Masked teachers are continuously speaking and generate more heat behind their masks than simple everyday mask-wearing.

» **Advice:** Look for a well-fitting, comfortable, and breathable mask to deal with all that hot air (from enunciating, of course). It is worth finding just the right mask for teaching and extended wear. Finding a mask that matches the theme of the lecture is a bonus!

Masks and social distancing change hearing, listening, and sharing in the classroom environment.

» **Advice:** Learners will generally feel comfortable having more space around them to set up notes, devices, etc. But, learning in more cavernous spaces presents other interactivity issues. Sound can be muffled under a mask, encourage learners to use their “outside voice” with good diction to help everyone hear and follow the discussion. Learners who are naturally softer-spoken may need additional attention or encouragement to remain active in dialogues. Facilitators should repeat questions before continuing the discussion.

A lack of visual communication cues and facial expressions affects understanding and connection.

» **Advice:** Allow extra time for clarifying questions to make sure everyone is on the same page. Like Zoom, be alert to the processing burden in the “new” live environment, paying close attention to the needs of those with hearing issues, or people whose native language is not English.

Leading a live classroom session with a simultaneous Zoom session feels like running two classes at the same time, with a lot of cognitive load for teachers and learners.

» **Advice:** If a virtual classroom coupled with a simultaneous live classroom is the only option, restrict class-size and call in reinforcement professionals to help moderate one learning setting or the other. Know the capabilities of the technology for the learning space. Not all large classrooms, that can accommodate spaced learners have technology that will aid connecting all learners seamlessly (either via audio or video camera). As a potentially more successful alternative, consider hosting learning equitably for all using Echo360, Zoom, or asynchronously online in Canvas. Prepare for more lag time in communication between virtual and live participants—the course will likely feel it is moving at a slower pace for learners and less material may be covered due to problem-solving and other learner check-ins.

Voice and body language are critical considerations when lecturing with a mask.

» **Advice:** Amp up the energy! With facial expressions minimized behind a mask, teaching effectiveness is considerably enhanced by moving away from the podium and using more engaging teaching techniques. Using larger body movement and more vocal variety will seem overly theatrical from the teacher perspective, but will be highly valued from the audience perspective—do it! Higher Ed teachers generally, don’t have exciting learning environments carefully decorated to be stimulating, like K-12 teachers. To enrich a generally flat learning environment, begin class with an interesting case, a video or even music to get learners involved in learning quickly. Replace your outdated title slide with a critical thinking element to leverage every moment with learners. This same advice applies to online or virtual learning.
Both learners and teachers should refresh their knowledge of the science of learning.

 Advice: We are lucky! Make It Stick is an e-book that is available to all teachers and learners at UNMC. Many schools make this required summer reading before school starts. All you have to do is share the link!

The design of your Canvas course matters.

 Advice: Design your online course in Canvas with the same care you would design your home. If your Canvas course has all the excitement of a tax form—and you don’t even want to be there—neither will learners. Organize your course with consistent modules and be very explicit about your expectations. Add interest to your online learning setting by using interesting videos, introductory videos from both teachers and learners, or stimulating unit/module headers created in applications like Canva.

Prepare for disinfecting and crowd control time.

 Advice: Additional time for both teachers and learners will be dedicated to disinfecting. Consider how you can incorporate disinfecting times with critical thinking exercises to avoid learning time losses. Suspend traditional rules or practices like a break time, to avoid crowding in bathrooms and other public spaces. Consider creative ways to release class in distributed numbers.

The click of a button takes longer than one would think.

 Advice: The breakout rooms tool in Zoom helps the teacher and learners to recreate safe, small group discussions. However, transitioning to a magical virtual space, in which known or unknown people may appear, can be jarring. Allow plenty of time for people to reorient to the breakout room space. Providing clear instructions and easily accessed materials are also essential and reduce wasted time. Consider creating a customized, shortened URL for online documents that is easy to remember and access while in the breakout room (i.e., bit.ly/COMcase1). Conduct a low-stakes practice session to increase familiarity with the tool.

Weigh three different virtual classrooms carefully.

 Advice: Don’t stop at Zoom! Zoom was the platform that was adopted the most quickly during the early weeks of the pandemic, but now that we have settled into extended distanced education, more options may better suit various teaching/learning goals. Zoom is the ideal choice if engagement or live student discussion is a key feature in the learning. The breakout room feature in Zoom allows for smaller groups, reducing the potentially high extraneous load from many screens and many backgrounds. Echo360 offers no live video feed (saving some bandwidth, and reducing extraneous load) relying on the chat feature for communication. Echo360 also offers the most embedded student studying and communication tools such as bookmarking teacher recorded lectures, making notes on teacher handouts and asking questions to teachers or teachers aides at specific points during an e-lecture. Finally, going completely asynchronous by leveraging Canvas has advantages as well. Students can learn anytime/anywhere and connect with other learners at a time that is convenient for them. These three tools are applicable now, during a pandemic, but are definitely reshaping education for the future. *Watch our short video on cognitive load.
F.A.S.T. Workshop: Key Findings and Advice for Teaching this Fall

The more students understand the NEED for information, the greater the motivation for learning the material.

» Advice: Expert teachers are often very good at dispensing many important facts. A common misstep is to focus on facts, and miss setting up the application or the need for that information. One of the most important roles for the teacher is to establish a compelling, reason, value, or need for learning, today—it changes the listening. Consider starting lecture with a case of what happens if you don’t have the thinking capacity targeted by the lecture material.

Teach learners how to learn.

» Advice: The study habits that got learners into a health sciences program, won’t necessarily help them reach the finish line. There are far better, proven habits that are better uses of time than highlighting and rereading. Use the free posters that are downloadable at LearningScientists.org and help learners develop their own habits for better-retained learning.

Approach with grace.

» Advice: Transitioning to using different approaches and tools is a process.