

Editorial

Welcome to the Journal of STEM Education: Innovations and Research, Volume 11, Issues 1 & 2. This is the first in a series of Special Issues featuring results from research conducted for the Laboratory for Innovative Technology and Engineering Education (LITEE) Case Study National Dissemination Project. For this project, professors at twenty-six universities across the nation conducted research using case studies developed by LITEE. Our upcoming Special Issues will feature articles presenting the findings from these professors' work. This first issue presents four such articles.

In "Utilizing Multimedia Case Studies to Teach the Professional Side of Project Management," Cassandra Elrod, Susan Murray, Barry Flachsbart, Karl E. Burgher, and Drew M. Foth present a study they conducted using the Superstar Case Study in an engineering Project Management course. They find that the students perceived that the case study added value to the course, and make suggestions for tracking individual students' progress using the case studies.

Next, Eli Fini, in "Incorporating a Real World Case Study into a Senior Construction Engineering Course," discusses using the Mauritius Auditorium Design Case Study to improve students' self-efficacy and motivation. She found that students became personally committed to course and program goals when working with the case study, and that as a result, student learning was maximized.

Then, in "A Multi-Experimental Study on the Use of Multimedia Instructional Materials to Teach Technical Subjects," Victor Mbarika, Emily Bagarukayo, Vineeta Hingorani, Sandra Stokes, Mathieu Kourouma, Chetan S. Sankar, and Belinda P. Shipps discuss several experiments carried out over a period of three years in order to measure the effectiveness of case studies to improve Higher Order Cognitive Skills (HOCS). All groups in the study reported perceived improvements in HOCS, self-reported learning, learning interest, challenges to their thought process, and learning from others.

Finally, in "Using Multimedia Content to Present Business Ethics: An Empirical Study," Peter Stanwick examines the effectiveness of using the STS-51 L (Challenger) Case Study in enhancing the learning experience for undergraduate students. His study found that students were positively impacted through the multimedia case study in their attitudes toward management and business ethics constructs.

I hope that you enjoy reading these articles and learning about the exciting work that is going on at these institutions. I am excited to present the findings of these studies to you, and am confident that the work these professors are doing is important to the advancement of STEM education. Have a great semester!

P.K. Raju
Editor-in-Chief