Co-Curricular Experiences: Bridging the disconnect between the classroom, ethics instruction, and the real world

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Purpose and Research Question

Context: Involvement in co-curricular experiences has received considerable attention:

- Involvement is related to college retention and graduation
- Unclear how involvement is different for differing student populations (e.g. students from different academic fields)

Research Questions: *(1) How does participation in co-curricular experiences influence ethics instruction? (2) What influences do participation in co-curricular experiences have on engineering undergraduate ethical development?*

Methodology

- Focus groups and Interviews were transcribed verbatim
- **Grounded Theory** was the qualitative technique used to understand the phenomenon from the data
- **Open Coding** identified possible explanations at each school
- **Axial Coding** grouped related codes across the four schools
- **Emergent categories** and **themes** were created

Participant Demographics

- 18 institutions
- Number of participants
  - 123 students, 110 faculty
- **Gender**
  - Males – 84 students; 92 faculty
  - Females – 39 students; 18 faculty
- **Race** - majority of focus group participants were White; American Indian, Asian, Black, and Hispanic students and faculty participants were less represented in focus groups
- **Tenure** – 62 faculty members were tenured

Conceptual Framework
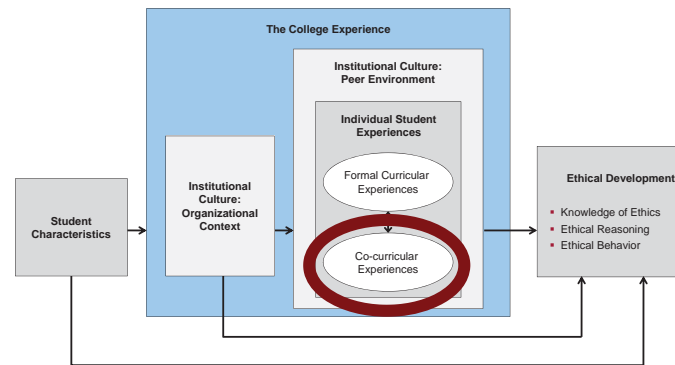
Implications for:

Practice

- Encourage reflective practice in ethics instruction
- Use classroom instruction to connect co-curricular experiences to ethics

Research

- Examine co-curricular experiences of engineering or pre-engineering students at other types of institutions
- Explore differences of co-curricular involvement by race and gender
- Investigate outcomes by type of co-curricular experience

Findings

Three salient themes emerged from the data:

Theme 1: Participation in co-curricular experiences allows students to practice what they have learned about ethics in the classroom

Theme 2: Participation in co-curricular experiences helps students connect learning about ethics to the real world

Theme 3: Participation in co-curricular experiences influences personal and professional growth

Participant Quotes

I'm always astounded how many of them work and they often bring their work-related problems…you know, what they worked on, into the class… (Faculty, Very high research university)

I've found that internships are probably the most helpful in teaching ethics because you…well, once again, they come out with the idea that they're going to be the most ethical person in the world but they get to see real world ethics as it's being done by the professionals. (Student, High research university)

I would say that looking at them [the internship company] and having that experience, whether or not it was they practice good engineering ethics or bad engineering ethics, I think reflecting on that helped me decide for myself what is good or bad engineering ethics and what's important…I need to make a point of avoiding that in the future focusing on that sort of stuff, too. (Student, Baccalaureate/speciality institution)

I have a sense that the students who have those experiences definitely have a level of maturity and responsibility that, I think, comes from working in that environment versus the students who don't. (Faculty, Very high research university)