

Converting to Online Teaching¹

A series of short guidance articles for educators and institutions

Can Virtual Classes be Better than in Person?²

By John Cable, Director

Project Management Center for Excellence
A. James Clark School of Engineering
University of Maryland, USA

Seismic shifts occur in education when unexpected events force widespread experimentation. Right now, college students have been facing perhaps the most uncertain year of their lives due to closures and restrictions brought on by the COVID-19 virus, with thousands choosing to defer or postpone their studies to avoid taking their classes online.

But students are finding out that deferring or postponing isn't necessary-- virtual classes can be as good, if not even better, than in-person classes. The virtual platforms are fertile ground to explore more *active learning* methods; enabling students to make choices and reflect on their learning individually plus through interaction with their peers and the instructor.

Active learning is an instructional approach that engages students in the material they are learning through problem-solving activities, writing assignments, group discussion, reflection activities, and any other task that promotes critical thinking about the subject. Active learning requires that students do something that develops their skills. This is a substantial shift from traditional classroom teaching models, passive learning, where the teacher provides information that the students dutifully record. Active learning shifts the focus of learning activity to the learner: what the learner does, what the learner thinks, and how the learner behaves. It uses all three learning-style preferences: visual, auditory, and particularly kinesthetic.

Research suggests that people think and process information differently, and using the principals of Universal Design for Learning, educators must redesign courses to meet their students' individual needs. Using a Blended Classroom course design paradigm,

¹This series of articles by the Director of the University of Maryland's Project Management Center for Excellence provides information and advice for converting from traditional in-person classes to online teaching, based on their experience before and during the Covid-19 pandemic of 2020. See Professor Cable's background at the end of this article.

² How to cite this paper: Cable, J. H. (2020). Converting to Online Teaching: A series of short guidance articles for educators and institutions – Can Virtual Classes be Better than in Person? *PM World Journal*, Vol. IX, Issue XI, November.

students watch short lecture videos, complete readings and other assignments plus take quizzes before the virtual class meeting. That allows actual class time to become an *active learning* environment with students who are fully focused and engaged. Whether classes are on-campus or virtual, *active learning* is simply better!

Remote learning is evolving toward more innovative online community-learning approaches that enhance active learning. Advanced video conference systems, such as Zoom, offer the use of breakout rooms. The breakout rooms allow the virtual class to subdivide into separate teams to work on assignments. The teams can be assigned automatically, manually, or the participants may select and enter breakout sessions as they please plus the instructor can drop into the breakout sessions at any time. The teams complete their collaboration efforts by reporting out to the whole class, providing a platform for class discussion. The breakout rooms mimic discussion groups in on-campus classrooms.

Professor Jocelyn Davis, lecturer at the University of Maryland Project Management Center for Excellence, has restructured her ENCE 665 Managing Project Teams class using Zoom breakouts combined with a new online learning platform called Yellowdig, with much success.

Professor Davis' class work is divided into two overarching categories—week-by-week work to be completed outside class, and work done together in their Thursday night Zoom class. Outside class, students get started with pre-work assignments such as watching a series of short videos, supplemental readings, review slides with and without audio, and complete quizzes. There are also some optional pre-Zoom-meeting tasks to complete, like Power Labs and self-assessments, as well as topics to research and discuss on Yellowdig.

Yellowdig is a conversation platform that connects learners and educators. The goal is to create student communities and facilitate organic conversations that will enhance the learner experience and result in engaged students. Engaged students learn more and earn better grades! Yellowdig Communities are private networks where learners interact, allowing discussion and sharing to foster the relationships, skills, and knowledge that allow people to thrive.

“Yellowdig is an opportunity to have an ongoing conversation about the topics,” said Davis. “Students learn from each other, encourage other topics of interest that stem from the course, and go out on branches. While they’re doing that, they’re getting to know each other better.”

With the use of Yellowdig, instead of thinking about Davis' class as just another course, her students think of it as a learning community. The students understand that more of the onus for their learning is on them, they can take more charge of what they're learning, and they can talk about things that aren't necessarily presented in class and get insightful, helpful comments from other students and the professor.

In a survey, Davis' students were asked what they liked most about Yellowdig. They responded:

- "It's a lot more fun than writing a paper. I like being able to see how everyone is processing the class content through the material they post on Yellowdig. I like the clean interface, reward system and filter options."
- "It is a great resource place. Everyone's research is different, and it gives me a lot more articles to go through."
- "The effort people put into posting informative articles increases my knowledge in key topics covered in class."
- "Yellowdig is like Facebook, but more useful because we are sharing articles about whatever is being discussed in class and lectures."
- "I like seeing all the different resources that others find and the ability to select additional reading material if I want to use it."

