

Effective Online Teaching Practices during a Covid Environment

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Abstract

Over the last two decades online teaching has had its supporters and opponents. There were those who believe that online education would level the playing field, allowing all portions of the population access to education. There were those who believe that online education could never provide what an in-person experience could or should provide. In March of 2020, the world was handed a situation where arguments were required to be pushed aside and online learning had to become a reality for much of the nation, in order to preserve the health of our school communities.

A year later, educators' experiences in this dominantly online environment have morphed and opinions changed or blurred. What instructional outcomes have emerged from these circumstances which were beyond our control? What are some best practices that congealed from the morass of meddled together theories? What has worked? What hasn't? What if we must teach a really large class? Can one possibly still teach 400 students online and hope for student involvement? Are the suggestions the same for large and small course sizes? These and other topics will be explored as we delve into the new (yet old) environment of online learning during Covid.

Background

Throughout the early 2000's, education over the internet was debated. Some felt it would be a transformative power that would equalize education across time, space, gender, income and nation. Others felt that nothing could take the place of in-person education and anything else was inferior. Some universities jumped on the MOOC bandwagon (Massive Open Online Courses). Others saw no merit in offering massive courses for little or no credit to multitudes of people for free.

There were also many interpretations of online learning throughout the early 2000's. To the point that some argue that 'online' is no longer a helpful adjective for student learning experiences (Fawns 2019). This is especially true in first world nations where cell phones, tablets, laptops, and other internet connected devices are commonplace and blur the boundaries between learning and everyday life. Could not 'exploration' on the internet be just as much learning as flipping through a physical book in the library?

However, the same cannot be said for online instruction or teaching where intentional effort is expended to create an environment where others learn, but through the internet. In today's environment, online teaching is a recognizable category of job expertise for instructors and teachers (Goodyear 2002, Nilson and Goodson 2017). As such, it is understood that to teach effectively, the learning environment must have 'clear learning objectives, carefully structured content, controlled workloads for faculty and students, integrated media, relevant student activities, and assessment strongly tied to desired learning outcomes' (Bates 2019, page 167).

Thus, in this time of Covid, the teacher must be the designer, orchestrator, facilitator, director and deliverer to fully engage the student and create learning in an online environment (Anderson, et. al. 2001). Covid has added an additional environment where now many must act as tutors in addition. However, most instructors were thrust into this online space without experience or instruction. Through this article it is hoped that instructors and teachers will come to realize that effective online instruction must be designed into their course. Additionally, online instruction relies on the knowledge of faculty, but also upon the institutions for which they work to support the professional development of their teaching faculty.

Covid

March 2020, and the lockdown that ensued due to Covid, created an unexpected and required need for previously face-to-face instruction to suddenly be transformed online. Colleges, universities, as well as grammar and secondary schools all had to modify their instruction, down to the modality, all within a few days or weeks. Many of these teachers and instructors had little or no experience teaching online.

Teachers, faculty and staff who may have already been experiencing work or home stress were suddenly thrown into a new balancing act where work and home constraints were now happening at the same time. Teaching from home became the new norm. However, many had never used the internet for instruction before. Additionally, their lack of pedagogical understanding of online design, facilitation and instruction left many at a loss for best practices.

Much of the difficulty may be able to be attributed to the short window of planning and organizing that needed to occur in March 2020. Then once entrenched in those emergency measures, instructors may not have felt it necessary, nor had the time, to modify instructional techniques during the spring of the 2020 school year.

In hindsight the rapid transition in instruction during the lock down crisis was nothing short of amazing. However, there are lessons to be learned and improvements that can be made to improve student learning in on-line environments.

Actions

The crisis that ensued from the pandemic has created various articles and advice on best practices for teachers and instructors; methodologies they can use to replace face-to-face learning with online instruction. These articles propose multiple ideas and ‘tips’. However, how many of these articles is one meant to read? Could there be a summary of smart online tactics that an instructor could use as “cliff notes” to creating a positive online classroom experience? It is in this vein that this article provides support for instructors.

