From the Editor

Jackie Robinson, Molybdenum, and the JTE

Jackie Robinson played baseball for the Brooklyn Dodgers and wore number 42. Molybdenum (Mo), an element that is used in the making of high-strength steel alloys, has the atomic number 42. The Journal of Technology Education (JTE), formerly under the guidance, leadership, and editorial responsibilities of Drs. Mark Sanders and James LaPorte has been published internationally in 21 volumes, (42 issues). Forty-two is more than the next number after 41!

My name is Chris Merrill and I am Professor and Coordinator of the Technology Education Program at Illinois State University. It is my pleasure to welcome you to the Fall 2010 edition of the JTE. Although I would have liked to have published my first edition earlier and on time, I hope that you will understand since my transition into the position occurred very late in the summer. On behalf of the profession, I want to extend a sincere debt of gratitude to Drs. Mark Sanders and James LaPorte for all of their dedication to and exemplary work on behalf of the JTE; it is truly my honor to follow the efforts of these two scholars as I move into the editorial position of the JTE.

Before I highlight the authors and their manuscripts in this issue, I want to uncover an editorial that appeared in the JTE some time ago that still has significant meaning to me as a scholar, educator, and editor. One of the fondest and profound writings in the JTE, at least for me personally, was written in 1994 (Must we MST?) by Patrick Foster, then a doctoral student at the University of Missouri-Columbia. At the time of Foster’s editorial, I was teaching high school technology education and beginning to slowly infuse mathematical concepts into my curriculum. Foster’s writing helped solidify my position as a technology education teacher and greatly influenced my decision to study integrated mathematics, science, and technology at the doctoral level.

Foster’s questions posed in 1994 regarding mathematics, science, and technology remain pertinent today in regard to the addition, infusion, integration of engineering into technology education. In his editorial, Foster posed eight questions to the field. For purposes of this editorial, I would like to restate four of his original questions. The first question was “Is MST being strongly advocated by the profession?” His second question was “What are the benefits of MST?” A third question that guided his editorial was “Are math and science leaders conscious of technology education?” A fourth question was stated, “Will public school math/science integration ever happen?” With the emphasis in our field strongly shifting toward engineering, can we replace Foster’s “MST” with engineering? Can MST be replaced by science, technology, engineering, and mathematics (STEM)? What is the “Must We” for technology education in the decade(s) ahead? Foster stated, “Admittedly, asking questions is easier than
answering them. However, it is probably much better to question while answers are difficult than to reserve questioning until answers are futile” (p. 76).

In this edition of the JTE, you will find a multitude of scholarly articles with research-based findings. For example, Custer, Daugherty, and Meyer contributed an article that synthesizes an extensive literature review surrounding the formulation and concept base for engineering at the secondary level. Mentzer and Becker have prepared an article based on academic preparedness as a predictor of achievement in engineering design. Rose has provided the readership of the JTE with an article based on enhancing environmental literacy and technology assessment skills. Burghardt, Hecht, Russo, Lauckhardt, and Hacker have written a piece on the infusion of mathematics in middle school technology education classes. Foster has provided the field with an article on graduate research in technology and engineering education centered on the years 2000-2009. Finally, Bowen, a graduate student and kindergarten teacher, has provided a book review on Using Technology with Classroom Instruction that Works. Needless to say, there is a wealth of information in this edition of the JTE, so I hope you enjoy reading it as much as I enjoyed the editorial process.

For each of you that have been loyal subscribers and followers of the Journal of Technology Education, I would tend to think that you could identify one or two manuscripts that have significantly influenced your professional approach toward technology education. For newcomers to the JTE, I truly hope that you find “that manuscript” which helps shape your thinking and approach. I look forward to serving the technology and engineering educator’s profession for many years to come, especially during (you guessed it) my 42nd birthday, as Editor of the Journal of Technology Education.

Chris Merrill