New CUES program is a unique opportunity for authentic faculty collaboration

Center for University Education Scholarship  
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Developing 21st century skills, enhancing students’ quantitative intuition and building students’ capacity for public scholarship are examples of overarching themes in education, “grand challenges” if you will. Such themes cut across disciplinary boundaries and attention to them can critically enhance the value of today’s university education. But how exactly might such themes contribute to particular institutional goals or support faculty pursuits at the University of Arizona? How might they enable novel insights of value in the quickly evolving landscape of higher education?

The Center for University Education Scholarship [1] is piloting a new, privately supported approach for engaging diverse faculty teams in thematic challenges, such as the ones above, that impact university education. Our new approach aims to do two things: sponsor faculty-proposed interdisciplinary workshops on educational grand challenges and create new theme-based requests for proposals funded by CUES.

This new set of programs combines the best elements of top-down and grassroots approaches to change: Members of the faculty ? not the institution ? ideate themes and propose the methods for educational innovation. The institution, through privately funded CUES grants, ensures that promising faculty members with ideas to enhance the scholarship of teaching and learning make an impact on education at the University of Arizona.

Creating paths for faculty engagement in University education

Arguably, interest in university teaching and learning as a topic in itself varies markedly across faculty members. Yet all faculty members can likely point to content, know-how, dispositions and capabilities we would recognize as valuable in our students. Thus, CUES has begun to create spaces where faculty members come together as a result of common interest in a particular theme (e.g., quantitative intuition, adaptive ethical skills, civic engagement capacity) to generate and map new knowledge tied to both the theme and university education. The first of these spaces, the 2019 Mapping Educational Challenges Workshop [2], known as MECha, covered quantitative intuition across disciplines ? the ability to understand and interpret data in various forms and contexts in order to ask informed questions about the data, validate it and tell effective stories about it. The workshop led to the creation of a new type of CUES grant, the thematic CUES Spanning Boundaries Challenge [3]. Following the theme of the 2019 MECha Workshop, the 2020 challenge is also on quantitative intuition. The aim is to have a different theme for each Spanning Boundaries Challenge ? namely, the theme of the preceding MECha workshop for that year.

Reaching across disciplinary silos

In academic environments, we often talk about a variety of "siloing" effects. These effects, in
part byproducts of specialization, keep us from collaborating across units, sometimes marring our capacity to recognize educational innovation. What is new within a silo may be well established in another, complicating the possibility of institutional transformation. Educational grand challenges motivate collaboration across traditional silos, opening possibilities to generating new knowledge and forging partnerships with institutional ? not just field-specific ? value. CUES aims to support promising grand challenges through all its grants, but the new Spanning Boundaries Challenge intentionally centers the interdisciplinary component of the CUES mission.

Building gravitas around grand challenges

In April, faculty from nine University of Arizona colleges came together to discuss ways to help students develop quantitative intuition. They did so over a two-day knowledge-generating workshop organized by an interdisciplinary faculty team including:

- **Deb Hughes Hallett** [4], Professor of Mathematics
- **Hoshin Gupta** [5], Regents Professor of Hydrology and Atmospheric Sciences
- **Chris Griffin** [6], Visiting Professor and Research Scholar, James E. Rogers College of Law
- **Chris Robertson** [7], associate dean for research and innovation in the College of Law and CUES advisory board member, reflected on his MECha Workshop experience: “I appreciated seeing how we could help University of Arizona students get beyond merely cranking through an algorithm to instead start grasping at the meaning of numbers and the stories they tell.”

In addition to enabling cross-unit collaborations, MECha workshops are currently the mechanisms for selecting future Spanning Boundaries Challenge themes. Indeed, the quantitative intuition across disciplines workshop theme gave rise to the present request for proposal, which is funded by CUES and currently open for pre-proposal submissions [8], due Feb. 18. The idea is that future MECha workshops will determine RFP themes under the Spanning Boundaries umbrella. Faculty members are invited to send ideas for future MECha themes to guada@email.arizona.edu [9].

The Spanning Boundaries Challenge is a one-of-a-kind mechanism to broker and fund authentic, project-based collaborations that build on University of Arizona faculty ideas. It is my hope that our faculty members will not only take part in the current Spanning Boundaries request for proposals, but will also leverage the combined value of MECha and Spanning Boundaries to define, rally around and ultimately undertake educational grand challenges aligned with the University’s values and identities.

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