

Editorial

Dear Readers,

We are pleased to welcome all of you to Volume 17, Issue 2 of the *Journal of Stem Education: Innovations and Research*. As the spring semester comes to a close, we have many new articles to share with you in regards to furthering the education of students within the disciplines of STEM. This edition not only focuses on the value of what is being taught in our education system, but also specifically highlights the programs that are currently being implemented to inspire more efficient learning environments for students across the country.

Catherine Bénétau, and several others came together to discuss the primary issue regarding the importance of the program called *Peer Led-Guided Inquiry*. Through the article "*The Peer-Led Guided Inquiry in Calculus at the University of South Florida*" they demonstrated how this program is designed to help effectively teach concepts of calculus and improve learning efficiency in students at the University of South Florida.

Another cutting edge component of interactive learning is alternate reality games that employ the real world as a platform to convey a specific lesson. This is uniquely discussed in the article "*The Source: An Alternate Game to Spark STEM Interest and Learning among Underrepresented Youth*", written by authors, Melissa Gilliam, Alida Bouris, Brandon Hill and Patrick Joda. The motivation behind developing Alternate Reality Games is to instill a sense of interest in students for the field of STEM.

Ongoing and up-and-coming organizations such as the Fab Lab Tulsa play a vital role in providing a positive impact on the productivity as well as the competency of middle schools students in the STEM field. Chad Hellman, Nicholas Dubriwny, Nathan Pritchett, and Michelle Hardesty wrote the article "*Impact of Fab Lab Tulsa on Student self-efficacy Toward STEM Education*" in order to effectively demonstrate this effect on students.

A more specific focus on understanding the transition of students between general and organic chemistry is underscored in "*Understanding the impact of a general chemistry course, on students' transition to organic chemistry*". Alexandra Collins-Webb, Kathleen A. Jeffery, and Ryan D. Sweeder, discuss how the course can potentially be redesigned to facilitate the shift between general to organic chemistry for students.

On a larger scale in order to improve efficiency of the scientific workforce, Colby Tofel-Grehl and Carolyn M. Callahan discussed the importance of having secondary schools that are highly concentrated on STEM Education through the article "*STEM School Discourse Patterns*".

The Catalyst Scholarship Program at CUNY has helped collect money for merit scholarships for 40 kids who have performed very well academically in high school and wish to pursue a major under the STEM field. In "*The Catalyst Scholarship Program at Hunter College*", authors, Haydee Salmun and Frank Buonaiuto discuss the importance of the Catalyst Scholarship Program at CUNY and how it helps the talented however financially underprivileged students enter into programs of their choice.

As we conclude this edition we should finally recognize the efforts made by Kumar Yelamarthi, and his thorough analysis of the benefits of having a unique program for undergraduate students that incorporates projects to help them succeed within the disciplines of Engineering and Technology through his article "*Tour Guide Robots: An Integrated Research and Design Platform to Prepare Engineering and Technology Students*".

On behalf of editorial board I would like to kindly request all of our readers to take the time to reflect on the benefits of STEM education while keenly understanding the motivations behind the several articles written in this edition. With that being said, please feel free to send us any questions or concerns, by email to jstemed@gmail.com. Good luck to everyone finishing up the semester and I hope you all have a great summer!

Regards,
P.K. Raju
Editor-in-Chief