



Flipped Classrooms, by Kristi Burch

### **What do we mean by “flipping the classroom”?**

Educators have been ‘flipping’ the classroom for decades, but may not be aware that their methodology is considered an innovative teaching strategy. When class time is dedicated to discussing the material and sorting out discrepancies in student comprehension, the focus tightens on student learning. So what does flipping the classroom really mean? Is there a right way and a wrong way to flip the classroom? Is THE flipped classroom a myth? You will find as we explore flipped classrooms, the approach faculty take when making this innovative change will vary greatly and have an array of results.

Dan Berrett (2012), says flipping “takes many forms, including interactive engagement, just-in-time teaching, and peer instruction.” The most important thing to consider when flipping the classroom is what you want your students to gain from this experience; what do you want them to learn? There is no right or wrong way to flip the classroom, no rules to follow.

In essence, the term, ‘flipped classroom’ describes the pedagogical practice of switching the lecture and homework portions of a course through varied delivery mechanisms.

A flipped classroom could also be referred to as blended learning, reversed instruction, inverted classroom, and 24/7 classroom (Bergmann, J. & Sams, A., 2012, pp. 7). The specificity of the method is not unique, yet the modern terminology helps turn faculty and student attention toward the practice of engaging in innovative teaching and learning strategies.

In a common flipped classroom design, students are often exposed to lecture screencasts or recorded lectures via video or podcast outside class time, leaving time for hands-on activities that help develop ideas and promote engagement with the material during critical class sessions. Keep in mind that limiting your own vision of the flipped classroom to assigning videos could deter the ultimate mission. The goal of flipping the classroom is to engage students, helping them gain the most benefit from the face-to-face interaction time they have with their peers and the professor. To achieve this goal, Katie Ash (2012) states, you must “be intentional about what portions of your class you “flip” and when.”

This might mean assigning students to conduct a scavenger hunt, webquest, interview, observational experience, or debate, depending on the class and the desired results for in-class discussion and activities. The variety with which instructors can “flip” the course content allows them to tailor educational experiences to each individual, focusing attention where needed on applying knowledge through active learning techniques in the classroom.

### **Why flip the classroom?**

A flipped classroom helps to increase student inquiry and involvement, promotes active learning, problem-solving techniques, and critical thinking skills by placing focus on practical application of the material, rather than regurgitation of material read in a textbook. When students are given the tools they need to explore, gather, and study material away from the class, they come to class more prepared to contribute to discussions and group activities. This methodology can greatly increase motivation for learning as students are working on homework in the classroom with additional support, collaboration, and one-on-one practice for complex ideas that need further explanation (Tucker, 2012).

Students watching videos at home are able to learn at their own pace and the instruction meets them where they are. With the ability to pause, rewind, and replay instructor videos, students can deepen their understanding of material through repeated exposure to lecture material, resources, and related social media. The application of that material becomes increasingly richer when class time is then devoted to breaking down concepts and misunderstandings.

### **Enhancing student learning, promoting engagement, and increasing motivation**

A flipped learning environment helps promote an atmosphere of sustained engagement by providing an active learning space conducive to exploration of complex concepts and inquiry. Greater emphasis is placed on student involvement in their own education as the focus shifts from instruction to learning. The “sage on the stage” has become a “guide on the side” (Pacansky-Brock, 2013), as educators are employing new methods to help motivate advanced students to become actively engaged in class discussions while increased focus can be placed on students who are struggling.

These methods not only put more responsibility in the hands of the students, but they also allow instructors to more effectively use their pedagogical skills during class sessions to help students apply their learning through active learning techniques, collaborative group work, and engaging discussions.

“Flipping the classroom is more about a mindset: redirecting attention away from the teacher and putting attention on the learner and the learning” (Bergmann, J. & Sams, A., 2012, pp 11). When this shift occurs, the classroom dynamics alter in such a way that learning takes on an investigative quality that promotes motivation in many students. The classroom can transform into a community in which students are invigorated with vibrant discourse and engrossing class projects. Creating a realm of relevance toward which students can subject applied knowledge and skills will often boost motivation for learning beyond the classroom.

One of the greatest opportunities that arises from flipped classrooms is the ability to design the course to meet both your own and the students’ needs. The design can include little-to-no technology, be a fully online class, or anywhere in between. However, technology is becoming an increasingly necessary addition to the learning process; and whether it is a decked-out technology classroom, mobile device, laptop at home, or virtual presence, students have come to expect a certain level of accessibility. It is

important for instructors to understand the technological expectations of the millennial generation, while weighing the benefits of incorporating certain aspects of technology with the desired learning outcomes. The technology included in any course design, flipped or otherwise, should be used as a tool to enhance learning or the process by which students learn.

Without a clear understanding of the mission and learning objectives, the concept of a flipped classroom can be lost in a whirlwind of misguided technological show and tell. It should be stated that technology is not a requirement of a flipped classroom. In fact, technology can often become a hindrance to student learning objectives when the focus shifts from learning to ‘tinkering’ for the sake of incorporating the latest and greatest technological enhancements to your class. Technology should be implemented in a way that reinforces the learning or provides significant value to the course or material.

