Finding a CURE: Course-based Undergraduate Research Experiences

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Course-based Undergraduate Research Experiences (CUREs) require students to conduct studies with unknown outcomes. This journey into the unknown often intimidates students and faculty. In our session I will summarize my CURE experiences and facilitate discussion on eight CURE topics. (1) Starting a CURE – Using backward design, developing timelines, establishing research groups, helping students frame research questions and conduct literature searches, setting expectations for communication and collaboration, and preparing students for uncertainty. (2) The metacognitive value of preliminary APA-style student oral presentations with mock data. (3) IRB considerations – Certifying students' human research training, navigating student-generated IRB proposals, and designing recruitment plans. (4) Methods – Creating or acquiring materials and stimuli, pilot testing, developing research scripts, and sharing materials and data via the Open Science Framework. (5) Cultivating Data Savvy – The benefits of student-generated dummy-data sets, graphing practice, and low-stakes data analysis quizzes before actual data collection. (6) Writing – Scaffolding the writing process across APA-style manuscript components, and using rubrics for peer feedback in writing workshops. (7) Crisis Management - Social loafing, procrastination, diffusion of responsibility, "too many chiefs", interpersonal conflicts, schedule conflicts, low participant turn-out, and genuine emergencies. (8) The Big Finish – Workshopping the final manuscript or grant proposal, conducting talks and poster sessions, producing pod-casts, videos, or TED-Ed lessons, taking students to regional conferences, or submitting manuscripts for publication. We will affirm that CUREs vary widely depending on institutional or departmental goals and resources. People from all institution types and careers stages are encouraged to help us find a CURE.