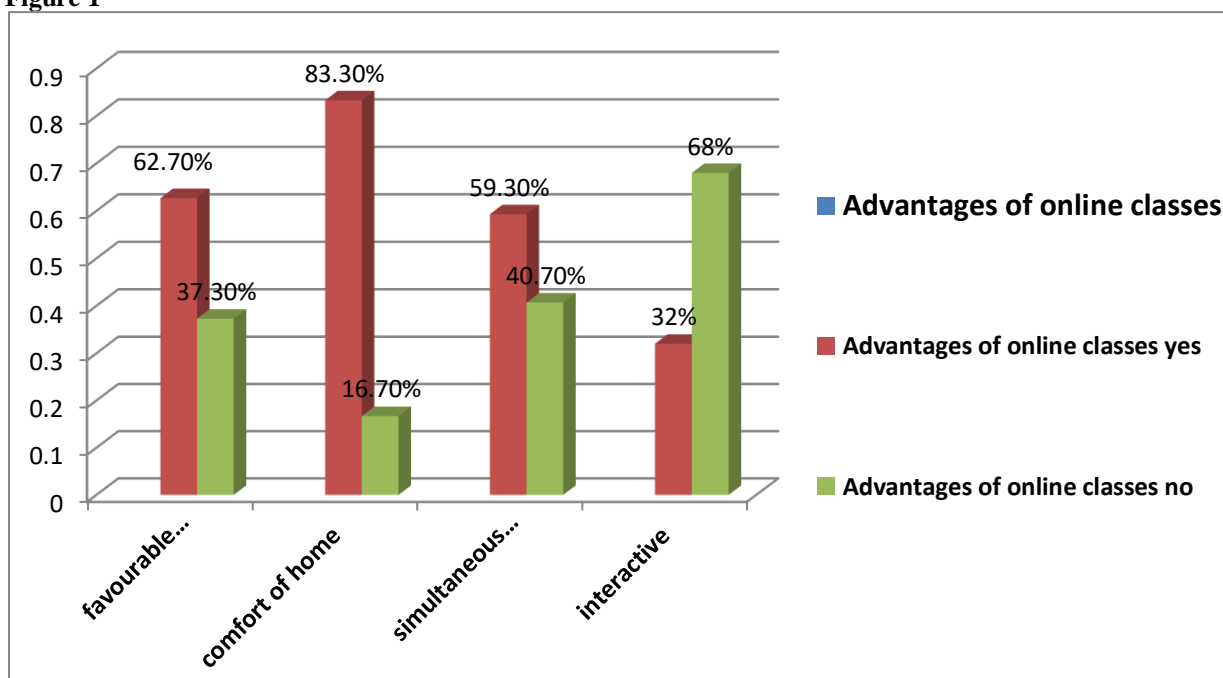
RESULTS

Feedback response was obtained from all the 150 students (i.e. response rate of 100%), who underwent the foundation course and from the 50 faculty & non-faculty members (i.e. response rate of 92%), who taught the topics.

Teaching underwent several changes, and the sudden lockdown situation due to COVID-19 has forced all medical institutes to implement online teaching. PIMS, Jalandhar, was first medical college in Punjab to redesign its teaching methods and start online classes with the help of zoom app. Lockdown happened in the mid of foundation course, so the second half of this course went online.

