Todd Timberlake (Berry College)

Inquiry-Based Physics for Non-science Students

- Text: *Physics: Concepts and Connections* by Art Hobson
- 22 worksheet-based activities utilizing hands-on experiments and computer simulations
- 9 laboratory activities (similar to worksheets, but more involved)
- activities and labs completed by groups of 4 students
- Used EBAPS to measure student understanding of how science works:
  - Before: 2.764 ± 0.439
  - After: 2.744 ± 0.447
- Student Comments:
  - The Good: "The activities were great. They had information on them and they allowed us to have a hands-on learning environment. I got to work with group members - so we got to feed off of each other."
  - The Bad: "I am strongly opposed to students learning on their own. ... If this class serves as a model fo rthe way all science classes are conducted, then I pray to God that no one take their sciences here at Berry."
  - The Typical: "I think there should be a mix of lectures and activities with the ideas being directly stated. ... I felt I would have understood the material better if I would have been lectured on it."
- Plans for Next Year:
  - Eliminate some simulations and focus on hands-on activities.
  - Address the "process of science" more directly in the activities.
  - Do a better job of selling the method.