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Two Heads Are Better Than One: Collaborating for Undergraduate Research

Much has been written on the potential for undergraduate research to shine as a cornerstone of higher education. According to Kuh (2008), the goal of undergraduate research is to "involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions." Indeed, teaching through research is congruent with the practices of a strong collegiate education (Froyd, 2008).

Faculty members at community colleges may be best positioned to instill strong research practices into students due to the reach and breadth of their student populations. There are more than 1,200 community colleges across the nation, institutions where forty-one percent of all undergraduates come to study (American Association of Community Colleges, 2019), and community college faculty regularly teach the heaviest course loads, and often with some of the largest class sizes, relative to faculty at other colleges and universities. However, research productivity for instructors at community and technical colleges is not often recognized as a significant factor in hiring and tenure decisions. A residual result of this reality is that professors at community colleges can receive little support for their efforts to bring research into the classroom.

Collaboration

Partially in response to the issues surrounding support for scholarship practices of community college instructors, we have engaged in a collaboration to bring research to community college classrooms for the past five years. The goal of our collaboration between a university and community college instructor has been to pursue our respective research interests while directly exposing firstyear community college students to scientific research.

Our first collaborative study has sought to identify whether training in attention, relaxation, and contemplation can facilitate students' perceived cognitive flexibility. This initial project has allowed us to readily incorporate the study into the actual curriculum of an introductory psychology course at the community college. Though students are in no way required to participate in our study and can confidentially opt out of these experiences for any reason, because the activities for our studies are woven into the fabric of the course, all students get to experience the pedagogical impact of the research and study.

Involvement by Design

At the start of each semester, the community college professor introduces the topic of our current study to his introductory psychology class and explains to students that they have the option to participate in the study as subjects. He also shares how the study is woven into the course's curriculum to provide a model of research methods as the class studies relevant concepts. The university professor visits the community college class a week or two later to introduce himself, collect informed consent, and model collaboration in research to the students.

While the focus of our research has evolved, the relevance of introducing research to first-year community college students in a constructivist manner has remained constant.¹ Research provides a platform for teaching critical thinking skills while knowledge is built through shared activities, engagement, dialogue, and collaboration (Schrader, 2015). We accomplish these ends through the integration of collaborative research into several areas of course curriculum during our studies: (a) research methods and design, (b) research ethics, (c) the development of critical thinking skills, and (d) a focus on the effects relaxation has on the autonomic nervous system. Because the research process itself provides examples of the material being covered, the topic integrates seamlessly across these curricular areas of focus throughout the semester.

We collect subject data after each semester ends and, once statistical analysis is completed, we share findings from the semester's study in a simplified, slide-based format with the entire class. This way, students see fullcircle how the study was designed, what it was like to participate in the study, and what can be learned from it.

Lessons Learned

The past five years have taught us several lessons regarding the practical aspects of involving students in research at a community college. Perhaps the clearest lesson we have learned is just how easy and downright fun it can be to form a sustainable collaboration between colleagues at different institutions. Most importantly, we have observed a genuine interest in research among community college students. The hundreds of students with whom we have interacted over the past years because of our collaboration have repeatedly demonstrated an eagerness to participate,

¹ Nearly all students in the introduction to psychology course in which this study is rolled out are first-year students.

discuss, and engage in our studies and their coursework. Students often appear motivated by the simple enjoyment that comes from research and shared interests. This is notable because many community college students lack a clear vision of their academic futures. Observing academic professionals who enjoy discussing research and working towards a common goal together seems to make the research process more tangible for students, and thus more personally and academically accessible and relevant.

Recommendations

Looking forward, we offer three recommendations to our peers considering teaching undergraduate research at a community college:

First, we think the time is always right for collaboration. The teaching expectations at a community college often thwart intentions to engage in scholarship. Partnering with someone from a university can provide a balance of resources both tangible and experiential to help move community college instructors forward in pursuing scholarship. Reach out to potential collaborators at neighboring institutions. Find people who doing interesting work and reach out to inquire whether they are willing to help you bring similar research to your campus' students.

Second, look for entry points in your syllabus that allow for a relatively seamless integration of a research project into a course. In addition, consider how you can integrate a full research study into your course curriculum. What would it take to bring students into the design, implementation, and analysis of a disciplinary study?

Third, we end with a proposal for our colleagues: imagine how our local efforts might change the world. Might it be possible to leverage cross-institution collaborations to move the culture of a community college toward one of greater inquiry? What if every community college student was exposed to undergraduate research during their first semester of study? What if there were a requirement that every department offer at least one laboratory- or studio-based course?

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