Apps & Concepts for Flipping the Classroom - 8 Take Aways

Center for Learning and Teaching van Putten
Binghamton University--SUNY, clt@binghamton.edu
Camtasia Studio

Online lectures are an important element of the flipped classroom environment. Instead of giving the same lecture year after year, you are able to craft modular, high-quality, well-structured video lectures that can be used multiple times across different classes. Camtasia Studio is one of the most popular tools for creating online lectures available. Camtasia gives you the ability to record your computer screen and use your webcam and turn those recordings into videos that can be shared anywhere. Other features of Camtasia include the ability to add music, animation, zoom and pan, captions, and call-outs. In-video quizzes can be incorporated to monitor viewing-time and assess comprehension.

Just-in-Time Teaching

Just-in-Time Teaching (JiTT) is a pedagogical strategy in which you use student-performance data to understand which concepts students are struggling. In most JiTT learning environments, students respond to auto-graded assignments which are due before class, such as quizzes on Blackboard. Prior to class, you review student submissions “just-in-time,” and use this data to adjust the classroom lesson to address the students’ needs. Thus, the heart of JiTT is a “feedback loop” formed by the students’ performance on out-of-class activities and the subsequent lectures tailored to their performance.

“Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.” - Flipped Learning Network
Google Drive is a file storage and synchronization service included with BMail. Google Drive can be accessed with any internet-connected device. Google Docs, Sheets, and Slides are productivity apps included in Drive that let you create various online documents, work on them in real time with others, and store them all in one location. The real-time collaboration of Docs makes it an ideal tool for group assignments, revision cycles, shared notes, and creating a more efficient classroom. Everyone will have the latest version of a document without needing to merge edits by multiple users or send files back and forth via e-mail.

Video Assessment Resources, like eduCanon and TedEd, are online environments that can be used to create and share interactive video lessons. You can transform the traditionally passive experience of watching a video into an active experience for students by linking activities that students engage with as the video progresses. Reflective pauses, quizzes, and discussions can be inserted into the content, allowing the video to be segmented into digestible components - increasing student engagement and allowing you to employ just-in-time teaching in your in subsequent in-class session.

Online discussion boards, like in Blackboard, are a great way to begin conversations online before your in-class session. For instance, you could ask your students to find and locate an online resource relating to your current topic and post it to a discussion board, including a beginning analysis of the resource. Then, during your in-class session, you can highlight selected posts or have the entire class discuss the resources and, possibly, rate the quality of each post.

Student Response Systems (SRS), like iClickers, are one method of actively engaging your class. Using the Think-Pair-Share process, you can ask your learners to consider a problem-solving question before you introduce a topic and then have them vote on their choice for the correct answer. Then, after seeing the initial results, individuals can pair with a peer to discuss their answers and vote again. Lastly, as a class, you can discuss the problem, the answers/misconceptions and then introduce the concepts that support the correct answer. You can even ask another similar question afterwards to gauge whether or not your learners have understood the concept.

Virtual Whiteboards, such as AwwApp, Twiddla, and Stoodle, allow students work collaboratively in one virtual location. Just like a traditional whiteboard, a virtual whiteboard can be used for brainstorming or as a shared project space. Some virtual whiteboards also allow for the addition of images, documents, audio, and video files. Others have built-in chat features, which would allow you to conduct virtual office hours or other meetings with students or colleagues. In addition, many whiteboards can be saved or printed for future reference.

Social Bookmarking sites, like Diigo, LiveBinders, or Pinterest, allow you to save, store, group, and share Internet bookmarks online. Collections can be made visible publicly or to specified individuals. Many social bookmarking sites also give you the option of joining a group, following, or being followed by, individuals who collect similar types of bookmarks to your own. Some sites, such as Diigo, allow for annotation and tagging of content. Others, like Pinterest, organize content visually. Students can share bookmarks with you in one central location that you can then incorporate into your future classes.

References and Resources


Photo Credits

- “Clickers for engagement” by Alan Wolf is licensed under CC BY 2.0. Retrieved from https://www.flickr.com/photos/alumroot/5773972918
- “Group work ‘Geopolitical Aspects’” by Lisa Vanovitch is licensed under CC BY 2.0. Retrieved from https://www.flickr.com/photos/38256513@N06/3526237296/


This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-sa/4.0/.