Students' Yellowdig participation represents a percentage of their grade, and Davis said she is finding that students are helping each other and even posting research she hasn't yet seen.

When it's time for their virtual class, students have completed all their pre-Zoom activities and Professor Davis posts a Zoom agenda to the Learning Management System, Canvas. The class begins with a convening and check-in, and then moves to asking and answering questions for understanding—each segment taking about 10-15 minutes. Then, they split into randomly assigned breakout rooms to discuss topics that change weekly. Students receive instructions for each breakout group topic and begin discussing the topics for about 20 minutes, and then rejoin the class.

The students are taking the class to learn to become project managers who know how to build and maintain an environment in which people are motivated to do their best work and capitalize on the strengths of their team. That's why some of the topics Davis' students discuss are about things like managing time, stress and understanding personality types.

On one Thursday night, one of the Zoom breakout room topics was about time management. Students placed themselves into the "I've got it" group, or the "I don't quite have it yet" group. They explored what time management practices worked well, even for those who were good at it, and what aspects of life got in the way.

After the groups discussed their particular strategies, they debriefed in the large group for 20-30 minutes, sharing common problems related to their topic and best practices for solutions, just as they would if they were in a regular on-campus classroom.

"Students say having these breakout groups is a huge benefit," Davis said. "It gives them the social connection they would not otherwise have in a virtual classroom. I assign a group leader and they decide which group they'd like to be in. The quality of work is excellent. In fact, students continue to rise and what they produce gets better every

week.” Conversations in the video conferences are carried over on Yellowdig and we are seeing conversation threads continue over several weeks, not just in the week of the assigned topics.

One of the main benefits of Zoom breakout groups is that the instructor, or meeting host, can move from group to group to listen to a discussion or gauge a group’s progress. People in a breakout group can return to the main meeting at any time, and everyone in a breakout room has full audio, video and screen share capabilities, as well as the ability to record the session.

Instructors worry that the “group experience” of an in-person class could be lost in the transition to online formats. But Davis and her students have been discovering Zoom breakout rooms’ potential.

- They break the monotony of the instructor being in front of the class, which happens even in some online settings, and promotes self-direction.
- They break from the instructor-learner hierarchy.
- They compel students to search for multiple answers and to assume multiple roles in their group and class.

In a second survey, Davis’ students were asked whether they felt Zoom breakouts supported their learning. They responded:

- “The prior heads-up students get about the session allows them to be prepared on the topic and exchange views between classmates with different thoughts and answers.”
- “It has supported building knowledge of the course and has created more discussion-building time.”
- “The online format enables students to take a deeper dive into the material and be more collaborative with others, even though there’s some wasted time setting up the sessions, screen sharing, etc.”
- “Online learning makes it hard to know the right moment to speak up in a group setting (such that you don’t want to talk over someone else).”

The success of a class taught online depends on whether or not a group of strangers can be turned into a learning community. If students reach a comfort level where they can talk to, question and even challenge their classmates, the discussion will become animated and students will engage.

Davis’ students were surveyed again to compare their Zoom breakout exercises to their on-campus learning experience. They responded:

- “Great opportunity to collaborate and have more intimate conversations with classmates.”
- “I think it’s similar, but it’s easier for people who find it harder to speak up in front of a crowd of people.”

- “The breakout sessions meet the intended objective to facilitate learning, but I prefer to meet people in person.
- “They are pretty much the same, As Zoom keeps adding new features and making existing ones better to use. It feels seamless.”
- “We are able to still have a focused conversation and meet the objectives with less distractions than would be present if in a classroom.”
- Allows a discussion but it is in small groups, so everyone is able to speak and listen to each other.”
- “Zoom breakouts have enabled me to take a deep dive and collaborate with others.

Instructors should plan for a learning curve required for students to use Zoom breakouts effectively. Students are not necessarily always as tech-savvy as instructors might assume.

As expected, some of Davis’ students’ survey responses reflected some mixed reviews about learning in Zoom breakout rooms.

- “It takes a lot of time to set up.”
- “As far as what I like least about using Zoom breakouts, I think it’s the same as in-person.”
- “There isn’t anything I don’t like about it yet.”
- “Due to the new technology, there is some wasted time setting up the sessions, screen sharing, etc.”

