

**NSF Material and Energy Balance (MEB) Virtual Community of Practice (VCP) – 2013
Individual Project Summary**

Name: ___Matthew Liberatore_____

University: ___Colorado School of Mines_____

Number of semesters you have taught the MEB course: ___4___

Class size: 200 for intro to thermo

Summary of your fall implementation activity:

Using CATME to assign teams for ~200 student course. Teams primarily assigned by students schedule and secondarily by gender. Did not use major (civil, physics, chemical students in course). Looking at evaluation of team performance on group homework and project.

Purchased and used Echo SmartPen (based on Katie Cadwell's endorsement and example). Very easy to use and upload the talking pdf files. Instead of recording lectures to "flip" the classroom, I recorded quiz and exam solutions. The solutions included rubrics and why the points were assigned for each balance/step of the problem.

What worked well? Feel free to share qualitative and quantitative assessment results, if any, to describe student performance.

Preparing to assess the usage of both techniques via end of course survey that I will write in next week or so. A best practices of assessment would be good to have discussed in detail up front.

What could have been improved?

Having a deliverable or two for the group and/or individually. I suggested to write a collaborative paper for Chemical Engineering Education (on team/CATME and evaluation thereof) and got little support from the participants or leaders.

What would you do differently next time?

Not to have so many other classes/meetings at or near the meeting time.