

# Editorial

Dear Readers,

Welcome to our September edition Volume 20, Issue 1. We would like to thank our readers, authors, and reviewers for making this issue possible. This edition will include an array of topics ranging from middle school robotics programs, to the gender gap in STEM disciplines.

To begin this issue, authors Scott-Parker and Barone-Nugent conducted a study regarding the retention of college girls in STEM through the pilot of the Growing Tall Poppies STEM program. Read more about the program and outcome in the article, "How to Change Student Perception of STEM at School – Make it Real Banana Peel!"

The next article focuses on the influence of a middle school robotics program on the students' perception about STEM and STEM careers. Authors Jafeth E. Sanchez and Janet Usinger write about student and leader experiences in the program in their article, "An Evaluation of a Pilot Robotics Program."

Switching the focus to college, authors Jessica L. Chapman, Adam D. Hill, Judith Nagel-Myers, and Ivan P. Ramler observed the first year of the Liberal Arts Science Scholars program and discussed early signs of how the scholarships will improve retention in STEM in low-income students. Their findings can be found in their article, "The Liberal Arts Science Scholars Program: A Multidisciplinary Model for Supporting Science and Mathematics Students through the First Year."

Authors Erin M. Hill, Laurie Anderson, Brandon Finley, Cinnamon Hillyard, and Mark Kochanski identify the real learning strategies and obstacles students face in undergraduate STEM courses. Read about their findings in the article "A Student-Centered Approach to Identifying Strategies and Obstacles to Learning for Undergraduate STEM Courses."

The next article is about outreach programs and summer engagement opportunities designed to expose high school women to engineering. Malle Schilling and Margaret Pinnell's findings on the impact of these programs is found in their article, "The STEM Gender Gap: An Evaluation of the Efficacy of Women in Engineering Camps."

In the following article, authors Santhosh Mathew and Upasana Kashyap report the impact of Open Educational Resources on the academic performance of undergraduate students. The case study and results can be found in their article, "Impact of OER Materials on Student's Academic Performance in an Undergraduate Astronomy Course."

In the final article titled "An Integrated STEM Introduction to Increase Interdisciplinary Thinking and Research Preparation," authors Barbara Kramer and Timothy Walston assess two first-year courses and the impact these classes had on students.

We would like to thank Brandi Jones, our former editorial assistant, for all her help editing the journal over the last year. We wish her all the best in her future endeavors. We welcome Amy Clark, our new editorial assistant, who has taken over the reins from Brandi. We also thank our assistant editor, Eliza Banu, webmaster Paramjit Kahai, and our format editor Wally Ridgway, for their outstanding help throughout the year.

In conclusion, please share any comments via email at [jstemed@gmail.com](mailto:jstemed@gmail.com). If you are interested in publishing your research in our journal, please submit your manuscript at [jstem.org](http://jstem.org). Thank you for your interest and we hope you enjoy the 20.1 edition!

P.K. Raju  
Editor-in-Chief  
Telephone: (334)-332-5197