Original Article

Students' Perspective Towards Online Teaching-Learning Activity

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Abstract

Background*: Online learning is a form of education that takes place over the internet. With the advancement of information and communication technologies, the acceptance of online education is increasing. It is an alternative to traditional classroom learning and involves using primarily the internet and one or more other technologies.* ***Objective****: To identify the advantages and disadvantages of online learning from the student's perspective.* ***Materials and Methods****: Data were collected from 256 MBBS students of Enam Medical College with a predesigned questionnaire by purposive sampling to assess the student's perception towards the online teaching-learning modalities, its advantages, limitations and recommendations how the online teaching and learning process can be made more effective.* ***Results****: The findings of the study revealed that most of the students are self-educated and lack of institutional knowledge regarding ICT tools and online learning process. The study result showed several advantages including; it is flexible regarding the time and place, sharing of information is easy and cost effective. Whereas, lack of face-to-face interaction, less effective in practice-based learning, disturbance of physical health, lack in student feedback, reliable internet connection, lack in computer skills and limited infrastructure at work place are identified as challenges. The students have also given their opinion regarding the possible steps and strategies to improve the online learning more effective.* ***Conclusion****: As with most teaching methods, online learning also has its own set of positives and negatives. Several initiatives like; more communication between students and teachers, use of more suitable technology, supporting the struggling students and creating a sense of comfort can make it more effective.*

Key words*: Online learning; ICT tools of online learning; Advantages and disadvantages of online learning*

Introduction

The ubiquity of information technology has been influencing almost all aspects of our lives: the way we work, interact with others, process data into information, analyze and share information, entertain ourselves and enjoy tourism. E-evolution or e-revolution has witnessed e-mails, e-commerce, e-government and now e-education. E-education or online education is changing the way of our teaching-learning approach. As information and communication technologies (ICT) have kept advancing, online education has become more feasible technologically, economically and operationally.[1]

The pandemic known as COVID-19 is an unforeseen

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global crisis and many countries have imposed restrictions on population movement and some have instituted full or partial lockdowns to slow down or prevent the spread of the infection and prevent health systems from becoming overwhelmed.[2] The pandemic has led to the sudden closure of offices, shopping and educational institutions all over the world temporarily.[3] It has forced us to rapidly adopt, integrate and use technology to help us survive during these challenging times.[4] As social distance is crucial, this shutdown stimulated the schools, universities and colleges to find out an alternative way so that there would be no interruption to education.[5] All sectors including most of the educational institutions around the world compelled the conversion of the traditional face-to-face instruction into a completely online or blended/hybrid learning format in a short transitional time.[6]

Online learning is a web-based virtual environment aiming to provide the interaction of the students with the content, teachers and classmates using different devices (e.g., mobile phones, laptops, etc.). In these environments, students can be anywhere to learn and interact with instructors and other students.[7,8] It involves the implementation of advancements in technology to direct, design and deliver the learning content and to facilitate two-way communication between students and faculties.[3] An online learning may be completely web-based or a combination of web-based and campus-based traditional classroom teaching. There are three ways of online learning– asynchronous, synchronous and hybrid or blended format (a combination of both synchronous and asynchronous) online learning.[9] Synchronous learning session requires simultaneous presence of student and teacher at the same time in a virtual classroom to interact and collaborate and it requires a timetable. On the other hand, asynchronous environments provide students with readily available materials in the form of audio/video lectures, handouts, articles and power point presentations. It is not time bound, accessible anytime anywhere and students can work on their own pace.[10]

As information and communication technologies have kept advancing, online education has become

more feasible technologically, economically and operationally.[1] Learners now want to receive a quality education without having to sacrifice work time, family time and travel expense. Because of these demands, online education has become a viable and alluring option.[11] Flexibility is a pleasing aspect of online learning; a learner can schedule or plan their time for completion of courses available online.[8] Online learning converts the traditional classroom education into a new virtual approach of learning, where students or teachers do not need to be available all the time but the learning resources can be obtainable round the clock in the form of video or audio or any other file formats.[12]

It is said that online learning is easily accessible and can even reach to rural and remote areas through a single internet connection. It is considered to be a relatively cheaper mode of education in terms of the lower cost of transportation, accommodation and the overall cost of institution-based learning.[8] Instead of having to be at a specific location at a specific time, online educational students have the freedom to communicate with instructors, address classmates, study materials and complete assignments from any internet-accessible point. This type of flexibility grants students much-needed mobility and in turn, helps make the educational process more enticing.[11] In spite of the fact that online learning is rapidly increasing and growing, many problems remain unresolved. Its challenges and issues continue to be in the focus of practitioners and researchers' attention. Along with online education recognition, its disadvantages are widely discussed and debated.[13] The modern technologies involved in online teaching learning may create difficulties and problems ranging from downloading errors, issues with installation, login problems, problems with audio and video and so on. In online teaching process sometimes, student finds them to be boring and unengaging. Personal attention is also a huge issue facing online learning. Students want two-way interaction which sometimes gets difficult to implement. The learning process cannot reach its full potential until students practice what they learn. Sometimes, online content is all theoretical and does not let students practice and learn effectively.