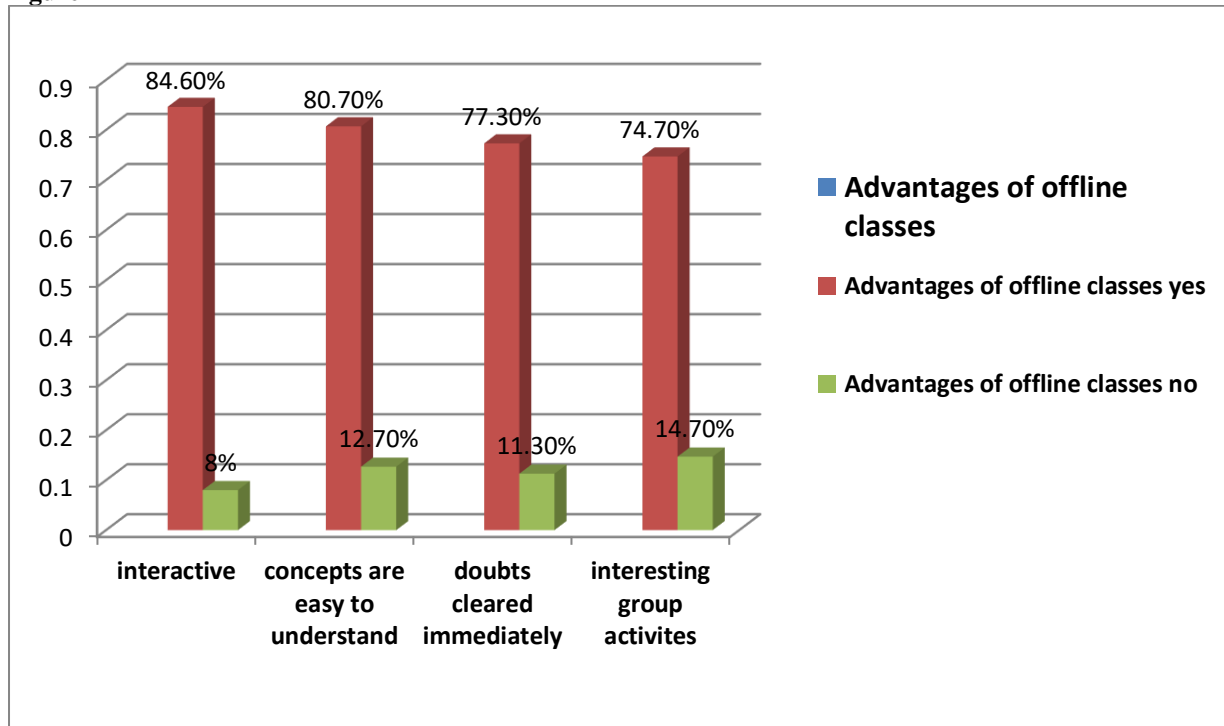
Regarding advantages of online classes, 83.3% students found that online classes can be attended in comfort of home & at favorable timing (62.7%). 59.3% students found that along with online classes they can use other learning methods also. But 68% students found online classes to be non- interactive.

Figure 1



Offline classes were found to be interactive (84.6%), concepts were easy to understand during offline classes (80.7%) and doubts were cleared immediately (77.3%). Also group activities are better done during offline classes (74.70%)

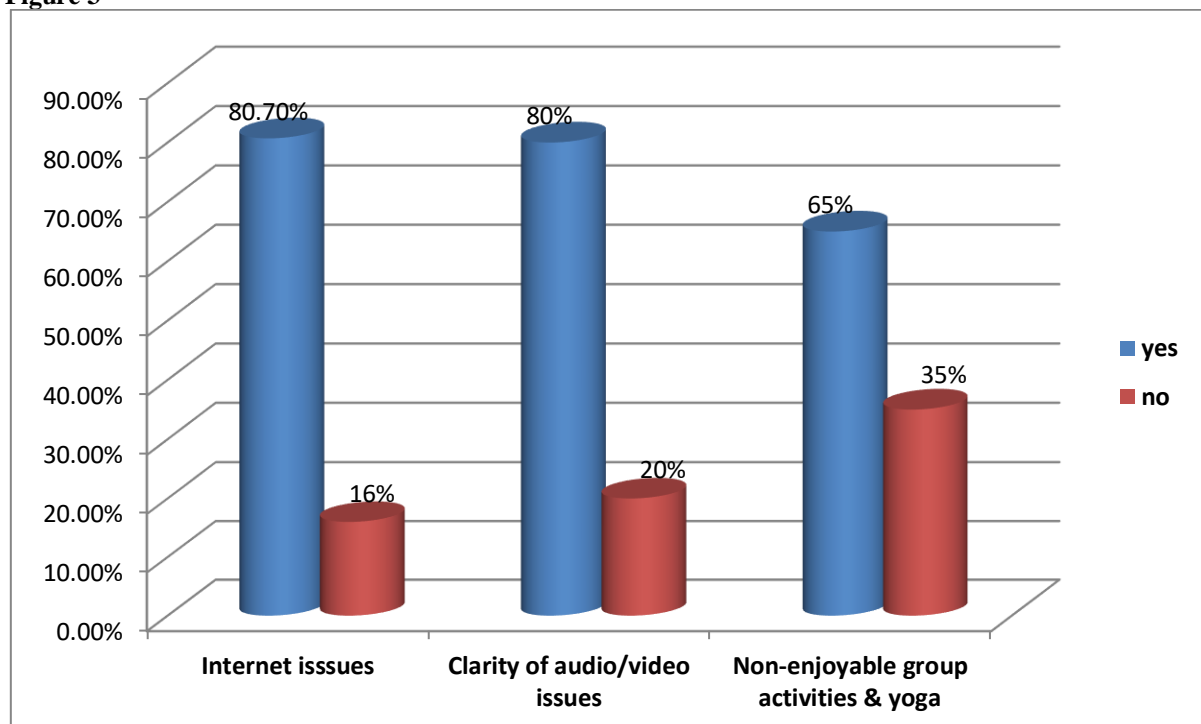
Figure 2



Difficulties faced during online classes were internet issues (80.7%) & frequency of technical issues was encountered more than 2 times in 1 hour class. Audio & video clarity was not good and group activities

