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THE FLIPPED CLASSROOM

Turning Traditional Education on Its Head

Many educators are experimenting with the idea of a flipped classroom model. So what is it and why is everyone talking about it?

ITS INFANCY



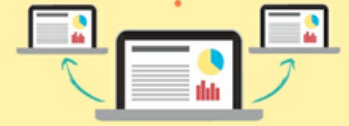
2007: Teachers Jonathan Bergman and Aaron Sams at Woodland Park High School in Woodland Park, CO, discovered software to record PowerPoint presentations



They recorded and posted their live lectures online for students who missed class.



Bergman and Sams were asked to speak to teachers around the country about their methods.



The online lectures started spreading.



Teachers began using online videos and video podcasts to teach students outside class, reserving class time for collaborative work and concept mastery exercises.



[Click here to visit this free resource](#)

Khan Academy is a free online resource for students, teachers, parents, and really anyone wanting to learn. Visit to see available common core resources - mostly math and science videos and learn more about this tool.

Getting started

- Create an account (it's free)
- Visit **Coach and Classroom Resources**.
- I selected **K - 12 math classrooms**.
- A great start for me was **plan and teach with Khan Academy**.
- After using these forms, I checked out **LEARN** in the top left.
- Under the **LEARN** tab, I found videos to help with instruction.

View this sample video showing the probability of making free throws vs. one three pointer. [click here](#)

It's no secret

that more learning happens when students are actively engaged and “doing” in the classroom. **Education reformer John Dewey promoted “learning by doing” back in the 1890s**; over 100 years later, the addition of easily accessible technology in the classroom has ushered in a whole new way to learn by doing. Providing the necessary in-depth teacher led instruction that is so essential in a rigorous classroom with expansive content, limits opportunity for project based, hands-on, student – centered activities and enrichment or “going deeper” in learning. One hot trend addressing this challenge is **the flipped classroom**.

In their article, “Research Says/ Evidence on Flipped Classrooms is Still Coming In,” Bryan Goodwin and Kirsten Miller said, “Some teachers are... creating flipped or inverted classrooms in which they record lectures and post them online.” Direct instruction videos and vodcasts are assigned as homework for students to view and set their own pace for learning and note taking - even having the option to re-view confusing content. “Online lectures can also easily incorporate visual representations, such as interactive graphs, videos, or photos of important historical events,” Goodwin and Miller said.

Mary Draves, Berea Midpark High School science teacher runs a hybrid model of a flipped classroom using Screen Cast-o-Matic to record lectures, a Bamboo Tablet (see page 2) and a wireless headset to record voice, and her own youtube channel to deliver instruction to her students.

“Flipped classrooms provide direct instruction (lecture) as HW assignments in the evening which provides time in class for one on one instruction, labs, and activities that would otherwise not be afforded due to time constraints in the classroom, Draves said.

The Flipped Classroom Continued



A goal of the flipped classroom is to move the teacher from the “Sage on the Stage” lecturing and leading the class to the “Guide on the Side” facilitating learning in a community.

In [“Five Best Practices for the Flipped Classroom,”](#) Edutopia (from the George Lucas Educational Foundation) acknowledges the flipped classroom’s enhanced opportunity for differentiation by using video to scaffold learning or create stations for intervention and enrichment during class time following lecture. However, it also cautions against expecting video taped lectures to be engaging simply because they are technologically current and accessible through devices.

Caitlin Tucker (in reference to the benefit of the flipped classrooms) on her website, [Caitlin Tucker: Blended Learning & Technology in the Classroom](#), states, “The class period has the potential to shift from a space where students are passive observers and consumers in the learning process to a space where they’re actively engaged in a dynamic learning community.”

Some teachers use videos that are already made, free, and available such as the resources at Khan Academy (see page 1) to support their flipped classroom – especially in its infancy. Another approach to slowly apply this structure is to implement recorded direct instruction during class and model note taking and reflection before assigning recorded lecture as homework. Students may find recorded and readily available direct instruction appealing and evidence may show that the class is hitting learning outcomes more fully or at an increased rate.

Draves advises educators considering this model to “Give yourself time to ‘perfect’ your recorded lectures.” She says she has learned to streamline her content delivery and “cut the fat out of lectures.”

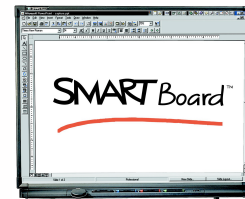
According to Draves, overall benefits include students now having an immediate resource they can review multiple times to increase understanding and retention, and absent students having easy access to instruction.

The flipped classroom may not be a panacea, but it is a great start to implementing more technology for learning outside of the classroom and more student centered activity inside of the classroom.

Hardware Review

SMART Board:

- Interactive whiteboard
- Great for demonstrations
- Touchscreen technology allows use of finger like a mouse
- Strong case for accommodation of varying learning styles - tactile can interact, audio can participate in discussion, visual can see lesson develop on board
 - Creates increased opportunity for distance



ELMO Document Camera

[\(click here for more ideas for classroom usage\)](#)

• Early Childhood Uses

- Show and Tell
- Picture Schedule (show pictures of centers)
- Worksheets - students can view you filling out information

• Middle School Uses

- Completing a graphic organizer as a class
- Model note taking techniques (See Cornell Notes on page 3)
- Demonstrate using a math manipulative

• Secondary Uses

- Model writing skills, editing, revising
- Model chemistry problems, solving physics formulas
- Display textbook, article, or novel



BAMBOO tablet or Boogie Board Sync

- Easily work toward a paperless classroom with either of these tablets
- Connect to SMART Board, iPad, or smartphone (free app for Boogie Board)
- Record notes, drawings, etc for assessment data while circulating
- Especially strong in a flipped classroom or a hybrid of a flipped classroom