### **Requirements for a Flipped Classroom**

Learning objectives are of paramount importance in a flipped classroom; students need to know what you are doing, why, and what you expect of them. We are all accustomed to providing our students with a syllabus and general expectations for the course, assignments, and learning objectives, but the level of expectation in a flipped classroom can alter our level of preparation.

Students can easily become disconcerted when their learning environment and methods change dramatically without ample explanation, reasoning, or clearly stated learning outcomes. This is not to say that every student needs a learning alteration coach, but instructors should be cognizant of student response and learning needs when migrating to innovative teaching strategies such as a flipped classroom.

Brian Bennett states that “Flipped learning does not have a how-to list associated with it”, but it does need to encompass four key elements in order to be effective.

Flipped learning:

1. requires intentional content
2. shifts the learning culture in schools
3. demands a flexible environment
4. requires professional educators (Bennett, 2012).

By providing students with specific learning objectives and goals, the active learning concepts can be properly translated into the classroom for increased engagement.

## Practical application

The methods in which instructors choose to implement delivery of the material vary greatly. One instructor may video him or herself as well as screencasts using applications such as Camtasia ([www.techsmith.com](http://www.techsmith.com)), while another may simply provide students with access to Google Docs ([docs.google.com](http://docs.google.com)) for collaborative student work both inside and outside of the classroom. Other common tools for screencasting and podcasting are:

- Jing ([www.techsmith.com](http://www.techsmith.com))
- Screen-Cast-O-Matic (<http://www.screencast-o-matic.com/>)
- Screenr (<http://www.screenr.com/>)
- Audacity (<http://audacity.sourceforge.net/>)

Though there are many available tools, we have found these to be the most reliable, user-friendly, and compatible with our environment. By creating lecture recordings and making the instruction available for students to access virtually anywhere, the learning experience expands beyond the classroom, helping to transform the learning culture.

The flexibility a flipped classroom provides can often inspire instructors to create a hybrid of a flipped and traditional classroom. For example, an economics professor may lecture for the first 15 minutes of class, then break students into groups to have them discuss their chosen country and develop an economic plan during the remainder of the class period. Having pre-recorded and posted his lectures online using screencasting technology, students can access and review the lessons if they get stuck.

Math instructors may record lessons explaining concepts, formulas, or procedures such as the instructors in this example have done. Students have the ability to pause the instruction as needed to practice the homework examples to be prepared for class. The in-class portion could consist of small groups of students working through the homework assignments together, assisting one another with the problems, and working out the problems in real time with props or through interactive games, but all with the instructor available for assistance and guidance.

This next illustration is of an anatomy and physiology class that has been flipped. Watch how they do it. The students are experiencing real world application of the material they are learning, which helps them stay actively engaged in the concepts and how they affect their lives.

## Challenges

We have all experienced students who simply lack motivation and consistent effort when it comes to homework assignments and group participation. So what changes when we flip the classroom? Do these students suddenly start participating and gain motivation? Not necessarily. So we are stuck with

the same problems we had prior to flipping the classroom, wondering why we decided to put in all this extra effort to no avail?

This is a common challenge educators face, yet many find that a flipped classroom provides even the least motivated student with engaging techniques and the personal attention needed to improve over time. Student expectations are often linked to motivation, so stressing the reasons for implementing this type of pedagogical approach, the value for student learning, and specific student learning outcomes can help alleviate unrealistic expectations.

The fallacy that flipping the classroom puts most of the work on the student, leaving instructors with little involvement in the educational process is often held by both instructors and students. In reality, flipping the classroom requires about twice as much preparation work as a traditional class does. Many instructors are unprepared for the volume of research and foresight required for designing a flipped classroom environment, as well as the need to quickly think on one's feet in class when answering questions about the material.

Student misconceptions can often lead to frustration and a lack of early adaptation to the new learning structure. Again, it is imperative an open line of communication exists when it comes to student expectations and learning outcomes to help avoid some of these setbacks. Clearly stating your learning objectives, and subsequently finding creative and engaging ways to help them achieve those objectives, both inside the classroom and out, will often prevent negative student feedback.

## **Conclusion**

If you've gotten this far, you probably have determined that flipping the classroom is not only a lot of hard work, but it has significant educational benefits for increased student learning. By decreasing the focus of rote instruction and tailoring the educational experience toward student-centered learning techniques, the level of student engagement and motivation ultimately increases.

Students are given the opportunity to explore the world around them with fresh perspectives, while learning how to apply their knowledge in practical ways through active learning exercises with their peers and their instructors in engaging in-class discussions and activities. Flipped classrooms provide students with alternative methods of gathering, retaining, and expressing their knowledge that assist them in becoming fully prepared for the world around them.