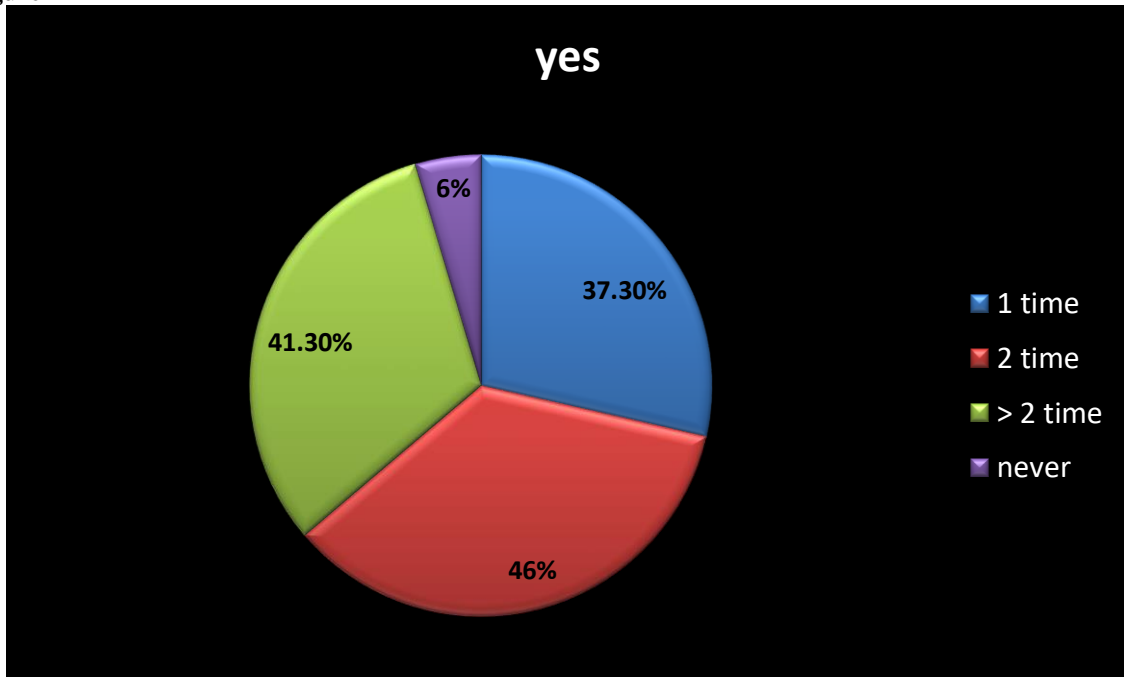
were non- enjoyable. Experience of online yoga was average. Handwriting on the board was not clear and colour of chalk for figures was not clear.

