

flipped learning

GATEWAY TO STUDENT ENGAGEMENT

JONATHAN BERGMANN
AARON SAMS

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Preface

As the first days of school began in 2006–07, we—Aaron Sams and Jonathan Bergmann—arrived to teach science at Woodland Park High School in Woodland Park, Colorado. Jon came from the Denver metropolitan area and settled into Room 313; Aaron came from the greater Los Angeles area to occupy Room 314.

We both had taught chemistry at our previous schools, Jon for eighteen years and Aaron for six. Since we represented the entire chemistry team, we decided to work together to develop a strong chemistry program at Woodland Park High School. Though we were very different in our approaches to teaching, we had similar philosophies: we both wanted to put our students first so they could develop both cognitively and affectively. Our decision to work together created a culture of collaboration and reflection that helped us as we explored ways to use technology to enhance learning.

During the 2006–07 school year we taught traditionally, using a great deal of direct instruction in an engaging lecture style. As part of our collaboration, we decided to use common assessments and experiments so that our students would have a similar experience regardless of which chemistry teacher they were assigned. We met on a regular basis to reflect about best practices and about how to integrate technology into our classes. These voluntary meetings grew out of the fact that we worked together well and realized that two heads are better than one.

One frustration we encountered while teaching at this small school was the large number of absent students caused by school activities. Woodland Park is situated 20 miles and 2500 feet above Colorado Springs. The road to Woodland Park is a winding mountain pass, which made travel to school activities a time-consuming challenge: it took 45 minutes to reach the nearest school of comparable size. This commute to events caused students to frequently miss the last class of the day, and missing a difficult subject such as chemistry set those students back.

In the spring of 2007, Aaron discovered a review of a computer program that recorded PowerPoint lectures, including digital “ink” with which a lecturer could write on the screen as well as an audio component. At this point we were ready to dive into the world of teacher-created video. Ken Boyer, chairman of the Woodland Park High School science department, agreed to contribute \$100 for two copies of the software. As they say, “The rest is history.”

First we used the software to record live lectures. The assistant superintendent in charge of curriculum and instruction in the Woodland Park School District took note and came down for a chat. Her daughter was attending university, and one of her daughter’s professors was recording the audio of his lectures. She told us that her daughter loved this model because “she didn’t have to go to class anymore.” Later that week, a lunch-time conversation about that interaction ensued, and we asked ourselves: “What is the value of class time if a student can access all the content while not attending class?” Then we asked: “What do students *really* need a physically present teacher for?”

As the conversation continued, Aaron said, “What if we stopped lecturing in class and pre-recorded all of our lessons? Then, in class, students would do the stuff that they used to do at home?” Jon said, “OK, let’s do it!” After this exchange, neither of us ever used direct instruction as a whole-group, in-class teaching tool again.

During this time of development, we shared what we were doing with a group of teachers online. We had been active on the AP Chemistry listserv for many years, using it to connect and learn from other AP Chemistry teachers from around the world. This group became our sounding board as the concept of the flipped classroom grew. Other teachers who were also experimenting with video as an instructional tool began to emerge, and an informal professional network began to form. The flipped classroom was not born in a vacuum; it was not developed only in Rooms 313 and 314 at Woodland Park High School. Though

we were pioneers in developing the flipped classroom, it would have never happened without this broader network of amazing teachers. Eventually, with the partnership of Jerry Overmeyer at the University of Northern Colorado, an online community for educators interested in the flipped classroom was born. This community, the Flipped Learning Network (flippedclassroom.org), has grown exponentially in recent years. As of this writing, it has a membership of over 20,000.

The idea of the flipped classroom is really quite simple: direct instruction is done through video, or some other learning object that students can use individually prior to coming to class. This time shift then allows the teacher to use class time for work that is either better done as a large group, or that requires individualized teacher attention. That's the flipped classroom in a nutshell: direct instruction delivered to the individual outside of class, and more strategic use of in-class time for group work and individualized attention. We soon found that we had stumbled onto something that could radically transform our classrooms into something we had never dreamed they could become.

Much of this is chronicled in our first book, *Flip Your Classroom: Reach Every Student in Every Class Every Day*, (Bergmann & Sams, 2012). In the first half of that book, we explained the flipped classroom. The second half tells how we were able to implement a mastery model called the "flipped mastery model." In the flipped mastery model, students work asynchronously through objectives (competencies) as they master content.

Since the publication of *Flip Your Classroom*, we have continued to refine the flipped classroom process, along with thousands of educators in the flipped class community. The original flipped classroom concept changed how teachers delivered content, but it was a strategy that was narrowly focused on delivering content efficiently. A flipped classroom didn't ensure a student-centered classroom. Learning in a flipped classroom was still very much teacher-centric. Even the flipped mastery model was still quite teacher-centric, albeit student-paced.

This book will take you to the logical next step in the evolution of the flipped classroom—flipped learning—a path toward powerful learning and teaching strategies that can transform learning by engaging each student and taking their learning deeper and further.

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