

Questions from August 6 Live Webcast: Good Practices in Online Teaching from Those Who Wrote the Books

Q: Thoughts and experiences on asynchronous versus synchronous classes?

A: I don't think it's one versus the other: both have value. It usually comes down to the skills you wish to develop, the limits of the tools you are using, and the number of participants at any one time.

For instance, you can have a synchronous class discussion, either face-to-face or online, and/or an asynchronous online discussion. However, it is difficult having a synchronous online discussion with more than seven or eight participants using a video system such as Zoom, even using the chat facility. With say 30 participants it might be better to use an asynchronous online discussion forum, moderated by either the instructor, or for very large classes divided into sections and rotating student group leaders monitored by the instructor.

In terms of skills, if you want students to carefully research a topic first, or to provide evidence for any statements they make, then an online asynchronous discussion may be better. If on the other hand you wish to teach students to 'think on their feet' while at the same time being coherent and respectful, then a synchronous discussion might be better. If you wish to show a complex process, such as stripping an engine and re-assembling it, asynchronous (for instance, a recorded video) would be better, to allow students unlimited access to the various steps in the process. You can also more easily insert student activities within an asynchronous medium, making the learning more active.

You will note that determining synchronous vs asynchronous is probably more important than determining the mode of delivery. Synchronous can be done both face-to-face or online; asynchronous can only be done online or in a very separate way from a regular class, such as setting 'homework' for the student to bring back to the class.

I think most classroom instructors underestimate or are unaware of the value of asynchronous learning. This is one real benefit of a learning management system, which is mainly an asynchronous tool.

Q: I would like to hear suggestions on alternatives to design health science labs, pharmacology, and clinical procedures. I do not want to provide only case study simulations. I want to implement interaction and discussion.

A: Case studies are wonderful for practice in applying principles, practice with authentic situations, and critical thinking. Other ideas that might work in health sciences would be simulations, interactive tutorials, and branching scenarios that lead to different outcomes depending on the choices selected. These are all heavy lifts in terms of development but can be very effective. Other ideas that wouldn't require so much development would be video assignments where students perform certain tasks, demonstrate techniques, and/or discuss procedures and concepts could also work. Role playing with students taking different parts might also make sense, depending on the class and learning outcomes intended. The key to designing effective learning experiences is to start with the learning outcome. What do we want students to learn or do as a result of the activity? Then, design backwards from there using the resources and materials you have available.

Q: From a blended learning perspective is there an ideal or even a suggested best balance of time spent face to face v online modalities?

A: As with almost every question about teaching, it is difficult to give an answer that fits all teaching contexts. There are really three distinct factors that determine the balance of online and face-to-face: the needs of the students, the demands of the subject matter, and the preferred teaching methodology or approach to teaching of the instructor.

We know that freshman students coming straight from high school will usually want the full campus experience. At the other extreme are lifelong learners who have already been to college, are working and have families. They prefer the convenience and flexibility of being fully online. Then there are many students who have part-time work, or are what I call confident independent learners, who like to get the benefit of a mix of campus activities and online study. It is attempting to meet this mix of student preferences that is resulting in the development of HyFlex courses.

Online learning requires the ability to study independently to some extent. This is a teachable skill. Freshman students then might have the bulk of their teaching in class but could slowly and gradually be introduced to online work outside the class, which they then bring back into class for review and analysis. By the time they get to their final year, some of their courses could be fully or mainly online. In other words, this should be a programming decision or a departmental strategy, not left to individual instructors to decide on a course-by-course basis

In terms of subject matter, research shows that content transmission, 'soft' skills development, such as critical thinking, student research such as finding and analysing data, collaborative learning, and project work can all be done as well online as face-to-face with good course design. There are some practical activities that are still best done using real equipment, real contexts, but increasingly we are finding that video, simulations, and even game-based learning can reduce but not eliminate the time needed in labs or on hands-on activities, but there is still a lack of good online materials that can replace or simulate lab work or some aspects of experiential learning.

My experience suggests then that the older or the more experienced the student, the more that can be done online. What is important is to ensure that the on-campus learning experience is something that cannot easily be replicated online so that the time and effort and costs of students coming to campus can be justified.

Q: What are the parallels with choosing the right textbook or content to use in your on-campus course? Seems very similar to finding digital resources to use for virtual courses.

A: Indeed, choosing digital materials is similar to selecting appropriate textbooks for courses. With digital materials, though, sometimes we can find interactivity that can help the digital materials be not just a resource, but also a learning experience. Choosing digital materials that meet accessibility requirements is important to ensure that all students have access to the same opportunities to learn.