What Will In-class Teaching Look Like in a COVID-19 Classroom?

COVID-19 Classrooms are fitted to meet the public health guidelines; interactions within the classroom need to follow guidelines. Some rules would include: *Sitting at least 6 feet apart (This may mean splitting classes into half), wearing face masks at all times, no interpersonal contacts, and no shared surfaces*. George Djorgovski and Leslie Maxfield of Caltech have put together a visual simulation of a lecture hall under these conditions:
https://www.youtube.com/watch?v=Qpd5uFTd-ak&feature=youtu.be

Adhering to the guidelines creates limitations to conventional classroom interactions. Among the challenges to consider are these:

- Your class may be split to meet the health guidelines and you will have to consider how to coordinate between groups. This is in addition to the hybrid designs which require coordination between in-class and online components.
- Voice projection can be more difficult with face masks and across distance. You may need sound amplification for your lecture and for communications among students.
- It will more difficult to learn students' names and get to know them when students' faced are covered.
- It will be difficult to "read the room" when students' faces are covered.
- Group activities will present a challenge since students should remain physically distant from each other. In addition, students cannot work on a shared surface.
- For the "Hyflex" model with half the class attending in person and the other half simultaneously "attending" virtually, decisions would have to be made about what the virtually attending students are supposed to do (e.g., are they simply watching livestreaming or are they to engage in classroom interactions via technological media?). If the virtually attending students are supposed to engage, it will require a sophisticated maneuver of technology and will most likely to require assistance within the classroom to mediate backchannel communications.
- You are likely to deal with fluctuating attendances due to hardships, individual quarantines, and students confused about schedules and showing up for the wrong group.

Lecturing in a physically distanced classroom will be different from normal but still relatively straightforward. But if you wish to integrate active learning strategies and student collaboration in a physically distanced classroom, *you are most likely to use some technology for classroom interactions*. For example:

<u>For whole class discussions</u>

o Instructor can conduct instant polls (e.g., poll features in Zoom or Bb, Poll Everywhere, Kahoot) to initiate discussions or to quiz students on concepts learned.
o Students can engage in chat discussions on an application (e.g., Padlet, Twitter) projected on the big screen.
o As a no-tech option, students can carry individual white boards and lift up written questions and comments when it is hard to be heard over masks and physical distance.
o Students can write down comments on an individual Post-It and put it up on a common wall without having to touch anything. Instructor can take a picture of the collage of Post-It comments and have students draw conclusions by looking at the photo.

For group work and student collaborations

o Some students may need sound reinforcement to be heard in elevated noise levels during group discussions. They may use a voice-calling app (e.g., Discord, Whatsapp, Facetime) and earbuds or headphones. Or, rather than speaking, groups of students can interact via texts and shared online documents.
o Students may collaborate on a shared Google Document or Google Slide to avoid sharing a surface or a worksheet.
o Students can have discussions in virtual breakout rooms (e.g., Blackboard, Zoom) using computers or phones. Earbuds/headphones will be necessary to avoid disruptive noises in the room.
o Group sizes should be smaller (3-4) than usual to communicate via technology and across distance.
o Students can use backchannel chats to post questions and answer each other using Google Documents or features on Blackboard. The instructor can regularly pause and address questions not answered by other students.
o Peer-review, think-pair-share, jigsaw, and fishbowl are active learning techniques often used in traditional classrooms. For information on these techniques, see UC Berkeley resources on active learning or a list compiled by University of Michigan Center for Research on Teaching and Learning. However, these classroom strategies may need to be mediated by technology in physically distanced classrooms.

For individual active learning

o Students are given time during class to fill in the blanks in the PowerPoint slides. The blanks can be key terms, missing pieces in a theoretical proposition, in a diagram, or in a series of steps related to the course content.
o After explaining a theory, a concept, or a principle, have students take short quizzes using instant poll applications and review why they answered the way they did.
o Students are asked to contribute to the collective class notes on Google document.

- Students are given pieces of information or concepts and asked to put them into a sequence or into a conceptual map. This can be shared on Discussion Board after the class and discussion can continue online.
- Students are asked to post an essay answer to a critical thinking question on Discussion Board and comment on other students' essays asynchronously.

Imagining Physically Distanced Classrooms

The following articles can help us to visually imagine teaching in COVID-19 classrooms.

"The Physically Distanced Classroom: A Day in the Life" (Norman Clarke. University of Minnesota Rochester. Inside Higher Ed. 5/27/2020).

https://www.insidehighered.com/digital-learning/views/2020/05/27/envisioning-day-life-physically-distanced-classroom-opinion

"Simulating COVID-19 Classroom Conditions" (Chad Raymond. Salve Regina University. Activelearnings.com. 6/22/2020)

http://activelearningps.com/2020/06/22/simulating-covid-19-classroom-conditions/

"An Experiment in the Socially Distanced Classroom" (Janet Davis. Whitman College)

http://blogs.whitman.edu/countingfromzero/2020/06/19/an-experiment-in-the-socially-distanced-classroom/

Resources on Active Learning in Physically Distanced Classrooms

In short, creating interpersonal interaction in COVID-19 classrooms will require the ability to use technology, as these articles suggest.

"Active Learning in Hybrid and Socially Distanced Classrooms" (Derek Bruff. Vanderbilt University. 6/11/2020)

https://cft.vanderbilt.edu/2020/06/active-learning-in-hybrid-and-socially-distanced-classrooms/

"Active Learning While Social Distancing" (Reinert Center for Transformative Teaching and Learning. Saint Louis University

https://www.slu.edu/cttl/resources/resource-guides/active_learning_social_distancing.pdf

"Can Active Learning Co-exist with Physically Distanced Classrooms?" (Doug Lederman. Inside Higher Ed. 5/27/2020)

https://www.insidehighered.com/digital-learning/article/2020/05/27/will-active-learning-be-possible-if-colleges-have-physically