And then there's this:

## Lectures Aren't Just Boring, They're Ineffective, Too, Study Finds

http://news.sciencemag.org/education/2014/05/lectures-arent-just-boring-theyre-ineffective-too-study-finds

The author of the described meta-analysis (Scott Freeman) visited us this past year and spoke in the SMB weekly research seminar about his work.

To weigh the evidence, Freeman and a group of colleagues analyzed 225 studies of undergraduate STEM teaching methods. The meta-analysis, published online today in the Proceedings of the National Academy of Sciences, concluded that teaching approaches that turned students into active participants rather than passive listeners <u>reduced failure rates</u> and boosted scores on exams by almost one-half a standard deviation. "The change in the failure rates is whopping," Freeman says. And the exam improvement—about 6%—could, for example, "bump [a student's] grades from a B– to a B."

From: Hines, Steve Sent: Monday, May 12, 2014 4:14 PM To: Subject: CVM Teaching Academy: Flipped Classrooms - Old or New?

## CVM Teaching Academy members and friends,

As we've noted before, you can hardly open your email or go online anymore without seeing the words "*flipped classroom*". It seem everyone is telling us we should be "flipping" the way we teach.

I've got to admit that I am fascinated with the prospect. After all, I think almost everyone would agree that teaching is best when you're working with a group of students who are well PREPARED and actively ENGAGED. Does it get any better? Not for me anyway.

But I must also admit to being cautious, especially of wholesale adoption. Flipping a classroom is not as easy as some make it sound. I also worry what happens in our busy curricula, especially if a whole bunch of instructors start to flip their teaching. Almost immediately, we'll start to run up against **each other**, just as we already run up against our students' crazy schedules. Scheduling even more of our students' time with pre-class assignments is likely to create new problems – at least in the DVM curriculum where there are multiple exams almost every week starting about week #4 of a semester.

Nevertheless, <u>the short essay below in Tomorrow's Professor</u> has some nice reminders. I like also that the author points out that (**a**) the basic tenets behind "flipping" are really not new and (**b**) it's not necessarily easy – especially to do flip a classroom well. Those in our college who have jumped in will attest to the latter. If you have just a couple of minutes, I recommend you read the entire essay (just 991 words).

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Next week (May 19-20), the CVM Teaching Academy will be hosting a workshop focused on one of the fastest growing "flipped classroom" methods. It's called **Team Based Learning or TBL**, and has been employed widely in medical, veterinary, and STEM programs. Among the advantages is that TBL can be employed in large classroom settings and does not require a large number of instructors/facilitators. Most TBL instructors report that they use it very effectively in theater style classrooms working alone or with just a single TA or colleague.

I hope many of you will join us next week in this active learning workshop. I think you will be intrigued and that you will come away with enough background to at least consider a small trial in your own classroom. I am also confident you will enjoy <u>Dr. Holly Bender</u>, our workshop leader from Iowa State University CVM. She is a much decorated teacher who has recently moved into ISU's Center for Excellence in Teaching & Learning.

Best wishes, S

Tomorrow's Teaching and Learning: Stanford University

## Flipped Classrooms - Old or New? <u>msvinicki@austin.utexas.edu</u>

There has been a lot of buzz in higher education lately about the flipped classroom model for teaching and learning. I am a strong believer in the underlying theories that support the structure as a good one for learning. I thought a little rumination on the process might help before instructors adopt it completely. It's not as easy as it appears, and it's not as new as others would have us believe.

Perhaps the most important assumption of the flipped classroom (or really any of the many new instructional models being used today) is the idea that **learning is strongest when the learner is actively involved in the creation of understanding and the application of understanding to real problems**. There is really no argument about this tenet - **Active learning is best**. Read more (991 words total) at <u>http://cgi.stanford.edu/~dept-ctl/cgi-bin/tomprof/enewsletter.php?msgno=1330</u>

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"Everyone leads: It takes each of us to make a difference for all of us."