Understanding Students’ Identities as Researchers

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Understanding the value of undergraduate research

Yeah, I feel like I am willing to be more creative, like when it comes to our [research] or something like that, but in class, I just know there's a right answer. And you could get an A if you know how to do it. So it's a little more frustrating in the school setting if you are given a problem that doesn't have a specific answer.
Further understanding students’ researcher identities and beliefs about knowledge

- Identify aspects of UREs that support students’ integration into the STEM culture (epistemic cognition and identity) – *Recommendation 2*

National Science Foundation (NSF): Research in Engineering Education (REE) - Collaborative Research: Student Perspectives on Researcher Identity and Transformation of Epistemologies
Multi-phase, mixed method design allows for increased understanding of student experiences

**Phase I**
- Closed-ended survey questions
  - Focused on epistemic beliefs
- Open-ended survey questions
  - Focused on researcher identity
- Demographics

**Phase II**
- Semi-structured interviews
  - Focused on both identity and epistemic cognition
  - Aim to understand students’ experiences with research

**Phase III**
- Research to practice
  - Identity practices that can be translated to courses
- Local and national workshops
Focus on the student perspective

• How students define research
• How students see themselves as researchers

"I think there's different kinds of research. There's professional research which is definitely in the lab version, and then there's research that everyone does daily, which is just looking up a word you forgot in the dictionary. Or that kind of ... like a Google. Because it still is a search and you still are gaining, expanding and retrieving knowledge, but it's not the repeatable focused research with a capital “R” kind of idea."

“…I understand there's a lot more complexity, the different problems now than I did a year ago…That's probably why I rated myself a little higher. I was like, ‘Oh, okay, it’s not that bad.’”
Recommendations for research studies

• Be intentional about the data you are collecting and how you plan to analyze it – Connect back to your research goals

• Be cognizant of the bias and beliefs that you are bring to the study – Identify these and counter when needed

• Be honest about limitations of the work – What are you not able to speak towards