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9 VIDEO TIPS

FOR A BETTER FLIPPED CLASSROOM

Early adopters share how schools can find success with teachers and students alike—even when the technology seems as topsy-turvy as the lessons.

BY DAVID RATHS

In 2007, when Colorado high school teachers Jonathan Bergmann and Aaron Sams began experimenting with recording their lectures in order to spend class time on deeper face-to-face learning with students, they probably didn't foresee the major movement that would grow up around what came to be called the flipped classroom.

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But six years later, the growth in interest remains exponential, suggesting this is far more than a fad. Just since January 2012, the number of active members on the Flipped Learning Network's Ning site has grown from 2,500 to more than 15,000. Members have formed more than 50 related topic groups. The non-profit network, cofounded by Bergmann and Sams, also provides professional development seminars and conferences, and, according to Executive Director Kari

Will teachers make their own videos, curate others' material, or a combination of the two? There are plenty of good, short videos from websites such as [TED-Ed](#) and [Khan Academy](#), and curation sites such as [Sophia](#) allow you to bring in videos, add PDFs, and use Google Forms to ask questions. One teacher recently told Bergmann that he could spend hours looking for the perfect video online or spend the same amount of time creating one of his own. "It really depends on whether

may seem obvious that classroom activities will change, but no one is going to lay out a roadmap. "The important thing is to keep the lower-order things on Bloom's taxonomy to the videos and the higher-order things in class," Bergmann says. "That classroom time is the most valuable time we have with students."

2) Start small. Some teachers try to flip everything at once and end up feeling overwhelmed. Sherry

Arfstrom, is "filling a gap in the education organization world catering to this growing need for information about flipped learning."

Today, it seems, there is no one correct way to flip the classroom, and approaches vary both by subject and educational philosophy. But no matter what the underlying philosophy, creating, curating, and maintaining a trove of video resources is central to success. To help educators who are new to flipping the classroom, *T.H.E. Journal* recently asked several experienced educators to offer their video-related best practices.

1) Devise a flipped strategy. Bergmann, who along with Sams coauthored the book *Flip Your Classroom: Reach Every Student in Every Class Every Day*, says that teachers must start by asking themselves a series of questions about technology and pedagogy:

you have the knowledge of how to do that," Bergmann

Spurlock, a chemistry and physics teacher at **Pekin**

"Video is valuable, but it's just one tool," says math teacher Crystal Kirch. "Flipping is defined by what you do in class and by student-centered learning."

says. "We need to have professional development for teachers to learn how to create videos."

■ What video-creation software should teachers use? Bergmann recommends that teachers start out simple, with a basic tool, but move to more feature-rich (and perhaps more expensive) applications as they get comfortable (see "Lights! Camera! Flip!" on page 17).

■ Bergmann believes that by far the most important question to address is this: What will teachers do with class time if they are not lecturing as much (or at all)? It

Community High School (IL), says that if she had it to do over again, she would pace herself better. "I went out to Colorado and saw what Jon and Aaron were doing and came back and decided to flip all four of my classes in one semester," she recalls. "I jumped in all at once and nearly drowned. Making the videos was a very big time commitment. I would recommend doing it in smaller chunks."

Jeffery Baugus, an algebra teacher at **Woodlawn Beach Middle School** (FL), agrees, and suggests that

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teachers create videos for their top few lessons and see how the students react before plunging ahead. He began flipping not as an experiment but out of necessity, he says. "Four years ago I was a new teacher and midway through the first semester, quiz grades

started to drop and students were not having success doing the problems on their own at home," he recalls. "We needed to spend more time in class working on problems together." Given enough time, Baugus says, teachers should try to get more sophisticated with technology only very gradually.

FLIPPING WITH PARENTS



VIDEO: Graham Johnson's first foray into creating interactive video was aimed at parents, not students. Watch his living FAQ for tips on getting buy-in from parents, and check out the complete, clickable version.

[Click here for the captioned version.](#)

3) Get student buy-in. Although teachers may be enthusiastic about flipping instruction, students may initially react negatively to being asked to watch videos or do other work outside of class. In her flipped class, Crystal Kirch, a high school math teacher in the **Santa Ana Unified School District** in

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learned that taking the time to explain the pedagogy can have a positive impact.

During her first year of flipping, she had some students complain about being asked to do this work outside of class — and some of them put in little effort. “This is so much different than what they do in their other classes that I wanted to get more student buy-in,” she says. So in her second year of flipping, she took time to explain why she flips her class. She even included an explanation of Bloom’s taxonomy and how traditional classes are focused on the bottom two levels of remembering and understanding, but that she was focusing on applying, analyzing, evaluating, and creating.

As part of her plan to get more student buy-in, Kirch asked students for their thoughts about the flipped classroom. On her [blog](#), she posted some of their answers, many of which praise her particular approach for making students parse their thoughts and summarize what they’ve learned. “Instead of mindlessly doing the math,” explains one student, “I can actually think about it and understand it more in words, not just numbers.”

4) Teach students how to watch videos. (Really!)

