

Introduction

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Greetings and welcome to the Summer 2024 issue of *Scholarship & Practice of Undergraduate Research (SPUR)*. While this issue does not have a specific theme, it features several contributions delving into various aspects of mentoring and presenting fresh approaches and tools aimed at enhancing the overall undergraduate research experience. A number of pieces also explore initiatives and activities that aim to provide equitable access and opportunities for minoritized students. As you peruse these articles, you're likely to uncover new insights into how you can foster more meaningful research experiences.

In my editorial, I discuss the review process at *SPUR* and offer advice on navigating the peer review process and putting your best foot forward as an author.

Geneive Henry, from Susquehanna University, is the recipient of the 2024 CUR Fellows Award for Excellence in Undergraduate Research Leadership. In her commentary, she discusses the benefits and challenges of engaging undergraduate research students in her collaborative research ventures in chemistry. She provides examples of two mentoring models, co-mentorship and multi-mentor protégé, which she credits for her success as an undergraduate research mentor.

In the first of four contributions focused on mentoring undergraduate researchers, Kaytlin Gomez and Chad Curtis from Nevada State University present early findings from their pilot study investigating the benefits of small-group metacognitive discussions. Their research suggests that these discussions offer various advantages. They help reduce student anxiety, promote peer-to-peer learning, facilitate team building, and provide valuable early feedback to faculty, allowing them to intervene and make course corrections if necessary.

Heather Haeger (University of Arizona), Natasha Oehlman (California State University), and Roman Christiaens (University of Arizona) share their success in utilizing images posted to public blogs and essays as a means for minoritized students to assert ownership, demonstrate belonging, and establish a research identity in traditional academic research spaces at a small public minority-serving institution.

Jonathan S. Gore and Miya Carmichael from Eastern Kentucky University studied the connection between students'

motivations and their outcomes in undergraduate research. They specifically looked at how personally-autonomous ("for me"), relationally-autonomous ("for us"), and controlled ("I have to") motivations for engaging in undergraduate research relate to desired research outcomes. They found that personally-autonomous and relationally-autonomous motives have a positive impact, but they are associated with different outcomes. Personally-autonomous motives seem to be linked to specific project outcomes, while relationally-autonomous motives are associated with mentoring. This understanding might help mentors align students' personal and relational motivations with research outcomes that are beneficial for both parties, thus enhancing everyone's satisfaction and productivity.

Finally, Rosaleen Duggan Bloom (Texas A&M University), Erin T. Kaseda, Erin M. Gandelman, and Steven A. Miller (Rosalind Franklin University of Medicine and Science), J. Benjamin Bitterman (Lake Forest College), and Kate Namuhmuh (Texas State University) introduce a model for online onboarding and support for student researchers engaged in research on emotionally sensitive topics. The students in this study worked remotely on a study conducted across several sites during the pandemic. They received holistic one-on-one mentoring weekly or bi-weekly to develop their research skills and support mental health. As such, this approach may have value for other faculty in other disciplines and institutions investigating emotionally charged research topics.

Evelyn Abagayle Boyd (University of Mississippi) and Kelly Best Lazar (Clemson University) report the development of an instrument called the Undergraduate Research Science Capital Scale that science departments and their institutions can use to evaluate their existing structures and identify opportunities and barriers to increasing their students' equitable access to undergraduate research opportunities and promoting the growth of their undergraduate science research.

M. Lynn Breyfogle, Karen Castle, Xiaoyan Liu (Bucknell University), and George C. Shields (Furman University) report on the success of the Bucknell STEM Scholars program, an early research immersion undergraduate research program based on a learning community model designed to attract and support minoritized students (first-generation, students of color, and female-identifying) interested in pursuing STEM majors. The program has successfully supported nine cohorts of scholars to date, as evidenced by solid retention, persistence, and graduation rates, and has

successfully transitioned from external support initially provided by the National Science Foundation to becoming an endowed institutional program.

Leann Norman, Laura Gough, Matthew Hemm, Jacqueline Doyle, Kelly Elkins, Brian Jara, and Rommel Miranda (Towson University) report on the success of a STEM faculty professional development program funded by the Howard Hughes Medical Institute's Inclusive Excellence initiative. Their article describes the professional development program focused on developing course-based undergraduate research experiences incorporating inclusive teaching practices, identifying commonly perceived barriers to developing course-based undergraduate research

experiences (CUREs), and offering potential solutions to these concerns based on the experiences of 35 faculty who have developed 25 CUREs over the past five years.

Our hope is that the content in this issue serves as a source of inspiration and empowerment for you as you prepare to embark on another academic year partnering with undergraduate researchers. We also encourage you to consider sharing your unique approaches and perspectives on mentored undergraduate research, scholarship, and creative activities with the wider community through publication in *SPUR*. Ultimately, we trust that prospective authors will find these articles to be valuable models for crafting impactful contributions.