This workshop focused on integrating structural geology, geophysics, and tectonics in undergraduate geoscience courses. It was the single best professional experience I have had so far, providing concrete ideas about how to improve my teaching and allowing me to expand my network of likeminded colleagues. In contrast to professional meetings, which sometimes have an air of competition among presenters showcasing their latest research, this workshop was a collegial, open forum where all participants freely shared ideas and strategies for teaching.

The workshop schedule was divided into brainstorming sessions on “grand challenges” in structural geology, geophysics, and tectonics; short presentations in which participants demonstrated their own strategies for teaching particular concepts; longer workshops in which the presenter gave a background talk followed by group discussion; and individual work time during which all participants developed two or more ideas for class activities based on the week’s discussions. I presented a short talk about my approach to teaching students stereographic projections, a commonly confusing aspect of structural geology, and received valuable feedback about how to make the method more effective. I also presented a longer workshop about integrating short-term observations of geologic processes into a classical structural geology course, which typically focuses on the evolution of faults and folds over much longer time-scales. I was quite honored and pleased to see that at least 1/4 of the activity ideas prepared by participants on the workshop’s final day incorporated some of the concepts I presented in that talk.

In addition to the concrete ideas for course activities that I developed by observing and talking with my colleagues, I came away with a changed mindset about evaluating my own course activities — from lectures to assignments to exams — in terms of their pedagogic effectiveness. In the back of my mind, I had had some ideas about assuring that an assignment’s goals were aligned with the actual activity and the assessment, but during the workshop, we spent time critiquing course activities using a rubric, which provided me with a set of direct questions I will now ask myself whenever I design or revise an activity.

The workshop materials, including summaries of group discussions, course activities, and workshop presentations, are available at:
http://serc.carleton.edu/NAGTWorkshops/structure/SGT2012/index.html