

The Flipped Classroom Strategy

What Is it and How Can it Best be Used?

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WHAT IS THE FLIPPED CLASSROOM?

In K–12 and higher educational circles, the “flipped classroom” instructional strategy (also known as the “inverted classroom”) has been receiving a lot of attention. The idea is that rather than taking up limited class time for an instructor to introduce a concept (often via lecture), the instructor can create a video lecture, screencast, or vodcast that teaches students the concept, freeing up valuable class time for more engaging (and often collaborative) activities typically facilitated by the instructor. It is important to note that the strategy should involve more than just the “take home” video lecture (or screencast or podcast). It should also incorporate formative and summative assessment, as well as meaningful face-to-face (F2F) learning activities. Although many instructors at all educational levels and from various settings have been incorporating this strategy for years, the term is most often attributed to two Colorado high school teachers, Jonathan Bergman and Aaron Sams, who began creating screencasts and podcasts for their students in 2006 (Makice, 2012).

The flipped classroom strategy advocates tout numerous benefits. Most seem to be plausible advantages (e.g., increases

time for more engaging instruction), especially for those teaching in hybrid or blended settings consisting of some combination of F2F and online instruction; however, the strategy also has its limitations. First, the quality of the video lecture may be very poor; even though an instructor might be outstanding in F2F settings, he or she may not produce a quality video instructionally and/or technically. Second, taking for granted that all students are able to view the video lecture on their own computers, the conditions under which they might view the video may not be the best for learning any concepts (e.g., a student might view a video while also watching a baseball game and listening to music). Arguably, there are many distractions in F2F classrooms, but at least the teacher can monitor comprehension with several formative assessments. Third, students may not watch or comprehend the video and therefore be unprepared or insufficiently prepared for the more engaging activities that will occur F2F. Fourth, students may need a lot of scaffolding to ensure they understand the material presented in the video. Although good instructors will likely build-in effective scaffolding activities while students watch the video such as “stop, think, and

answer” questions (and also rewind if needed), they may still fall short in providing enough scaffolding activities for all types of learners. Fifth, students are not able to ask questions of the instructor or their peers if they watch the video alone. Therefore, important just-in-time questions to help them comprehend the material cannot occur unless the instructor is available during the viewing—which is difficult. Finally, the flipped classroom strategy may not be the best approach for second language learners or those with learning challenges—which represents learners not only at the K–12 level, but all educational levels and settings.

HOW CAN THE FLIPPED CLASSROOM STRATEGY BEST BE USED?

Although there are many limitations to the flipped classroom strategy and no empirical research exists to substantiate its use, anecdotal reports by many instructors maintain that it can be used as a valuable teaching strategy at any educational level, depending on one’s learners, resources, and time. Moreover, it seems to be a good fit for teaching knowledge that is procedural, one of the four general types of knowledge described in the revised Bloom’s Taxonomy (Anderson et al., 2001). Procedural knowledge is knowledge about how to do something. Therefore, a flipped classroom video lecture about how to solve a quadratic equation in which an instructor describes and models how to solve this type of problem would be a good use of the strategy. Complex procedural knowledge can also be taught utilizing the flipped classroom strategy although scaffolding and chunking of content will be very important not only to ensure that videos are short, but also to make certain that all of the steps of the procedure are intro-

duced adequately so students understand it thoroughly.

Although procedural knowledge is arguably the best type of knowledge to teach using the flipped classroom strategy, the other three types of knowledge—factual (knowledge describing the basic and essential elements a person must know), conceptual (knowledge of the relationship between classifications and categories), and metacognitive knowledge (knowledge about one’s own cognition)—can also be taught using this strategy. However, it is important to note that much more time and thought will need to go into employing the flipped classroom strategy.

Many resources exist regarding the flipped classroom strategy. A few are:

- Educause article, *7 Things You Should Know About ... Flipped Classrooms*: <http://net.educause.edu/ir/library/pdf/ELI7081.pdf>
- Edutopia blog entry, *Five Best Practices for the Flipped Classroom*: <http://www.edutopia.org/blog/flipped-classroom-best-practices-andrew-miller>
- Khan Academy—has many videos on a variety of topics: <http://www.khanacademy.org/>
- Knewton—has a good graphical representation of the flipped classroom strategy: <http://www.knewton.com/flipped-classroom/>

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- Makice, K. (2012, April 13). Flipping the classroom requires more than video. *Wired*. Retrieved from: <http://www.wired.com/geekdad/2012/04/flipping-the-classroom/>