Figure 3



Frequency of technical issues faced during online classes were

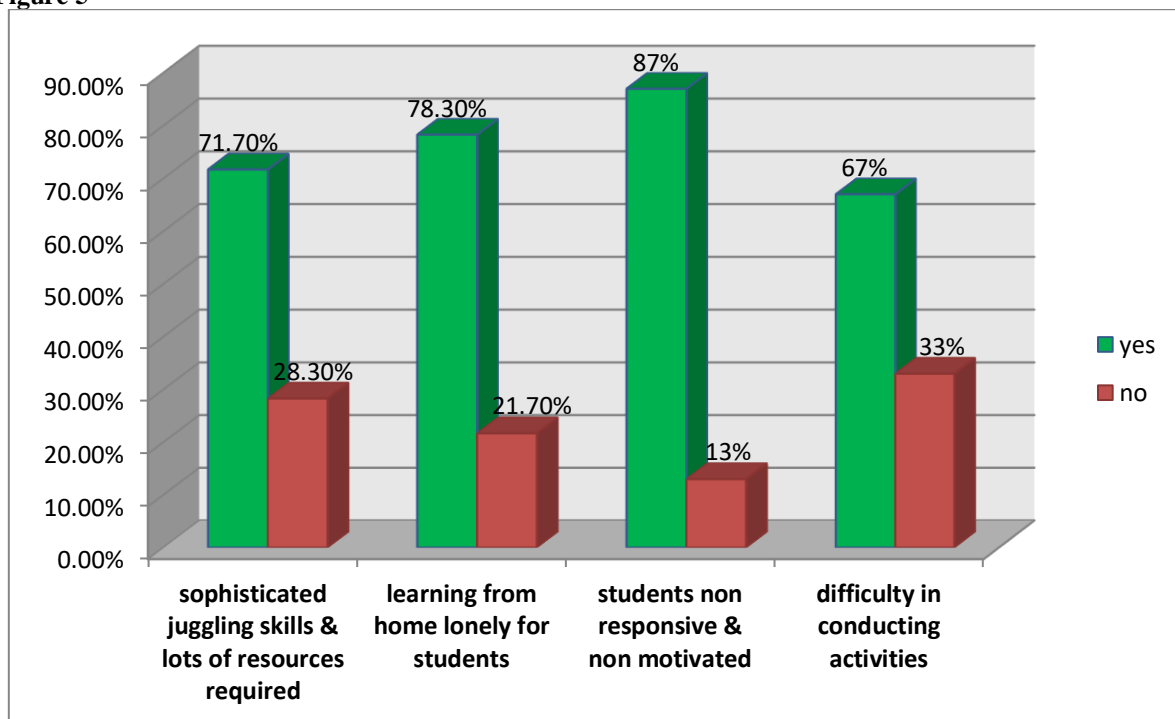
Figure 4



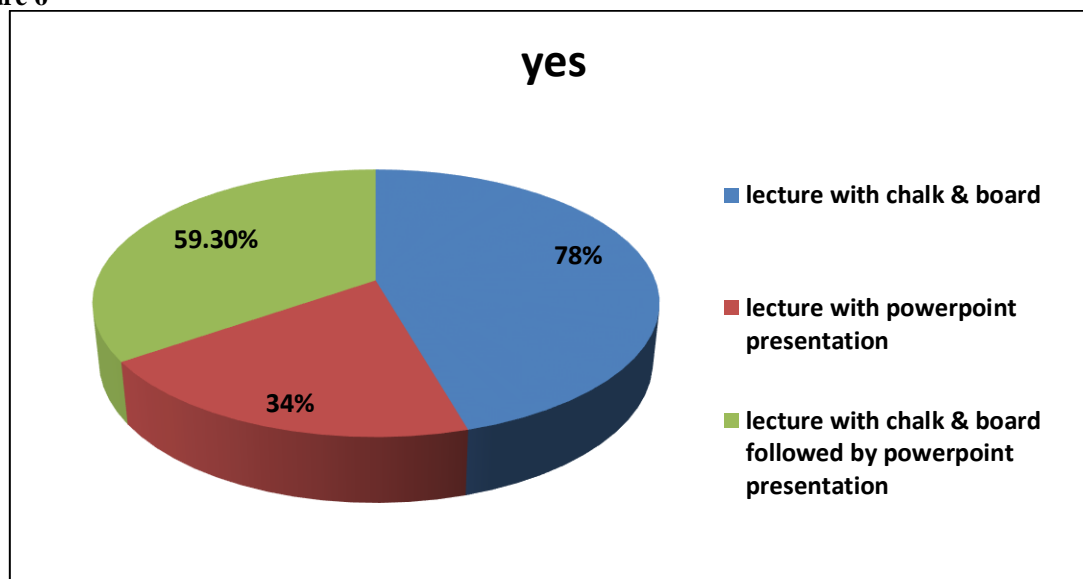
Teacher’s perspective towards online vs. offline foundation course was that online teaching demands sophisticated juggling skills & lots of resources (71.7%). Teachers found that learning from home can be lonely for students (78.3%). Difficulties faced by

teachers were non-responsiveness of students during online classes (87%) & they found lack of motivation among students during online learning (76.1%). Online group activities, sports & yoga activities were difficult to conduct (67%).

Figure 5



Favorable internet connection for online classes was wifi (85.3%) followed by broadband (40%). It was easy to assess zoom app for online classes on laptop (73.3%) as compared to mobile (54.7%) and tablet (52.7%). Preferred teaching method for both online and offline classes came out to be chalk & board (78%).

