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Impact of Coronavirus Disease (COVID-19) pandemic on classroom teaching: Challenges of online classes and solutions

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Abstract:

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by a newly discovered coronavirus and the WHO declared it a pandemic, and due to the high risk, the most government throughout the world have temporarily closed schools, colleges, and universities. The impact of this COVID-19 has been hit the education system worldwide, and according to the UNESCO, as of March 23, 2020, around some 1.3 billion learners worldwide were not able to attend educational institutions so to continue the education, most of the universities are providing teaching through online mode, but there are challenges of technological issue, time management, and adaptability.

Keywords:

Coronavirus disease 2019, learner, online teaching, teacher, teaching tools

Introduction

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by a newly discovered coronavirus, and the WHO declared it a pandemic, which is global crises, and presently, it a big challenge of everyone and has spread to every continent other than Antarctica. Due to the high risk of spread ability the most government throughout the world have temporarily closed schools, colleges, and universities in an attempt to contain the spread of the COVID-19.^[1]

The impact of this COVID-19 pandemic has been hit the education system worldwide, and according to UNESCO, as of March 23, 2020, around some 1.3 billion learners around the world were not able to attend school or university for face-to-face classes in the physical infrastructure.^[1-3]

Before the pandemic situation, most of the teaching in school and universities were

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lecture-based approach to teach students via face-face mode in the physical classroom, but COVID-19 pandemic situation has become a catalyst for all educational institutions to explore the alternate innovative solution of teaching through online so that students could not hamper their classes during this time. Hence, now the biggest challenge for lecturers is how they can teach their students in this pandemic situation where student are not in their physical classroom, so defiantly solution is online or virtual class room teaching but there are lot of challenges for online class room teaching.^[4]

Major Challenges

Teacher and learner adaptability

Most of the university students and teacher prefer face-to-face class in a physical environment and one of the reasons of this is better interaction or brainstorming discussion during the class on the topic but switching this type of traditional teaching to the online teaching through the e-learning process makes teaching

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and learning entirely different.^[5,6] As human nature, everyone feels comfortable in traditional things and resists in change initially and the same thing applies in universities teaching, so most teachers do not want to adapt the online teaching and learning environment change existing nature.^[5,7] Their resistance to adopt online teaching system might be less techno-savvy, time or feel less interaction and discussion in online classroom teaching. With student prospective, they also feel that online classrooms are having less space of discussion on the topic as well as lack of active learning environment as in face-to-face classroom environment gives them a feeling of the active learning process.^[5-8]

Management of time

For teacher prospective in the face-to-face class, there is the schedule for class, and during that time, they can discuss the topic and do other activities in the class in stipulated period, but in the online class, it takes more time to explain, for example in the face-to-face teaching if want to use flip flop model of teaching, you can invite student on board to explain the particular problem, but in the online class, it is not possible only you can do some poll, so time management is also issue for a teacher.^[5,7]

From the learner point of view online class requires a lot of time and intensive work for teaching and assignment.^[6,7] Those who prefer online courses due to flexibility and place find difficult to give proper time to study and assignment due to their everyday professional and personal commitment.

A regular schedule planner would be a significant help to these learners, as they could even set reminders for their courses and assignments.^[5,6]

Technical issues

For online classes, a high bandwidth Internet connection with good quality computer is required to attend the class without any interruption, but during this COVID-19 pandemic, internet connection is a big problem because most of the people are working from home and there is a high load of Internet server and there may interruption during class. Some online courses require particular software to install to participate in the class, but if the student is not having a good computer or unable to pay the fee for software, then it is really challenge for them to cope up with the online course. Technological proficiency is a must for online courses so that students can manage their assignments and courseware in an organized manner without struggling.^[7]

Motivation

For both teacher and learner, the online or virtual classroom is not having a highly enthusiastic and creative learning environment, so it could be said that it is a

less active learning process as compared to face-to-face classroom teaching, and because of this, there is less motivation which is the biggest challenge people face in online class teaching.^[8]

Solutions

Training to the teacher and learners

Proper and in-depth training can be given by the university to the teachers and learners about how to use the online teaching platform for teaching and assessment.^[9-12]

Some of the following platforms are available for online teaching.

