COVID-19: Strategies for Online Engagement of Remote Learners

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Introduction

Any crisis in a nation will always leave its impact on education in some way or another. Students' right to education is threatened at times of crisis as a consequence of natural disasters like earthquakes, tsunamis, cyclones, war, disease outbreak, etc. The COVID-19 outbreak across the globe has forced educational institutions including medical schools to suspend campus learning in order to curb the spread of the virus. This has forced the teaching community to think of new avenues and alternate strategies for engaging our students. Many institutes of higher education have shifted to online-mode to ensure continuity of teaching-learning and assessment processes. It is time for us to think of 'flexible learning', a learner-centered approach that offers rich learning choices to the students. In online mode of flexible learning, students are provided with a variety of choices for their learning and allows them to take more responsibility for their own learning. Since, many of the medical school teachers are new to online mode of teaching their apprehension towards active online engagement of their students is inevitable. Here are some strategies for increasing and ensuring higher levels of student engagement in online teaching.

Smart teaching using smart tools

o Online lecture sessions using software like 'Zoom' can be made more interactive by dividing the whole batch into sub-groups with limited number of students. This will help teachers to monitor their students participation and can actively involve them by questioning and soliciting questions.

o Software like 'Voxvote' can be used for conducting online quizzes, opinion polls on a daily basis.

o Online multiple choice question (MCQ) and other objective type tests may be administered daily using software like 'Testmoz'.

o Since, unsupervised online exams have their own demerits, the validity and reliability of such unsupervised online exams can be improved by conducting more number of exams with different possible questions with varying time duration on the same topic instead of conducting one single exam for evaluation.

o Teachers can assign topics for assignment to students and can ask them to submit before a deadline. Students can submit written assignments using email or other e-platform like 'Canvas' and Google Classroom. Students can either forward their scanned copy of the written assignment or directly post the electronically typed one.

o Teachers can use 'Google Docs' for engaging their students in collaborative writing where a group of students can contribute for a single topic both synchronously and asynchronously. The faculty moderator can monitor

students participation and will also be able to identify and evaluate individual student contributions.

o Reading exercises –Teachers can post an article or suggest a book chapter and ask their students to compile and post the key points. A worksheet based on the contents of the topic may be prepared and posted as a learning task.

o Listening exercises - Teachers can identify the best 'Podcasts' for their subject and recommend the same to the learners. Podcasts are digital audio files made available on the Internet for downloading to a computer or a mobile device. Students can listen to the podcasts and finally answer a self-assessment questionnaire or rubric. Podcasts of 'Medical Educator' are quite popular among medical students.

o Watch and learn exercises - Teachers can post a video lecture of a subject topic from 'YouTube' or from free sites like 'OnlineMedEd', 'Medical Institution', etc. and ask their students to give their comments with regard to their understanding about the topic and post their queries in the online platform.

o Teachers can announce a subject topic and ask their students to browse through the 'YouTube' or other similar sites to identify the best educational videos available on the announced topic. After viewing the educational video, students provide their comments for calling the identified videos as the best educational video for the chosen content.

o Faculty can present a virtual clinical case and ask students to take part in the online discussion (synchronously or asynchronously).

o Virtual learning environments - Teachers can identify authenticated free virtual labs/virtual learning environments and direct their students to visit those sites and share their learning experience in the form of reflective writing.

o Use of authentic clinical cases – Teachers may post a mini clinical case and provide appropriate directions to elicit proper responses/views from their learners to link theory to practice. Here students will be directed to use the application of knowledge to the cases. This will also foster rational and creative thinking among students. This can be done either via Google Groups or Google Classroom.

o Teachers can create video lectures/PowerPoints with voice over and slide notes and circulate them to their students followed by a self-administered online objective type test.

o Publishers like 'Elsevier' provide free online teaching-learning resources for the health professionals. Teachers can identify such sites and can send the links of these free sites to their students as a learning resource and ask them to generate evidence for having used these sites for their learning.