Figure 6**DISCUSSION**

The Covid-19 pandemic started in December 2019 in Wuhan, China and spread around the world rapidly within months. The pandemic affected all areas of life, including education. As the situation worsened, the global lockdown culminated in a lockdown of educational institutions. Medical students face challenges that set them apart from most college students, since they can get infected during a clinical session with a patient who is COVID positive, or they can serve as a vector, thus harming the patient and their colleagues including professors and doctors. Almost all students returned to their hometowns because of the lockdown. Medical students and teachers explored new ways of learning/teaching and this led them to online learning.

2019 batch had almost completed their syllabus when lockdown was imposed and the leftover syllabus was completed with online classes followed by their exams, so their experience with online classes was little and we could not record their experience. But when 2020 batch came we were relieved as we could start offline classes. In accordance to NMC's Medical Education Program, a month long foundation course was designed and implemented in our institution but lockdown happened in the mid of foundation course and we were forced to resume online classes.

In PIMS, Jalandhar Punjab we redesigned our teaching method and started online classes. So we planned this study by taking students and teacher's perspective on online vs. offline foundation course. We wanted to know that if students are experiencing difficulties in one month foundation course itself than how they can cope with online classes of full syllabus where we have to conduct practical classes also. We wanted to understand pros and cons of online teaching and remedial measures that we can plan in our college so that students are benefited and purpose of teachers

to impart holistic approach to teaching is also fulfilled.

We started with virtual lecturers in the department (without students) on mobile/ laptop. The lectures were broadcast through zoom app. Online classes were well received by students, in spite of technical difficulties.

Students found that online classes could be attended at favorable timing with enjoying comfort of home (83%) and they can also use other learning aids (59%) but students found online classes to be less interactive (68%). Opinion of less interaction in online classes was also reported by others both in India and outside India^{4, 5}. In a study done in Rishikesh medical college, Uttarakhand, they found high level of interaction among the speakers and the students but there was no physical interaction among students and faculty which somehow takes away the warmth of mentor- mentee interaction⁶.

Further while delivering lectures speakers remained unaware of how many students were actually attending their session since students could keep their microphones and cameras off. If students kept them on, then there were disturbances in the form of background sounds. During interaction with students, only some of the students would participate in interaction and others remained silent⁴. Similar problems were faced by our faculty members also, apart from this there was problem of logging in the classes of people other than our medical students which created lot of disturbance during conduct of classes. Online classes were also found to be non-interactive by students of Maulana Azad Medical College, New Delhi⁵.

Main advantages of offline foundation course conducted in our medical college was that lectures were found to be interactive (84.6%), with greater participation of students as compared to online (68%), concepts were easy to understand during

offline classes (80.7%) and doubts are cleared immediately (77.3%). Also group activities are better done during offline classes (74.70%) as compared to online classes (14.7%). Subramanian et al. indicated that though online learning worked well as compared to offline learning but it is not clear whether it is an effective teaching method for every student in every learning context.⁷ In a study done in Uttarakhand, medical students were of the view that face-to-face teaching is better than online teaching, however combining both the methods in future after routine classes commence in the institute was favored by most students.⁸

Internet issues were the major drawback of online classes in our study followed by audio & video clarity. Long screen time was one of the major concerns for students in study done in Uttarakhand. This also led to reduced concentration during classes.⁸ Study done on first year students in Rishikesh found lack of peer learning a drawback of online classes and also only few students can interact at one time and other remained silent.⁶ Another study from Nepal suggested slow internet

connections, lack of technical knowledge, issues with etiquette with volume controls and video backgrounds as some of the limitations.⁹

Teacher's perspective in our study was that online teaching demands sophisticated juggling skills & lots of resources; also E-learning from home can be lonely for students. Main difficulty faced by teachers were non-responsiveness and lack of motivation among students during online learning. Hodgson's study reported that both students and teachers agree with benefits of features such as video calls and group chat with online platform (Microsoft Teams) in improving the interaction with quick adaptability of the students. They however reported poor internet connectivity leading to call dropouts as a limiting factor.¹⁰

CONCLUSION

Online classes provide teachers with a number of online learning tools including videos, audio, animations, virtual whiteboards, virtual conference rooms and live chats with the students. On the other hand, offline classes provide students with a practical learning environment within the walls of a physical classroom. During COVID pandemic online classes

worked well and can be used as supplement to live face-to-face classes. Proper technical equipment and trained staff to handle technicalities and internet issues is needed.

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