



In our faculty conversation, we will follow up on the momentum of the ITL Conference, the ongoing Curriculum Innovation Grants, and our Scholarship in Teaching and Learning Faculty Learning communities and bring faculty into opportunities for becoming teacher-researchers. As always, we hope to spark faculty thinking in ways that can immediately impact their teaching and provoke longer-term considerations.

Jill K. Nelson, Ph.D., Associate Professor, Electrical and Computer Engineering, VSE

Jessica L. Rosenberg, Ph.D. Director, STEM Accelerator & Associate Professor, Department of Physics and Astronomy, College of Science

Our Opening Idea or Definitions

Provide a 50-150 word opening statement with your understanding of the most interesting or important aspects of this topic (to you and your teaching).

As instructors, we spend considerable time thinking about our teaching, our students' learning, and how to improve the two. Moving beyond thinking about these issues to studying them through discipline-based education research (DBER) allows us to be more rigorous in our analysis and to share our findings with the broader community of university instructors. Key elements in classroom research include defining the research question, determining what data must be collected, how to analyze data, obtaining IRB approval for data collection and analysis, and how to disseminate through talks and/or papers.

What Have I Tried? (Jill)

Summarize 3-4 approaches, emphases, scenarios, or assignments, each briefly explained (50-100 words each) so that participants can envision your past and/or current teaching experiences, whether successful or still evolving.

- I have studied students' understanding of concepts in a grad-level class when their primary assignments were project based vs. when they were traditional homework.
- I have studied how students transferred mathematical knowledge from foundational math courses to engineering courses in which those foundations were applied.
- I have studied the different way students engage with the material, the instructor, and each other in a course with a heavy active learning element.
- I have also helped other faculty design and conduct classroom research through SIMPLE faculty teaching development groups.

What Have I Tried? (Jessica)

Summarize 3-4 approaches, emphases, scenarios, or assignments, each briefly explained (50-100 words each) so that participants can envision your past and/or current teaching experiences, whether successful or still evolving.

- Students spend a significant fraction of class time solving problems at the board in small groups. The strategy is to prepare for and then to have a full class debate. Having a debate is an opportunity for students to research one aspect of a topic in depth. They can become the expert in that part of their subject and then have the chance to defend this aspect to their peers. In the process they will also have to become familiar with the aspects of the topic that their peers are studying so that they have a broader view of the subject as a whole.
- Mini collaborative projects with presentations: These are exercises done in groups of 2-4 that have to be presented to the class at the end of the given time. The goal is to get the students thinking about the class ideas and exploring on their own. The need to put together a couple of slides to present to the class helps them to organize their thoughts and to keep them on task.

What Are We Exploring?

Provide a list of 3-4 questions, activities, or options that you have been considering as you continue to adapt your teaching approaches.

Jessica Rosenberg and Jill Nelson are exploring together:

How do learning assistants affect student learning? How does serving as a learning assistant affect the LA's own understanding and his/her career and educational aspirations? How does an ongoing training program affect how LAs operate in their teaching roles? In the absence of formal training, what do LAs draw upon to inform their teaching?

What are some Best Practices, Tips, or Resources I'd Like to Share with Other Faculty?

If you could recommend a list of 3 core values, teaching tips, and/or resources (articles, books, and links) that faculty across disciplines could find helpful to implement Mason Impact, what would your list include?

- Engage the students! Give them opportunities to actively work with the content, the instructor, and each other.
- Assess how well your classroom practices are working!
- Teaching is collaborative! Talk to and work with colleagues as you develop and redevelop your teaching efforts.



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