

2012

Letter from the STEM Editor

Robb Sinn PhD

North Georgia College and State University

Follow this and additional works at: <http://digitalcommons.northgeorgia.edu/papersandpubs>

Recommended Citation

Sinn, Robb PhD (2012) "Letter from the STEM Editor," *Papers & Publications: Interdisciplinary Journal of Undergraduate Research*: Vol. 1, Article 4.

Available at: <http://digitalcommons.northgeorgia.edu/papersandpubs/vol1/iss1/4>

This Article is brought to you for free and open access by the Center for Undergraduate Research and Creative Activities (CURCA) at Nighthawks Open Institutional Repository. It has been accepted for inclusion in Papers & Publications: Interdisciplinary Journal of Undergraduate Research by an authorized editor of Nighthawks Open Institutional Repository.

Undergraduate research helps students synthesize and internalize the curriculum and many concepts well outside traditional undergraduate studies. Institutions of higher learning and their respective community often experiences sweeping benefits from such research. Let me offer three examples of the impact of undergraduate research.

An undergraduate researcher studying in Belize, published in this journal, contributed a solid piece of research, from methodology to final draft. All the marine biologists in the world, with a dozen lifetimes each, could not study samples from each saltwater ecosystem near even one small continent like Australia. As undergraduates escape the classroom and launch studies like this one, the learning gains are immense, and the research community's efforts are greatly enhanced.

The Dahlenega community that is home to North Georgia experienced the nation's first gold rush more than 150 years ago. Mercury byproducts washed into several streams. Undergraduate researchers from biology, chemistry, and physics have studied and tested soil, rocks, and animal life, both in the streams and nearby. While this journal intends to serve a wide audience, these students' important work has increased our community's understanding of mercury contamination from gold mining and inspired myself and others to offer increasing support to undergraduate researchers.

At conferences in my own discipline of mathematics, I have heard and seen extremely interesting talks and posters from undergraduate mathematics researchers on cutting-edge topics, including graph theory and game theory. Game theory has recently been applied to terrorism and counterterrorism models, and biological researchers have leveraged game theoretic evolutionarily stable strategies to model the dynamics of species development. Graph theory is becoming an important tool for logistics and operations research, and undergraduates across the country have found hundreds of interesting and useful graph theory theorems to explore and prove.

I have found it very rewarding to witness the high quality of original research that has been conducted by undergraduates, and, as the Science, Technology, Engineering, and Mathematics editor for this journal, I am excited to see additional results from enterprising undergraduates from around the country. The three vignettes above demonstrate the valuable knowledge that can be produced by student-mentor research groups.

With this journal, I hope to help celebrate the accomplishments of undergraduates and offer a permanent record of their high quality achievements. The learning outcomes are quite robust, and the benefits to institutions and communities are both real and relevant. I am honored to be a small part of these successes and to have a hand in helping to publish important results. I look forward to working with the undergraduate research community for years to come.

Sincerely,

Robb Sinn

Co-managing Editor
Papers and Pub(lication)s