Bergmann advises that teachers spend some time going over the basics with students. After all, “You don’t

watch instructional videos in the same manner as a popular film,” he says. When he and Sams first started flipping, they gave class tutorials, letting students take turns controlling the pause button as other students

She created a WSQ chart to organize the activities and assignments that students need to complete for each concept. “I get a report on each WSQ assignment in an Excel spreadsheet,” she says. “At the most basic

“I decided to flip all four of my classes in one semester,” says science teacher Sherry Spurlock. “I nearly drowned. I recommend doing it in smaller chunks.”

took notes. They also used class time to work with students on how to write questions about the video as they watched.

Kirch’s approach centers around what she calls the WSQ (“wisk”) framework, which stands for Watch, Summarize and Question. She started hosting her videos and assignments on Sophia, which allows her to embed interactive features using Google Forms. Students watch videos, making use of the pause and rewind buttons to make sure they understand what is being said, and take notes. They then complete a guided or open summary of the lesson online in a Google Form right below the video. She also requires them to develop a question to bring to class. It could be something they are still confused about or a general question about the concept they are studying.

level, I can track who has turned their work in, but I also get feedback about what students were most confused about. I check that before we go to class, and it may guide what we work on, along with the questions they came up with the night before.”

5) Teach parents, too. Sherry Spurlock notes that her biggest roadblock to flipping was parents who didn’t get the concept. “They weren’t seeing the value of it because it is not the way they learned,” she says. Her solution was having parent conferences that explained flipped learning so parents got excited about it, too.

Similarly, Kirch, who blogs at [flippingwithkirch.blogspot.com](#), says she finds it valuable to engage parents. “At first, this was all new to them and they didn’t

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JON BERGMANN'S FLIP TIPS



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CAMERA READY

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"F" IS FOR FLIPPED

Tweaking the flipped classroom model for young learners.

VIDEOS: The coauthor of *Flip Your Classroom* shares his best practices. [Click here for the captioned versions.](#)

know how to support me," she says. To get parents comfortable with the idea, she created a five-minute parent introductory video. She also e-mails an online newsletter to all parents.

6) Encourage (don't punish) students. Bergmann recommends that teachers avoid lecturing in class if they find that students aren't watching the videos. "If half of your students don't watch your video content, don't rescue them by teaching what is already in your video," he advises. "All that will accomplish is to tell the students who did the work that they wasted their time." He suggests having students who didn't do the homework watch videos in the back of the room while the other students get help on higher-level topics.

Graham Johnson, who has flipped his advanced math classes at **Okanagan Mission Secondary** in Kelowna, British Columbia, says his class is louder and more chaotic than a

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regular class. "But it is good chaos," says Johnson, who blogs at flippingmath.wordpress.com. During each period, he has a structured segment in which he goes over problems with the students as a whole group. Then there is flextime, when they can work on whatever they want. (He allows students who haven't watched videos at home to do so during flextime.)

LIGHTS! CAMERA! FLIP!

In the early days of the flipped classroom, Flipped Learning Network cofounders Jonathan Bergmann and Aaron Sams found video-creation software awkward and clunky. Fortunately, that's not true anymore, says Bergmann, who adds that while some tools can get pricey, even free ones can be good. On his website, he lists a handful of screencasting programs to consider:

- [Screencast-O-Matic](#) (free, web-based)
- [Jing](#) (free, available for Mac or PC)

This year he has started a "genius hour," based on Google's "20 percent rule," which gives employees time to explore their interests. "It is a time for them to innovate and work on anything they'd like related to math and are passionate or curious about," he explains. One student, for example, used his time to show how math related to card counting in casinos.

7) Don't use videos as the only engagement tool.

Baugus recommends moving beyond a blog with just videos, because students may eventually perceive it as stale. He has moved to a WordPress website featuring multiple sections including a rundown of common errors and a Harry Potter-themed class competition. The site is also more responsive to mobile devices than a plain old blog. "A lot of our students watch videos from their mobile phones," he says. Spurlock also noticed that, once her school started making the Blackboard LMS available through [Blackboard Mobile](#)

- [Educreations \(free, web-based\)](#)
- [Adobe Presenter \(cost depends on platform\)](#)
- [Snagit \(\\$50, available for Mac or PC\)](#)
- [Camtasia Studio \(\\$99-\\$150, depending on platform\)](#)
- [ScreenFlow \(\\$99, available for Mac\)](#)

Instructional technology staffers can help teachers find the best solutions for their school's IT infrastructure. Most teachers who are all-in on flipping tie their videos and formative assessments in to their LMS to boost interactivity and allow for instant feedback from students, Bergmann says.

At **Clintondale High School** in Michigan, every class is a flipped class, and software is not a one-size-fits-all affair. According to Principal Greg Green, "On the one hand, we had to take teachers out of their comfort zone, because what we were doing wasn't working. Students needed more support." But in the technology realm, he realized that Clintondale needed to make evolutionary changes that focused on ease of use for teachers.

Green had his teachers start with premade YouTube videos and simple screencasting software such as Jing and Screencast-O-Matic. As teachers got more comfortable, they could move to more robust programs like Camtasia. For those who have difficulty making good videos, Green recommends a tool such as the [FrontRow Juno](#) lecture-capture system. It can record lectures during class and allow teachers to edit that material to be used for flipping. "With enough of those, you develop a nice collection of videos as you do your natural classroom work without having to set aside quiet time to record them all," he says.

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