**ABSTRACT**

The Scientific Process is a required course for science majors in the College of Arts and Sciences. It was developed and is typically delivered collaboratively, through team-teaching. Students engage the history, philosophy, ethics, and methods of scientific disciplines in an interdisciplinary context. A principle assignment for the course is the development of an individual research proposal through which the students demonstrate their understanding of scientific processes. In the Fall of 2009 we initiated a course modification to include a funding panel simulation where students participate in an anonymous inter-panels peer review of proposals from students in other sections of the course. We report on the results of the multiple efforts to run this simulation where we have modified the size of funding panels, the degree of overlap of interest/expertise of the student reviewers, and the preparation and delivery of the simulation. Post-simulation assessments indicate the students' enjoyment of the simulation and perceived increased insight into writing an effective proposal. An unanticipated benefit of the simulation is real-world ethical issues that provide a powerful bridge to the unit on science ethics.

**RESULTS**

Figure 1: Students described the funding panel in positive terms.

- **Q1**: Students considered the experience valuable
  - (t = 17.7, df = 39, p < 0.001).
- **Q2**: Students felt that they learned more about writing an effective proposal by participating in the funding panel
  - (t = 8.48, df = 39, p < 0.001).
- **Q3**: Students also felt that they learned more about the process of science by participating in the funding panel
  - (t = 7.41, df = 39, p < 0.001).

**EMERGING CONCLUSIONS**

- Students find the Funding Panel Simulation both helpful and enjoyable.
- Collectively discussing and critiquing proposals appeared to help students recognize strengths and weaknesses of proposals, illuminate the diversity of perspectives on critical evaluation of a proposal, and increase students efficacy in their own writing.
- Students were unexpectedly committed to thorough, critical review; and
- Students express a deeper understanding and appreciation of scientific process and a realization of the value of peer review.

**RELATED LITERATURE**