

1096-E1-2474      **Edwin P Herman\*** (eherman@uwsp.edu), 2001 Fourth Avenue, Department of Mathematical Sciences, University of Wisconsin-Stevens Point, Stevens Point, WI 54481. *More than just a video – flipping the classroom to improve student learning.* Preliminary report.

I decided to flip my spring 2013 section of Calculus I to increase the amount of class time for student work. I was already using half of my class time for students to solve problems; by placing part of the lecture material in a video I figured that students could work and present more in class and better grasp the material. Unfortunately, this did not occur – in spite of the extra time, students did not present more board work, and performance on exams did not seem better than previous classes. A survey at the end of the semester indicated one possible reason: less than 30% of the students reported that they watched most of the videos.

Those who did watch the videos reported that they were quite helpful, so I decided to try again for my summer section. This time I used multiple short videos each day instead of one longer one. I also modified the order of topics a little, introducing some concepts much earlier than the textbook. To encourage students to watch the videos more often I added a daily homework component to the course. As a result of these changes, the “watch rate” reported by students increased dramatically, with student feedback still extremely positive. More importantly, student performance (both board work and exam work) improved on many topics. (Received September 17, 2013)