

CASE STUDY

Online in the Studio During the Pandemic ... But Significant Challenges Still Exist

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Most classes at any university are knowledge driven and focus on the development of declarative knowledge. At the University of Minnesota College of Design, studio courses are the norm and focus on the development of design and making skills. In the past, this has discouraged the use and development of online courses. In-person, hand-to-hand instruction is the desired model for learning. Prior to the pandemic, few design schools nationwide offered design instruction using online methods.

In response to the pandemic, our university shifted all instruction to remote learning in mid-March 2020, including all classes in the College of Design. Most instructors had 10 days to convert their teaching model to an remote format. Programs in the college include architecture, product design, graphic design, drawing, watercolor, and interior design, and most are studio based. Studio education, by its nature, requires substantial work by learners; it is an active learning environment. Class sessions may include lectures, commentary, critiques by other students, and visiting critics.

This case focuses on a studio course in interior design with 16 students. The class used a range of different computer technologies. These technologies include Zoom, Canvas as a learning management system, VoiceThread, Revit, Photoshop, electronic journals, and PDF files. Using the Zoom platform, lectures were presented live as well as in a prerecorded format. It was also used extensively for critiques, reviews, and discussion.

One class meeting was specifically observed for the development of this writing. There were 16 students registered for the course, and 15 were present during class time. The session was also recorded for later student review.

This was a “check-in” or interim critique session, moving forward the students’ thesis projects. Students could comment on other students’ work as well as interact with the faculty comments. The instructor suggested breakout rooms for students who had other detailed information to share with specific peers. A timer was used to keep the instructor on time with the student appointments, although some

students finished early and the session often ran ahead of schedule.

While this class was shifted to online education on an emergency basis, the detailed technology use and the very personal interaction that was used through various channels was a very positive result. This was consistent with other classes in the college.

Most studio courses in the College of Design rapidly converted to meeting via Zoom or other online video communication software. This allowed many of the normal functions of studio courses to continue in modified form. Students presented their completed work, whether physical or digital, and questions would be posed and answered, and criticism would be delivered. One class on furniture design presented designed chairs by walking around the piece with a laptop running Zoom.

Most learning in the studio does not come from a finished review, but through the individual, tutoriallike individual critiques of work in progress. This course met at its regularly scheduled time and with almost all students present, individual critiques were open to all class members. This helped individual students develop their work, but also allowed some of the verbal criticism to be absorbed by the other participants. This has been described as “the serendipity of the studio.” When students work in the studio outside of class hours, this learning experience is even more valued. Shared workspaces are an important aspect of studio work and learning, and this is consistent with design education elsewhere.

Much of the learning of a studio comes from the explicit or implicit collaboration between studio denizens. The shared time spent allows for interaction and engagement; individuals become friends and learn together. Working separately, as frequently happens in some design disciplines such as graphic design, lowers the impact for this developmental time and does not model the form of design practice of a professional studio environment. Some students in this interior design class opened personal Zoom sessions while working outside of class with their peers. They felt that

it helped them to be able to continue to work as they would in studio, in solidarity, and able to bounce ideas off each another whenever they needed the support.

Another common aspect of design studio classes is in-person studio visits by practicing professionals. One benefit of the pandemic was that operating remotely made it easier for working professionals to participate. Of course, many of the design community were also forced by the quarantine to work from home, but this eliminated any difficulty at having an outside critic participate in a formal or informal session. In this studio, more outside visitors participated in the course with ease from their workplaces and made electronic connections with students to discuss work during non-class hours.

University studio courses also generally provide adequate spaces for learning activities such as drawing tables or interaction spaces. One of the significant challenges for remote learning in studio courses is the lack of a dedicated and appropriate workspace. Working on the kitchen table at home is not the best learning environment but recognizing this challenge and helping students develop a good working environment away from school is an important step.

The physical distribution of supply kits has been suggested for more material-oriented classes such as watercolor and printmaking. Finish samples such as tile or fabric are commonly used in interior design studios. While they were not used in this course, they could be distributed to students in remote courses in the future.

As most design work in interior design uses computer-aided design/building information modeling software for the work, accessing this software on non-college labs has been accomplished through licensing remotely shared with College of Design students. While our information technology staff was able to allow students to VPN into the computers through their own for high end software use, some students were still limited by the speed of their internet

or the inconsistency of their personal computers.

Students' personal computers and internet connections did have a significant effect on the quality of learning. Speed and access limited some students from being able to do the same quality of work as their peers. Economic status seemed to impede student learning more in this virtual environment than in a face-to-face environment. Prepandemic, campus computer labs were always available to any student who did not have the drive space for the software or the means to buy a new computer when theirs failed.

In our experience, synchronous online learning has two major drawbacks: First, if students are sharing a device or internet connection with other household members, the device

and bandwidth needed for effective course participation is limited or not available. Second, some students returned to their home countries and were hindered by the difference in time zones. Both of these challenges will continue in the coming semesters.

There are critical differences between planned, formal, and structured online learning and the informality and personal interaction of studio-based via communication software. For the most part, studios did not change in their methods, being active, problem based and highly personal. The distant connections were made by the communications software used, and this may be the needed initial step for design education to be more fully engaged in educational technology ... but significant challenges still exist.