Mediocre course content may also be a major issue in online teaching learning process. Students feel that technical problems and difficulties in understanding instructional goals are the major barriers for online learning.[8] Some elements that might be considered as obstacles in online learning, such as decreased motivation of students, delayed feedback or help due to the fact that teachers are not always available or feelings of isolation due to lack of physical presence of classmates.[14] There are some limitations in online learning in medical education when there is a need of acquiring practical and clinical skills that are required to become a competent clinician. From the dissection of a cadaver and autopsy to understanding the surgical and clinical methods of an undergraduate medical course require hands-on and real-life experience that cannot be simulated or substituted by the virtual method.[15] By changing or developing attitudes of the teachers and students towards the online learning can help to overcome some of the potential challenges posed by online learning.[16]

It is worth noting that there are not enough data as sufficient research work has yet to be conducted to trace the advantages and challenges of online learning from the student's perspective. Therefore, the present study is aimed to generate more data regarding various issues and controversies of online teaching-learning by evaluating the level of knowledge and experience of the students.

Materials and Methods

The present cross-sectional study was carried out through the collection of quantitative data by purposive sampling from the 256 MBBS students (third year, fourth year and fifth year) of Enam Medical College between June 2021 and July 2021. They participated in the online classes during the COVID-19 pandemic. For data collection, a predesigned questionnaire was used to assess the students' perception towards the online teaching-learning modalities, its advantages, limitations and recommendations how the online teaching-learning process can be made more effective. All participants had previously participated in both face to face learning and at least one year in online learning during the last year. Ethical approval for this study was taken from the ethical review committee of the Enam Medical College. The answers collected from the participants were recorded and analyzed subsequently.

Results

In this present study, a total of 256 students participated and gave their valuable opinion regarding the knowledge about information communication technology tools (ICT) advantages, disadvantages of online education. They also commented how to make it more effective. Among them 136 (53.12%) were male and 120 (46.88%) were female students (Table I).

Table I: Gender distribution of the participants

Gender	Number	Percentage
Male	136	53.12
Female	120	46.88
Total	256	100

In response to the question "How did you gather knowledge regarding the ICT tools and online learning software's?" majority of the students answered that they gathered knowledge from internet and from friends (Table II). Only 28 completed any institutional or academic course on ICT tools and online learning software's. It indicates that most of them are self-educated and lack of institutional knowledge regarding online learning process.

Table II: Sources of knowledge gathered regarding the ICT tools and online learning software's

Sources of knowledge gathered regarding the ICT tools	Number
Completed any institutional or academic course on ICT	28
From friends	172
From internet	193
Newspaper or magazine	12

Awareness or knowledge about the different tools of ICT and online learning software's are shown in the Table III. They have excellent, good or average knowledge about most of the tools except MS Excel and Power point. Among the participating

students, about 77 (30.08%) and 67 (26.18%) have poor knowledge about MS Excel and Power point respectively.

Table III: Level of conception and skill about the different components of ICT tools and online learning software

ICT Tools	Excellent	Good	Average	Poor
MS Word	64	101	67	24
MS Excel	28	55	96	77
Power Point	45	52	92	67
Internet Browsing	89	120	35	12
E-mail	84	112	52	8
Social sites	77	92	84	3
Online learning softwares	52	84	104	16

Table IV: Number of students agreeing with advantages of online teaching-learning (n=256)

Advantages	Number	Percentage
More flexible regarding the time and place	232	90.62
Offer combination of education with work and family life	220	85.93
Sharing of information is easy through online education	215	83.99
Helps to acquire new ideas and technology	212	82.81
Online learning is faster and cost-effective	163	63.68
Gives greater control over learning than traditional learning	85	33.20
Learning environment is attractive	117	45.70
Effective medium for learning	96	37.50

The online teaching learning method of study has several advantages. Out of the 256 students, highest 232 (90.62%) are agree with that online platforms provide incredible flexibility in both the time and place and it allows students to attend classes from any location of their choice. Followed by 220 (85.93%) students think that online learning offers students the opportunity to combine family life and work with education and lowest 96 (37.5%) thinks that online learning is an effective medium for learning (Table IV).

There are a number of disadvantages and potential issues that students may face while participating in online teaching learning process. Among the disadvantages, present study result showed that highest number of (245, 95.70%) students agreed that lack of face-to-face interaction between the learners and teachers is a major disadvantage of the online learning process. Two hundred forty one (94.14%) students think that there are some lackings in infrastructure, internet connection problems and computer skills. One hundred seventy one (66.80%) students agree with that it is associated with the disciplinary problems of the students (Table V).