Although technology resources are needed in online instruction, effective teaching needs support from teachers for students, through monitoring their learning processes, just as they would in in-class environments (Anderson 2011). Additionally, teachers need technological support from their administrators. Such administrative support is assumed provided for the purposes of this article. However, due to the newness of the online learning environment for most instructors, pedagogical guidelines for online teaching and learning are not clear (Picciano 2017) and may not be provided. Lastly, the diversity in online teaching environments makes it difficult, if not impractical, to make sweeping recommendations. However, here are a few approaches which when applied can assist in creating a productive learning environment where students can be motivated and actively engage in their learning.

- Pre-recorded vs live lectures – Each lecture format has its advantages and disadvantages, and a similar contrast could be made to one-to-few live tutorials versus face-to-face live lectures for hundreds of students. As such, neither is better in all situations. Instead focus on opening communication with students and creating a strongly student-centered approach in the online classroom.
- Move from being a “sage on the stage” to being a “guide on the side”. - The face-to-face model many instructors have grown accustomed to is extremely teacher centered. Online learning provides the student the ability to review materials and resources multiple times allowing a much more student-centered approach. The instructor should use this to their advantage whenever possible. For example, promote the concept that the student is the owner of their learning process and that they should take time for reflection and be promoted to share that reflection, in the classroom, in breakout rooms, and in assignments themselves. Additionally, do not just rely on teacher-student interaction. Remember and encourage student-student and student-content interactions.
- Opening Communication with students - If this means the instructor meets with smaller groups and/or getting TA or Teacher Assistant assistance to engage smaller groups in the classroom, then so be it. Whatever method is employed, there is a need to communicate with as many students as possible in a method that allows the instructor to actually speak to “a” student, not just the class as a whole. This method has been employed by the author in large enrollment (400+) courses. Although an instructor may not be able to achieve communication with every student. The attempt to reach individual students is often heard and understood. It is also inferred by many students- college, middle and high school - that if the instructor is trying to speak to them individually, then they can reach out individually to the professor as well in such an environment.
- Peer Collaboration – Remember that if we were still in the classroom, instructors would likely break their classes into smaller groups to complete some assignments. For this same reason, successful online courses should consider group-based ‘breakout rooms’ to promote peer collaboration. These types of learning environments also enable the ‘open communication’ promoted in the bullet immediately above as well as the social interaction that is sorely missing from so many lives of our students.

- Understand everyone is adapting – Every instructor, every classroom, every course has different expectations. Students will be trying to adapt to these varying expectations while learning: not an easy feat. Help to reduce student anxiety by eliminating or reducing high stakes assessments. Instead, create multiple lower stakes assessments that will give a more well-rounded evaluation of what the student is able to consistently achieve throughout the semester. This type of assessment tactic will also likely reduce cheating since the impetus to get a good grade on “that one big test” is no longer there.
- Survey your students – Listen to what your students say is working and not working. Survey students anonymously or simply ask for feedback. Some students will readily volunteer what they like and dislike. Additionally, students are often much more aware of current tools and resources which could be valuable assets to the instructor. In this vein, instructors should encourage students to modify tasks to the learning environments available in their own homes. Lastly, instructors should spend a sufficient amount of time to self-critique and to create mid semester modifications. Waiting until a semester is over is a wasted opportunity to help those students you have the opportunity to help right now. In addition, students will feel empowered if they see some of their suggestions implemented in their own classroom.
- Simplify your course – lighten the load and eliminate nonessential parts of the syllabus. It is better to have the students grasp the key components needed to move to the next level, then to quickly graze over all the lighter aspects and thus have them grasp fewer concepts concretely. If there is time at the end of the course, instructors can always add back in higher-level concepts tangential to the true learning necessary for the course.

Accessibility

For students, the most important thing is accessing the information. When in the physical classroom, accessibility is taken for granted, as everything is right there. In an online environment, this may not necessarily be true. Some students may not have the proper devices, the right software or continuously working internet. Additionally, some students may not have a desk, or room or even an area they can consistently rely on to be their “workspace” as they would if they had a dedicated student desk at school.

