

A New Beginning

As we begin a new school year I usually stop to reflect on the past, what worked and what didn't. This fall is no different, I look forward to new students, new material that I want to introduce them to and the feeling of starting over anew. As I was preparing this volume of JSTE (48-2) and reading over the five manuscripts I realized that starting off a new school year was no different than getting a new volume ready for JSTE. The manuscripts that are included in this issue make me feel that we are starting a new year in JSTE, with new material and new ideas. In addition there are some new authors and subjects in Science, Technology, Engineering, and Mathematics (STEM) that makes learning and teaching enjoyable.

In This Issue

Leading off volume 48-2 of JSTE, Paul Asunda tells us in his manuscript *Open Courseware and STEM Initiatives in Career and Technical Education*, that Science, Technology, Mathematics, and Engineering (STEM) education is a very integral part of Career and Technical Education (CTE). To be successful in today's economies STEM education must stay current with scientific technological innovations that impact curriculums that support STEM education. The author does an excellent job of providing open course software that supports different aspects of enriching STEM activities in CTE curricular subjects.

Following this is another interesting manuscript titled, *Going Virtual: Delivering Nanotechnology Safety Education*

on the Web. This manuscript by Dominick Fazarro, Heshium Lawrence, and Rochell McWhorter looks at STEM education in a very interesting way. The research deals with nanotechnology and its implications for engaging higher education students in the STEM area. In this manuscript the authors talk about the development of Engineered Nano Materials (ENM) and the impact on today's society. The authors stress the need for safety for those working ENMs. They also identify the need for educators to find creative and innovative ways to educate Generation "Y" students in order to develop a competent workforce.

The next three manuscripts deal with the "E" in STEM, (Engineering). The first of the three was a study conducted by David Stricker titled, *A Case Study: Teaching Engineering Concepts in Science*. The study conducted by the author dealt with an innovative high school engineering curriculum designed to discover changes and constraints to increase math and science literacy. To gather data for the research the author observed students, along with curriculum documents, teacher lesson plans, and teacher resources. The results showed a clear emphasis on creative thought and work and a feeling that students tended to be at ease with this style of pedagogy.

Nathan Mentzer continues this Engineering research with his manuscript titled *High School Engineering and Technology Education Integration through Design Challenges*. The author's research was conducted to identify evidence of students' thinking processes through a naturalistic inquiry on the engineering design process. The research question developed by the author dealt with the engineering design process integrated into a high school technology education context. Results indicated that projects developed in the fall semester provided students with experience and skills in areas of engineering design and material fabrication providing them with the foundation needed for the spring semester.

George Rogers, Todd Kelley, and Gary Werner close out Volume 48-2 of JSTE with a manuscript titled *Perceptions of Indiana Parents Related to Project Lead the Way*. This study was conducted to better understand the perception of parents who had students in Project Lead The Way (PLTW) classes in one Indiana high school. Data was collected and graded on a 5 point Likert scale to best provide the authors with information on how the parents perceived PLTW classes their children were enrolled in. Findings showed that higher level income families viewed PLTW classes more favorably than lower income families and as a result were more inclined to have their children pursue engineering courses in college.

As we begin a new school year we are looking for new material for our classes, I would suggest some very good reading; all the manuscripts in this volume of JSTE might provide you with some very interesting material for this coming year.