Zoom

Online teaching during the COVID-19 situation can be done by this online platform. Zoom is a cloud-based video conferencing tool where you invite your students for class; during this both teacher and learner can use their audio and video for discussion as well as they send the message through the chat. The teacher can share files or powerpoint presentations to the students, and the host can record the complete session that could be run in future if it is required.

Blackboard collaborate

It is a web conferencing tool that allows faculty to synchronously communicate online with students anywhere in the world. Students can be in online class through their computer, tablet, or mobile device. In this, a teacher can use white board option to explain to the students, and it also provides audio, video, and chat facility to both teachers and students.

Udemy

It is one of the popular online classroom software for teaching and it allows teachers to design and publish robust online classes, including PowerPoint files, video lectures, documents, screencast videos, text, mashup videos, and audio files as well as having facility of the live virtual classroom, where the teacher can host a live video conference session with learners using Udemy's proprietary live video technology.

RCampus

It can be used to create courses, student assignments, keep grades, hold class discussions, and post many types of educational content such as videos, links, and images.

Learnopia

To prepare and deliver course online Learnopia is one of the platforms which provides the facility of videos, audio files, PowerPoint presentations, and document files, as well as assessment facility by multiple-choice Questions to the teachers.

WizIQ

For online teaching it is very common among the academic staff member in the universities. This is having the facility to deliver live and on-demand webinars and equipped with enough provisions such as slides, desktop sharing tools, audio, and video.

A teacher should prepare a class strategically for online teaching because as compare to face-to-face class it requires more time, so following thing a teacher can do for effective time management:

- Prepare Powerpoint presentation with more pictures and tables so that he can explain the topic effectively in given time
- Before the actual online class, he can divide his time into-presentation, discussion, polls, question and answer session, and accordingly, he should start the class so that end of class, everything will be covered
- At least 1 day before the class teacher should upload the Powerpoint presentation to the students so that they will be cope-up with speed and it will play a crucial role in time management.

To motivate in the online class, a teacher can do the following things:

- Use the whiteboard option, if available in the software (like in Blackboard collaborate it is available) and allow the students to write their opinion about particular topics and problem and even you are teaching calculation, ask them to solve on online whiteboard
- Conduct the poll in between the class about any question that will boost their active participation in the class
- Give them short 2–3 line assignment and ask the answer; it will create like a live teaching classroom
- Conduct some short quiz (2–4 questions) to check whether students are following you or not
- Show some topic related video like if you are teaching the Pharmaceutical tablet process, show them a video about the tablet manufacturing process.

Technological support

In the present COVID-19 situation, universities can provide technical support to the teacher and students through their IT department and other outsources for up-gradation or installation of software for online teaching, arrange some technical training through online mode. The benefit of technological support to the teacher and learner will boost their confidence in online learning as well as no learner will be left behind to getting education in the present Covid-19 situation, it will be also an alternate for future To provide Internet facility where it is not accessible they can tie-up with Internet service provider to create some hot spot nearby the learners so they can join their online classes without

any disturbances. Universities can provide some hard disk devices for Internet like virtual private network to the faculty members for better Internet service. The major concern or weakness of this is, there will be a financial burden on the educational institution, but as education is also an important part of any system so government can give some extra budget to the educational institution for smooth running of teaching and learning process in current pandemic situation. Another problem will be slow and delay the adaptability of older people or less techno-savvy person for new technology. Like to provide the teaching online education institution can provide the training of Blackboard Collaborate, which is one of the software and explain to them how to use to teach online, educational institutions can also use Google classroom to teach primary to the tertiary education institution.^[3,5,11,12]

Conclusion

In the present COVID-19 pandemic situation, it is need of the time to covert face-to-face classroom teaching into virtual classroom by online teaching in short period so that students can complete their curriculum on time without any disturbances. For online teaching, different challenges can be overcome by innovative teaching strategy by the teacher and a teacher can use any online (free or subscribe) free or subscribe tool of teaching students and explain through Powerpoint presentation, video, audio and explain them the matter effectively.^[3,11]

Web-based learning or e-learning is a good opportunity not only for teacher but also for the student in the present situation and in the initial stage, it poses certain threats to students and teachers, but the change in the attitude and technological literacy would help them gain confidence to succeed in their courses with a positive vibe.

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Conflicts of interest

There are no conflicts of interest.

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