From the Editor

Of Melting Pots, Football Drafts, and Professor Jackson

It is known around the world that the United States is a melting pot of people from very diverse ethnic and cultural backgrounds. The melting pot analogy may be applied to the technology education curricula of the US as well. There is no national curriculum for technology education or any other subject in the schools. This should be no surprise to those who know about the history of the country since one of the fundamental principles of Jeffersonian Democracy is local control. Ultimately, local school districts decide what is taught, with some guidance from the states in which they exist.

The recently published *Standards for Technological Literacy* (ITEA, 2000) do not prescribe a curriculum for technology education. Thus, they allow for virtually an infinite number of ways in which a given school might meet them. Though some curriculum development efforts based on the standards are underway under the auspices of the ITEA, the resulting materials will serve only as exemplars and referents of how the Standards might be implemented. Most certainly, they will not be portrayed as the single, best approach.

As developmental work around the Standards continues to go on at the state and local levels, it will no doubt raise the awareness of the importance of technological literacy among constituencies never reached in the past. It could start a wellspring of interest in our field that has never occurred before. In the end, the dream that technology education would become a required experience for all students might be realized, duplicating what science achieved about a century ago.

The notion of technology education becoming a subject in the schools that is just as essential as English, social studies, mathematics, and science is exciting, indeed. There are some challenges, however, that we may wish to ponder. One is that we would have to deal with all the students in the school, not just those who elected to enroll in our courses. This should not be a significant challenge as long as we continue the hands-on, problem-solving approach that has reflected our ideals and represented our uniqueness throughout most of our history. We will need to pay more attention to the needs and interests of those we are not presently serving, but doing so will move us closer to realizing our general education beliefs.

A second challenge is that we will be held more accountable for what we teach — and for what our students learn. In my second year as a teacher, my school principal told me, “I do not care what you teach the children, Jim, just keep them busy and happy.” I naively thought his expression showed the high level of confidence that he had in me. Upon further reflection, I realized that there was really nothing that he could hold me accountable for in my curriculum, since no standards existed. Quite simply, without standards, he did not have to worry about what I was teaching and could devote his attention to other teachers and those required, albeit “more important,” subjects they taught.

It would be terribly unfortunate if a higher level of accountability led us to the dilemma in which so many teachers find themselves today where their entire teaching practice is driven by standardized, paper-and-pencil tests. The content of these tests become, in effect, a national curriculum. Since virtually no such tests for technology education in the US exist, though, we can start *tabula rasa*. We have the opportunity to develop authentic assessment means that focus on *doing* technology and solving technological problems with real tools and materials, not asking our students to answer a series of multiple choice questions for which a context is either absent or contrived. Fortunately we have some guidance in avoiding such a disastrous pitfall through the work of Richard Kimbell (1997) and others.

Perhaps the most perplexing challenge of the opportunity to provide technology education to all students is finding adequate numbers of teachers. We are currently in the midst of the worst shortage of technology education teachers ever. If technology education became a required school subject on par with science, my estimation is that the number of teachers would have to increase by a factor of at least five.

Discussions with faculty at other institutions in the US, along with my own experience, has led me to realize that the majority of students who choose to major in technology education are internal transfers from other programs in the university, often engineering. Relatively few begin their higher education studies in technology education. This is especially true at land grant universities. My best estimate is that, in the year 2000, there were only about eight students who began their first year in higher education as technology education majors across the entire state of Virginia. It is interesting to think about how our field might be different if the majority of our students started collegiate study aspiring to be teachers.

In the spring of each year, the National Football League in the US fills its player vacancies through a draft process. The young men chosen for the draft will begin a career playing professional football. In the year 2000, eleven football players were drafted from the state of Virginia. Generalizing from these data, it is more likely, then, that a student will become a professional football player than it is to start collegiate study as a major in technology education! I know through talking to my colleagues in other states that this situation may be even more dramatic elsewhere. When the ideal to which many of us aspire of having equal proportions of male and female teachers is considered, the odds are even more amazing.

There are approximately 1000 technology education teachers in Virginia. About half teach at the high school level. Collectively, these high school teachers see roughly 50,000 students each day. If each teacher recruited one student as a technology education major every three years, there would be about 150 students entering the universities each year, aspiring to become technology education teachers.

How many professional football players do you know? By the way, Professor Jackson, thanks to you are nearly 40 years overdue for encouraging me to consider a major other than civil engineering.

JEL

References

International Technology Education Association (2000). *Standards for technological literacy: Content for the study of technology.* Reston, VA: Author.

Kimbell, R. (1997). *Assessing technology: International trends in curriculum and assessment.* Philadelphia: Open University Press.