
Technology in Practice

Is the Flipped Classroom a Beneficial Pedagogical Practice for Post-Pandemic Teaching and Learning at Community Colleges?

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The COVID-19 pandemic was a challenging time for community colleges. Students and faculty were forced to deal with online learning and cope with the realities of a global pandemic. Simultaneously, educational technologies like Blackboard, Desire2Learn, and Moodle were heavily used to sustain online teaching and to encourage student engagement (Crespin-Trujillo & Hora, 2021; Daneshmand et al., 2022; Omar et al., 2021). Lesser known applications like Zoom, Nearpod, Google Slides, and Slack saw major increases in use (Barry & Kanematsu, 2020; Buttrey, 2021; Moorhouse & Wong, 2021). Faculty also relied on social media and podcasts to supplement their course materials (Mawarni et al., 2020). Due to pandemic-related issues and inequities, there was a need for flexibility on the part of both students and faculty which is still present in the post-pandemic era (Gelles et al., 2020). Instructional modalities such as hybrid, asynchronous, synchronous, HyFlex, and flipped classrooms, among several others, have become commonplace in community colleges (Divjak et al., 2022; Miller et al., 2021) and have the potential to address this need for flexibility in teaching and learning. Given that the pandemic is now winding down, what will we take away from this challenging time in terms of teaching and learning? Can we adapt pandemic-era teaching methods for the post-pandemic period? This paper will reflect on both teacher and student perceptions of participating in a post-pandemic flipped classroom at a local New York City community college and discuss whether it is a beneficial post-pandemic pedagogical practice.

The Flipped Classroom

The flipped classroom is a student-centered, blended learning approach (with both asynchronous and synchronous components) where students are more active than the instructor in the learning activity. The instructor becomes a facilitator, seeking to motivate, guide, and give feedback to students (Bergmann & Sams, 2012; Talbert, 2017). In flipped classrooms, students are typically assigned course materials prior to attending the synchronous class sessions and they participate in some type of asynchronous activity. Classroom time is structured around discussion, collaboration, application of course materials, and completing assessments like quizzes and exams. Students can also ask targeted questions about the course materials. Ideally, this mode of teaching encourages students to become more independent and active learners, who take ownership of their learning (Steen-Urtheim & Foldnes, 2018).

Flipped classroom research suggests four steps to designing a course (University of Texas at Austin, Center for Teaching and Learning, 2023). These include identifying where the flipped classroom model makes the most sense for the course, spending class time engaging students in application activities with feedback, clarifying connections between inside and outside of class learning, and adapting materials for students to acquire course content in preparation for class.

In addressing these steps, I designed an introductory-level course using the Blackboard learning management system (LMS) which allowed students to access information at their own pace and on their own time. All course topics were flipped, which I called a “holistic flip,” and each Blackboard chapter folder had an interactive Nearpod lecture with videos, short quizzes, games and reflection questions, eTextbook readings, and supplemental handouts. This design is in contrast to traditional flipped classroom examples which only flip a few specific chapters or lessons and is therefore more akin to a “flipped-topic” classroom.

Inside and outside class time was designated in this way for each week, which ran from Saturday to Friday. From Saturday to Thursday, students were expected to complete course materials on Blackboard and attend the synchronous class on Friday. The synchronous class session included a mini-lecture with review questions from students, followed by a group work activity and discussion. Group work became an essential component of this flipped course. Students were typically given problem-based activities where they had to apply the course content and make short presentations to the class. Students were able to exchange ideas and give each other support and feedback by working in groups. To support stu-

dents outside of the classroom, weekly office hours and one-on-one consultations were held via Zoom.

The Flipped Classroom Project

To get input from students in this course, I developed a flipped classroom project. I utilized a brief student survey and faculty journal to do this. The survey asked students about the synchronous and asynchronous course components and their perceptions about the usefulness of these components. In the journal, I documented my own thoughts about challenges and benefits of the course design. The project's goal was to investigate whether the flipped classroom can be used to preserve and utilize pandemic-generated teaching materials and engage students in learning.

Findings

Seven out of the 15 students in the class completed the survey. This was the first flipped classroom experience for these students, who were all first-year community college students. Together, the faculty journal and student responses point to a number of benefits and challenges of adopting the flipped classroom as a post-pandemic teaching approach.

Benefits to Students

Students reported several benefits of the holistic flipped classroom, such as having access to information at any time, being better prepared for in-class activities and tests, and being more excited to engage in group work activities when they completed the asynchronous components. Drawing on my own faculty reflections, it was clear that students who were already familiar with online courses were better able to navigate this modality. Also, group work activities allowed students to share knowledge and support others.

Benefits to Faculty

Reflecting on information from the faculty journal, I noted that creating a holistically flipped classroom allowed me to use course materials across semesters and courses. The course materials created for previous asynchronous courses were repurposed for synchronous classes. For example, discussion board questions and problem-based writing assignments were used as group work activities in the synchronous class sessions. Synchronous class sessions became more conversational, discursive, and collaborative, and were less lecture-based. Additionally, because the synchronous class materials matched or extended the asynchronous course materials, it created a sense of continuity between the two spaces.

Challenges to Students

As students reported, the holistic flipped classroom presented several challenges. The most significant of which was that the modality required students to be technologically savvy and have access to a computer or tablet. Students had to remain highly organized and manage their time outside of the classroom. Students frequently put off doing work until the last minute, while others failed to complete course materials prior to synchronous class sessions. Unlike a paper textbook or a lengthy synchronous lecture, asynchronous course materials lacked interactivity, leading to students feeling overwhelmed by them.

Challenges to Faculty

The faculty journal identified several challenges in the course, including a constant need to create new course materials to foster continuity between synchronous and asynchronous learning modalities. For faculty who do not have a large repository of prepared course materials, this becomes an issue. Since course materials were released weekly, this required the faculty to prepare some materials weekly, and it involved updating Nearpod and outdated videos and links. Additionally, when it came to creating quizzes and exams, the faculty had to adjust and create new tests based on the work students actually completed.

When it came to student participation and performance, many students did not consistently access the course materials. Others did not attend the synchronous class sessions, and they treated the course as an asynchronous class. Despite reminding these students that they were graded on both synchronous and asynchronous elements, a small number of them never attended any synchronous class sessions. Finally, students who did not access the asynchronous elements tended to be lost in the synchronous class sessions and consequently did not like participating in the group work activities.

Conclusion

The flipped classroom is a beneficial pedagogical practice for post-pandemic teaching, but there are several factors to consider when deciding whether to implement it. For example, both faculty and students need to be technologically savvy, and access to a computer and the internet is a must. Students should be highly motivated, organized, and have good time management skills to consistently participate in this course modality. Additionally, students who have never taken any online courses need extra support. Some students will treat a flipped classroom as an asyn-

chronous course and not attend or participate in the synchronous class sessions. Grades must be assigned for both asynchronous and synchronous course elements to motivate participation in both modes. Of note, despite having a lot of prepared course materials, faculty members will be required to make many course updates to ensure consistency between synchronous and asynchronous parts of course. Finally, faculty should maintain a system of assessment to evaluate their flipped classroom and make changes based on their own reflections and students' feedback.

In closing, the pandemic saw great innovation and tenacity from students and faculty, leading to more flexible teaching and learning modalities. Through the holistic flipped classroom, remote pandemic teaching materials can be preserved and repurposed for a post-pandemic teaching era. Use of this and other educational technologies represent a new post-pandemic instructional landscape, where higher education is more adaptable, personalized, and better suited to a broad range of students with diverse needs.

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