As such, when designing a course, instructors should think about what students will actually have to accomplish to learn. For example, if an instructor relies on video and a student has shoddy internet, listening to the video or pod cast may not be possible. However, if video and pod cast transcripts are made available, not only will those with hearing impediments be able to learn from the videos and pod casts, but those with internet impediments will too. These kinds of considerations should be taken for all sorts of practicalities. For example, instructors should avoid providing multiple page assignments that must be printed. Instead, ensure that editable assignments are included so that students can include their answers in type, or use the “draw” function, without ever having to print a thing.

Departments of Education in disadvantaged communities may be at a handicap, but they have also been able to assist in multiple ways that may not have been possible in a fully in-class environment. For example, some districts, like New York City, lend laptops to those students who otherwise would not have the electronic capability to access online education from their home. Teachers and administrators in communities such as these and others often make house calls to students who are falling behind to give some of the personal attention that is missing in an online environment. There are even the stories in the news of teachers who notice odd things on their children's screens and save the children from poor conditions. For example, in February 2021, a teacher in Newark, NJ noticed a child in chains and called authorities. The child was in foster care and the foster parent was arrested for child endangerment. (ABC7NY) These interventions might not have been possible, or may have gone unnoticed, in a strictly in-class environment.

Implementation – Done with All Good Intentions, but

Before concluding, a story of failed implementation is important to be added. In this true story, the instructor had good intentions. The instructor attended seminars (ex. Cannizzo 2020) on improving online learning environments and assisting students in improved learning outcomes in synchronous online environments using flipped learning. The instructor's intent was to improve his online classroom instruction and increase student learning. The instructor focused on David "Pengelley's Method" which was originally instituted to teach mathematics on the college level (Pengelley, 2020 and Dunmyre, 2019).

Pengelley's Method promotes the use of pre-class reading, pre-class exercises, discussions of both items in class and then post-class homework. Specifically, the instructor creates pre-class reading and pre-class exercises for each lesson for the students to complete before each class. The students must do both and hand in the pre-class exercises before the instructor holds class. Additionally, the instructor must review the submitted pre-class assignments before class and find the common errors. Then during class time, a "discussion" takes place. In this method, the instructor does not teach a lesson in the traditional method. Instead, the instructor 'teaches' during the 'discussion' where instructor and students delve into the common student errors and misconceptions. The benefit of this method over breakout rooms is the ability to convey the same concept errors to large groups of students at one time, thus implementation in very large classes is possible. To ensure learning, the students then complete a post-class exercise to correctly apply any earlier misconstrued ideas.

Although, intentions were good, by anecdotal student accounts this particular instructor's implementation was a failure. It seems the instructor picked and chose which aspects of Pengelley's flipped learning method worked for him. This instructor's implementation was as follows:

- Students completed pre-class reading and pre-class exercises
- Students could then watch a pre-recorded, asynchronous review of the material
- Students completed a post-class exercise

The flaw with the above design was that nothing was synchronous. The key to Pengelley's method is the *synchronous group review and discussion* of common student errors. Without the synchronous discussion to tease out misconceptions, the students were left to flounder on their own for any remaining questions.

In hindsight, logic would dictate that to apply a learning theory, one needs to apply the theory in a consistent manner to which it was created, not just random parts of it, mixed with some antitheoretical components. The takeaway for other instructors from this anecdote is to ensure one has an overall strategy that is consistent with theory and that intentionally engages all students, regardless of class size.

Conclusion

Successful online learning environments will involve multiple aspects. Instructors should try to provide excellent communication, careful design and active involvement in their online learning environments. Much of this will take additional time to ensure an online classroom provides similar pedagogical impact to the in-class learning of pre-Covid environments.

At some point in the next year, Covid may be behind us, or mostly so, and we may return to our physical classrooms. However, the learning we did as instructors during Covid should not be forgotten since the basis of the instructional learning is very much the same - provide an environment where learning can and does thrive. Instructors have been doing this for millennium in the physical classroom. We will, and are, doing it right now online. And will do it again in our future learning environments which will likely be a meld of the best of both environments for decades to come.

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