

Certificate in College Teaching (CTT) Program

Competency #3: Incorporating Technology in Your Teaching

Utilizing technology in the classroom can come in a variety of forms, including the use of presentation tools, online quizzes and activities, and classroom resources like Desire to Learn (D2L). In the context of hybrid and synchronous models of teaching, using technology means working within the constraints of Zoom and other video conference services to break down divides and effectively connect course material to students. As teaching shifts towards this model, instructors have a responsibility to utilize technology in the classroom for the key goal of making learning accessible for all students.

In the transition to synchronous and asynchronous learning environments as a result of the COVID-19 pandemic, video conferencing platforms (e.g., Zoom) replaced traditional classroom settings and changed how courses were conducted. Instructors and students alike were forced to engage with new technologies in different ways. Academic lectures were replaced with succinct presentations and the reliance on discussion-based interactions increased. This shift facilitated a rise in un-proctored online examinations, as well as untraditional assignments like podcasts, video essays, and more. As a result of extreme situations, instructors incorporated technology into their teaching. However, this implementation was often haphazard and variable based on the level of competency held by instructors and their students. The COVID-19 pandemic has taught us that the incorporation of technology in the college classroom also requires shifts in teaching, learning, and assessment to be effective.

There are numerous positive and negative effects of synchronous and/or asynchronous online learning. These range from improved virtual communication skills and schedule flexibility, as well as social isolation and lack of structure. During the pandemic and beyond, many students consider virtual courses to be a lesser experience than in-person learning, as they are unable to connect with professors and fellow students.

Despite this, incorporating technology into the classroom does not always mean pandemic-style teaching environments, however. Increasingly, hybrid learning approaches have been shown to facilitate better learning outcomes and have led to higher satisfaction among students than virtual learning. This approach allows for similar levels of flexibility with more opportunities for social interaction and face-to-face instruction for applied topics. As universities come out of the pandemic, this is a popular approach to blending the positive attributes of virtual and in-person learning.

Specifically, benefits of hybrid learning include variability for learners who enjoy the flexibility of both virtual and in-person classes, as well as expanded opportunities to incorporate technology in new ways. The alternative assignments (e.g., podcasts, video essays) arising from virtual classes during the pandemic are finding themselves in more traditional settings, which allows students to demonstrate their understanding of topics in more than one modality.

I have established the main trade-offs associated with hybrid, synchronous, asynchronous learning compared to traditional. However, I have not yet approached subjects of accessibility and inclusion, which must be centered in order to achieve maximum returns to students.

In some cases, traditional learning environments are superior to online alternatives by providing students with easier accessibility and room of inclusion. Online learning can be expensive, creating a situation where some students are socio-economically disadvantaged in comparison to their counterparts. Additionally, those living with disabilities are often marginalized by the implementation of technologies such as video conferencing, especially when instructor competency is low to begin with.

As we continue to adapt our education system on the bequest of the pandemic, we should be sure to keep these concerns in mind. For now, I do not feel that online learning provides the environment in which to benefit all students. Professors may not be able to effectively implement technology into the classroom, leading to lackluster instruction. Students may prefer interacting with peers and their professors, without which leads to mental health concerns and social isolation. As hybrid learning options continue to improve with time (e.g., competency increases), I believe that these options in addition to traditional instruction will best serve students.

When I am afforded an opportunity to teach in my own classroom, I plan to incorporate technology for the primary purpose of inclusive teaching. I will ensure that all classroom materials are properly formatted for screen reader usage. By providing presentation slides ahead of time, I will give students ample opportunity to prepare according to their individual needs. Additionally, this process has been shown to [increase student class attendance](#). Video conferencing solutions (like Zoom), as well as the ability to record lectures and post them online, will help prevent course attrition. While the prime modality may be in-person teaching, Zoom and other offerings provide students of all abilities the chance to participate in class. In some cases, a student may be ill or might not have the resources to attend class on a consistent basis. By meeting pupils where they are, learning is enhanced and made to be more inclusive.