Under the current social-distanced circumstances, Zoom breakouts seem to have more advantages than drawbacks. If the instructor accounts for the potential technical difficulties ahead of time and makes sure they implement frequent video conferencing, the breakout rooms increase inclusivity for those removed from the instructor and the classroom. As long as the instructor can devise exercises and lessons to maximize student participation, taking a class with Zoom breakouts can be among the reasons why a student can decide not to defer or postpone their enrollment, but continue their academic journey knowing they will be receiving the preparation they seek.

There are still many unknowns in the face of a global pandemic. Despite the restrictions imposed on college students and faculty by COVID-19, the path toward higher education can continue moving forward. Staying home and waiting it out is an option. But staying home and waiting it out while working on a college degree as part of a supportive community with peers who are all in this together makes more sense.

Previous Articles in this Series

Cable, J. H. (2020). Converting to Online Teaching: A series of short guidance articles for educators and institutions – Facilitating Virtual Classes, *PM World Journal*, Vol. IX, Issue X, October. Available online at <https://pmworldlibrary.net/wp-content/uploads/2020/09/pmwj98-Oct2020-Cable-facilitating-virtual-classes.pdf>

Cable, J. H. (2020). Converting to Online Teaching: A series of short guidance articles for educators and institutions – Blended Learning Classroom Guidance, *PM World Journal*, Vol. IX, Issue IX, September. Available online at <https://pmworldlibrary.net/wp-content/uploads/2020/08/pmwj97-Sep2020-Cable-converting-to-teaching-online-5-blended-learning.pdf>

Cable, J. H. (2020). Converting to Online Teaching: A series of short guidance articles for educators and institutions – The Future of Academia in a Virtual Environment, *PM World Journal*, Vol. IX, Issue VIII, August. Available online at <https://pmworldlibrary.net/wp-content/uploads/2020/07/pmwj96-Aug2020-Cable-converting-to-teaching-online-4-future-of-academia.pdf>

Cable, J. H. (2020). Converting to Online Teaching: A series of short guidance articles for educators and institutions – Tips for Working at Home, *PM World Journal*, Vol. IX, Issue VII, July. Available online at <https://pmworldlibrary.net/wp-content/uploads/2020/07/pmwj95-Jul2020-Cable-converting-to-teaching-online-3-working-at-home2.pdf>

Cable, J. H. (2020). Converting to Online Teaching: A series of short guidance articles for educators and institutions – Video Conference Etiquette, *PM World Journal*, Vol. IX, Issue VI, June. Available online at <https://pmworldlibrary.net/wp-content/uploads/2020/05/pmwj94-Jun2020-Cable-teaching-online-series-2-video-conference-etiquette.pdf>

Cable, J. H. (2020). Converting to Online Teaching: A series of short guidance articles for educators and institutions - Introduction, *PM World Journal*, Vol. IX, Issue V, May. Available online at <https://pmworldlibrary.net/wp-content/uploads/2020/04/pmwj93-May2020-Cable-converting-to-teaching-online-1-introduction.pdf>

About the Author



John Cable

Project Management Center for Excellence
University of Maryland, College Park, MD, USA



John Cable is Director of the Project Management Center for Excellence in the A.James Clark School of Engineering at the University of Maryland, where he is also a professor and teacher of several graduate courses in project management. His program at the University of Maryland offers masters and PhD level programs focused on project management. With more than 1,300 seats filled annually with students from many countries, including more than 40 PhD students, the program is the largest graduate program in project management at a major university in the United States.

John Cable served in the newly formed U.S. Department of Energy in 1980, where he was involved with developing energy standards for buildings, methods for measuring energy consumption, and managing primary research in energy conservation. As an architect and builder, Mr. Cable founded and led John Cable Associates in 1984, a design build firm. In 1999 he was recruited by the University of Maryland's Department of Civil & Environmental Engineering to create and manage a graduate program in project management. In his role as founder and director of the Project Management Center for Excellence at Maryland, the program has grown to offer an undergraduate minor, master's degrees, and a doctoral program. Information about the Project Management Center for Project Management at the University of Maryland can be found at www.pm.umd.edu.

In 2002, PMI formed the Global Accreditation Center for Project Management Educational Programs (GAC). Mr. Cable was appointed to that inaugural board where he served as vice chair. In 2006, he was elected as chairman, a role he held through 2012. As Chair of the PMI GAC, John led the accreditation of 86 project management educational programs at 40 institutions in 15 countries in North America, Europe, the Middle East, Latin America and the Asia Pacific Region. John was awarded PMI's 2012 Distinguished Contribution Award for his leadership at the GAC. He can be contacted at jcable@umd.edu.