## **Additional Resources**

Bennett, B., Kern, J., Gudenrath, A., McIntosh, P. (2012, May 3). The Flipped Class What Does a Good One Look Like? (3 of 3) The Daily Riff – Be Smarter. About Education. Retrieved April 16, 2013, from <http://www.thedailyriff.com/articles/the-flipped-class-what-does-a-good-one-look-like-692.php>



This is part 3 of 3 in a web series, but the start of the flipped conversation on this site. Starting with looking at the basic structure of a flipped classroom, the lecture and homework portions being flipped, we can see that is just a beginning. They provide a very helpful list of characteristics that many flipped classrooms share, including student-led discussions, active learning, collaboration, and critical thinking skills.

Bergmann, J. & Sams, A. (2012). *Flip Your Classroom Reach Every Student in Every Class Every Day*. Washington, DC: ISTE.

This book is an easy read with a wealth of information linked directly to the Flipped Learning Network. It talks about what it means to flip the classroom, why you might want to do so, and how you might get started. It also goes into discussing challenges and benefits for flipping the classroom and expectations you will develop for your students through the flipped mastery program. Available in CTL.

Bergmann, J., Overmyer, J., & Wilie, B. (2012, April 14). *The Flipped Class: Myths vs. Reality (1 of 3)*. *The Daily Riff- Be Smarter*. About Education. Retrieved April 16, 2013, from <http://www.thedailyriff.com/articles/the-flipped-class-conversation-689.php>

Part 1 in this series defines a flipped classroom, really breaking down what it is and what it is not. For example, they reference the lecture and homework sections of class being flipped, but state that it doesn't end there. According to them, a flipped classroom is NOT: replacing teachers with videos, an online course, or a structure-less environment; but it IS: a blending of direct and constructivist learning, personalized, and an interactive learning environment for students.

Spencer, D., Wolf, D., Sams, A. (2011, June 24). *Are You Ready to Flip? (2 of 3)*. *The Daily Riff – Be Smarter*. About Education. Retrieved April 16, 2013, from <http://www.thedailyriff.com/articles/are-you-ready-to-flip-691.php>

Part 2 in this series talks about best practices in flipping the classroom, which is particularly useful when just starting out. They stress the importance of knowing what you want your students to learn; have learning objectives ready so the flipped classroom design will conform to those goals. The other part that is imperative to this process, as they discuss, is making sure the in-class portion is filled with interactions and projects that help students achieve desired learning objectives while remaining engaged with the material and each other.

Truss, D. (2011, April 24). *3 keys to a flipped classroom*. *Connected Principals*. Retrieved April 19, 2013, from <http://connectedprincipals.com/archives/3367>

In this article, David stresses that this is just one method of teaching, and he encounters some of the same issues in a flipped classroom that he does in a traditional classroom. That being said, he offers three suggestions to narrowing the focus of a flipped classroom: homework, lesson quality (depth vs breadth) and (how vs why), and production quality. The common theme in each of his three keys is engagement – keeping students engaged in their work from start to finish.

Venable, M. (2011, November 8). Flipping the Classroom: An Introduction. Online College.org. Retrieved April 16, 2013, from <http://www.onlinecollege.org/2011/11/08/flipping-the-classroom-an-introduction/>

In her article, Melissa gives an introduction to what "flipping the classroom" means. She gives some examples such as lecture capture, podcasting, vodcasting, and videoconferencing, as well as some of the benefits and challenges associated with incorporating online learning elements. Venable talks about benefits such as increased student engagement, but also touches on challenges such as lack of available resources.

Flipped Learning Network – This site houses information and links on flipped learning, networking conferences, events, news, and other resources. Definitely check out the Resources Page.

Flipped Classroom -This site is also a part of the Flipped Learning Network (FLN). It's the learning community for FLN. This is a great resource for users interested in networking with other instructors who are flipping their classes.

Screenrecasting/Flipping - This site walks you through creating and setting up online videos using technology called screenrecasting. Overmyer suggests several screenrecasting software tools which are great options. He also goes through a typical class session in terms of time spent on specific activities to give you an example of what a flipped classroom looks like.

## References

Ash, K. (2012). Educators View 'Flipped' Model With a More Critical Eye. *Education Week*, 32(2), S6-S7.

Bennett, B. (2013, April 5). "Flipped classrooms": You keep using that word... *SmartBlog on Education*. Retrieved April 19, 2013, from <http://smartblogs.com/education/2013/04/05/flipped-classrooms-you-keep-using-that-word/>

Bergmann, J. & Sams, A. (2012). *Flip Your Classroom Reach Every Student in Every Class Every Day*. Washington, DC: ISTE.

Berrett, D. (2012). How 'Flipping' the Classroom Can Improve the Traditional Lecture. *Chronicle of Higher Education*, 58(25), A16-A18.



Pacansky-Brock, M. (2013). *Best Practices for Teaching With Emerging Technology*. New York, NY: Routledge.

Tucker, B. (2012). The Flipped Classroom. *Education Next*, 12(1), 82-83.