Table V: Number of students agreeing with disadvantages of online teaching-learning (n=256)

Disadvantages	Number	Percentage
Lack of face-to-face interaction	245	95.70
Technology issues (Internet connection problems and lack in computer skills, limited infrastructure)	241	94.14
Less effective in practice-based learning	237	92.58
May disturb the physical health	228	89.06
Lack of student feedback	204	79.69
Lack of attentiveness	200	78.12
Hard to resolve difficulties	193	75.40
Diminished social interaction	184	71.88
Lack of discipline	171	66.80

We can take several creative steps and strategies to minimize the disadvantages of online teaching-learning. These steps and strategies will help to solve some of the challenges and make the online teaching-learning process more successful. In the present study we found that 244 (95.31%) students think that more communication between students and teachers are important. Two hundred thirty nine (93.35%) students agree with that using more suitable technology can make the process more successful. Among the other initiatives like; identification and supporting the struggling students, creating a sense of comfort and community of the learners and establishing of effective class norms may also help to improve the online teaching-learning process more and more effective (Table VI).

Table VI: Number of students agreeing with possible initiatives may be taken to overcome the limitations of the online teaching learning (n=256)

Initiatives	Number	Percentage
Create more communication between students and teachers	244	95.31
Choose suitable technology	239	93.35
Identify and support struggling students	235	91.80
Create a sense of comfort and community of learners	208	81.25
Establish effective class norms	204	79.69

Discussion

In recent years, online learning has become increasingly popular and emerged as a necessary resource for students and schools all over the world. Online teaching offers numerous benefits to students, instructors and institutions. Despite of the significant advantages, students encounter several challenges which ultimately lead towards either limited outcome.

In the current study, advantages and disadvantages of online teaching-learning process and possible initiatives to improve and make it more successful has been discussed. Our study interprets perspectives of the medical students towards the online learning.

In our study, students agreed with that flexibility in both the time and place, opportunity to combine family life and work with education, sharing of information is easy, it helps to acquire new ideas and technology and online learning is faster and cost effective are the major advantages. In a study done by Mukhtar et al[3] found that the advantages of the online learning include; flexibility (it is remote learning, comfortable, easily accessible) and student-centered earning. Another study result done by Kumar[17] showed that most of the students thought that studying through e-learning is a good idea. The study also observed that majority of the students agreed to e-learning as it provides an attractive learning environment and it helps to acquire new ideas. Study done by Makarova[13] showed that 28.9% of the participants preferred traditional learning, 26.3% of the students chose online education and about 44.7% said they would be satisfied with combination of these two and preferred hybrid learning. Among the advantages, the study result showed that over 80% of the respondents added that online learning saves their time and transportation fare and 20% of the participants mentioned feeling of comfort as another advantage. Study results from Luaran et al[18] also showed that the respondents preferred online teaching-learning because it provides more flexibility regarding the time and any place, it develops students independence and assists in the development of study skills and students can use tools that best suit their own learning styles.

Lack of face-to-face interaction, inadequate infrastructure, internet connection problems and computer skills, less effective in practice-based learning, may disturb physical health and disciplinary problems have been identified as the important disadvantages in the present study. The result from the study done by Kumar[17] showed that the limited infrastructures, feeling of discomfort with english, lack of competency with technology and lack of financial resources were the main problems in e-learning. In other study done by Mukhtar et al[3] found that the inefficiency and difficulty in maintaining academic integrity are the important limitations of online

teaching-learning process. Study done by Makarova[13] showed some disadvantages of online education which include: it is difficult to understand, students are less involved, lack of teacher-student communication and socialization, insufficient technology skills of teachers and a lack of motivation to learn. About 20% of the respondents mentioned poor internet connection as a problem. Another 20% of the students noticed laziness and inability to concentrate is another limitation of the online teaching-learning process. In another study results from Luaran et al[18] also showed that major disadvantages of online teaching learning were: it is expensive as it needs to buy the devices, reduced face to face interactions between teachers and with their friends.

Today is a very exciting time for technology and education. Due to the leaps in technology and increased internet access, recently online teaching learning has been accelerated. Though it has both advantages and shortcomings, it may be taken as a supplement or add on extension to traditional physical classes for the students who are motivated, self-disciplined and having high degree of time management skills. We look forward to receive more research works digging teaching-learning design strategies as well as technologies that will help humanize both students' and teachers' experiences in online education.

Because of advancements in technology, online teaching learning has become more accessible than ever before. As with most teaching methods, online learning also has its own set of advantages and disadvantages. Considering these advantages and disadvantages, even then online education can be recognized as a great alternative to the traditional education as it offers new opportunities for traditional learning.

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