Students as creators of learning resources

o Students may be asked to create their own educational videos or PowerPoint presentations with voice over and slide notes for a selected topic or for a topic of their own interest which may then be circulated among their peers and faculty for their understanding and comments.

o Students as teachers - Identify interested students who are motivated to act as teachers. Ask them to identify topics

they are more familiar with and entrust them with responsibility of online teaching of a selected topic to a group of students identified for this purpose. Here students will have freedom to design and execute their own teaching-learning plan.

o Students could also be directed to prepare MCQs, clinical vignettes / case scenarios for a chosen subject content. Other students can involve themselves in vetting these resources after that they may be forwarded to their faculty for their comments and for future use. This will allow students to become familiar with their subject contents and foster critical thinking.

o Medical humanities - Students may be encouraged to write stories and poem on medicine, narratives, illustrate medical concepts, create cartoons for medical sciences, create crossword puzzles in medical sciences, create short videos/movies, design innovative approaches for Information, Education and Communication (IEC) in Public Health, etc.

o Students could be encouraged to create a variety of learning resources for the topics of their interest and these can be stored in a repository for anytime retrieval.

o E-portfolios – Guidelines for collecting evidence for students learning in the form of self-assessment reports, rubrics, teacher comments, student contribution and participation in online activities may be issued in advance to the students. Students after collecting or documenting their learning evidence will reflect on selected documented learning evidence and forward it to the concerned faculty for appraisal. Showcasing of learning evidence may be

done by scanning the manual portfolio and forwarding it to the concerned faculty or by using free e-portfolio platforms like 'Mahara', 'FolioSpaces', etc.

Students' e-learning circles

E-learning circles are teams of remote learners who are highly interactive and participatory in nature and use online media to acquire a deeper understanding of areas of shared interest.

Steps for organizing 'students e-learning circle':

i. Divide the whole batch into a possible number of small sub-groups.
ii. Designate a faculty moderator for each sub-group.
iii. Allocate subject topic for each sub-group.
iv. Identify student coordinator for each sub-group who will be responsible for coordinating with other members of their group in designing the online session, conducting the session and reporting on the learning outcomes. In short, the sub-group will be responsible for making their own online learning plan, execute their learning plan and finally show evidence for their learning.
v. The faculty will observe the whole session by taking part as one of the participant and give his/her critical comments at the end of the session.

Online discussion forums

Using google Groups or Google Classroom teachers can initiate online discussion on a chosen topic. This can be done by dividing the whole batch into sub-groups. Teachers can moderate by giving constructive feedback and finally help the participants to summarize the whole discussion with important learning points. The summarization by participants can also be done on rotation giving opportunity to all individual participants.

MOOCs

Massive Open Online Courses (MOOCs) are becoming more popular in higher education. Teachers can identify relevant short term courses related to medical sciences and medical profession along with the course providers and suggest them to their students for enrollment. After completion of such courses the students may be awarded with appropriate academic credits and encourage them for further learning. SWAYAM, NPTEL, Coursera, edX are some of the popular MOOC providers.

Using current crisis as a learning opportunity to learn about the disease (COVID-19)

o   Students may well be asked to put in writing a narrative of this public health emergency which could include: what did they learn out of the present pandemic? How will they use this experience for their future career? What suggestions they can offer to combat the situation? Any innovative ideas for controlling the pandemic, develop policy measures and develop new resources like medical equipment, diagnostic kits, etc.

o   Students can be asked to gather newspaper items on the pandemic and compile the contents incorporating their own thoughts and ideas. The information may be about the disease, resources used, manpower utilisation pattern, logistics, screening of patients, medicines, etc. This can be submitted for their peer and faculty comments.

o   Students may be directed to search for online journal articles related to Covid-19 and reflect on their understanding about the pandemic and its spread.

Indicators for effective online engagement of students

In an online environment, student engagement is critical to learning which may be measured using a number of behavioural indicators. The behavioural indicators for online learners can be categorised as observational learning behaviours and application learning behaviours. Observational learning behaviours include reading e-mails, reading discussion posts, viewing videos, viewing lecture notes, documents, continuous virtual presence, etc., and application learning behaviours includes posting to forums, writing reply mails, taking online quizzes and other tests, post questions, seek feedback, give feedback, seek clarification, post self-created resources, making learning visible, etc.

Encouraging teachers and learners participation

Incentivising the achievements of learners and teachers with grades, certificate of appreciation, reward for group performance, gamifying with badges and certificates, providing timely constructive feedback, adding self-assessment rubrics, etc will encourage more teacher and student participation in online education.

Conclusion

The COVID-19 pandemic has disrupted the routine learning schedule of the day-scholars. Due to COVID-19 lockdown across the globe, the active hours the day-scholars that they would be spending in their college for learning is being spent at home which means they are left behind their routine learning activities. These online engagement strategies if applied for teaching, learning and assessment purposes will help our learners to continuously involve themselves in the learning process and will also foster good study habits in them without

compromising their professional attitudes. All these require faculty involvement, identification of appropriate digital learning platforms, designing of educational activities and proper planning and scheduling of activities based on the proposed learning experiences and expected learning outcomes. These strategies will help any higher education institution to effectively overcome the educational crisis that emerges at times of situation like lockdown due to public health emergencies or any other disaster for this matter.

Suggested readings

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