

Editorial

Dear Readers,

We want to welcome you all to our newest edition Volume 18, Issue 2. This spring semester we would like to educate our readers on our continuous efforts to inform more people about the increasing amount of diversity across the nation as well as the importance of increasing the amount of students involved in STEM education programs. We begin by working with students in elementary school and continuing through college. In each of these articles, the authors try to focus on different ways to increase student participation within the STEM field.

To begin this edition, authors Lisa Bosman, Kelli Chelberg, and Ryan Winn all talk about the efforts that tribal colleges and universities make for Native American students to have a better chance to succeed in the STEM field, unlike many other universities. They address this issue in their article, “How does service learning increase and sustain interest in engineering education for underrepresented pre-engineering college students?”

Next, in the article, “Involvement in Out-of-Class Activities: A Mixed Research Synthesis Examining Outcomes with a Focus on Engineering Students”, authors Denise Simmons, Rongrong Yu, and Elizabeth Creamer discuss the importance of getting to know STEM students on a personal level, rather than just based on academic performance.

Following this article, authors Petros Katsioloudis and Mildred Jones analyze a recent study in their article, “Impacts of Effective Temperature on Sectional View Drawing Ability and Implications for Engineering and Technology Education Students”. This analysis was done to determine whether or not a significant change in temperature has an effect on students’ spatial visualization ability or their ability to sketch a sectional view.

Next, in the article, “Corequisite model: An effective strategy for remediation in freshmen level mathematics courses”, authors Upasana Kashyap and Santhosh Mathew discuss the importance of a comparative study of student performance in a freshmen level quantitative reasoning course (QR) under three different instructional models.

Next, in the article, “Case Studies in Sustainability Used in an Introductory Laboratory Course to Enhance Laboratory Instruction”, authors Stephanie Luster-Teasley, Sirena Hargrove-Leak, Willietta Gibson, and Roland Leak discuss a research opportunity that seeks to develop novel laboratory modules by using Case Studies in the Science Teaching method to introduce sustainability and environmental engineering laboratory concepts to 21st century learners.

Lastly, in her article, “Recognizing Challenges and Predicting Success in First-Generation University Students”, author Mara Aruguete analyzes a study which explores the challenges of first-generation students while also examining the factors that predict the success of this population.

These six articles are meant for readers to get a better understanding of how important it is to start involving students in STEM related activities at a younger age by performing duties in order to improve academic performance within the programs.

In closing, we hope that you all will share any insight you have obtained from these articles and make an effort to contribute to the success of these students aspiring careers in the STEM field. With that being said, if you have any questions or concerns, please feel free to email us at www.jstemed@gmail.com. We hope everyone has a great summer!

P.K. Raju
Editor-in-Chief
jstemed@gmail.com