

ACS Presidential Election

Food for Thought

by Thomas H. Lane

Imagine—that second only to the nourishment of our bodies is the nourishment of our minds! As important as maintaining a healthy body is developing and nourishing an active mind. By developing healthy habits and a taste for learning we nourish our minds for a lifetime. Chemistry and the other science-rich subject areas are critical to a balanced intellectual palate. Our children cannot be expected to compete in our global society on just “burgers and fries.” We must find new ways to serve up our discipline in ways that encourage our children and our communities to experiment, to try just one bite. Who knows, some might even go back for seconds!

Education is a significant professional and personal interest for me and one of my primary campaign priorities. Throughout my career I have involved myself in science outreach, continuing education and even classroom teaching. I have practiced outreach at all levels—from kindergarten through graduate school—and am constantly amazed by the potential of our youth. I am passionate about our discipline and worried about the next generation of seekers, inventors, and dreamers. Although I see great potential in our students, I know that a science-based curriculum is a hard sell in many of our school systems. Pizzas and a soft drink are far more appealing to our youth than the more substantial and more nourishing science entrees. Clearly, something more needs to be done to help the next generation understand the potential they possess. Then we can show them how chemistry will help to fuel their aspirations.

One of the most important things that I am doing is listening to teachers (K–12). I’ve engaged hundreds of teachers from all around the world in an important and seemingly simple dialog that begins with a question—“What do you need to become a more effective educator?” Sometimes, I preface the question with the restriction “besides money!”

The outcomes from these conversations have been extremely enlightening. Teachers are master educators who are passionate and committed to their profession. They are brilliant thinkers with the inside-track on what will really work in a classroom. I have learned that it is not about money but it is about five common needs: needs that were universally voiced regardless of country, culture, or other demographic. The five things that teachers consistently told me that they needed are:

1. **Networks:** most teachers teach in isolation. Imagine,



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as a scientist, working in isolation without access to the knowledge and insights of colleagues!

2. **Content in context:** although master educators, they are limited by their prior experience in placing required content in a practical context. How can they teach students about the transforming power of chemistry when they don’t know what a chemist actually does?
3. **Support:** from parents, fellow teachers, administration, community, business and industry. They long for support to try new ideas, to experiment, and to learn. They need friends and mentors to guide them through real examples of science in everyday life.
4. **Courage:** to try new ideas, experiment, and learn. Some teachers feel they’re under-prepared to teach some subjects. Others simply need guidance to help them navigate. Some need courage to give science the priority it needs and deserves.
5. **Time:** to teach, network, experiment, and learn.

As I study these results I am struck by what we, as a Society, can do to help. I pledge to make education a priority during my term. I will work closely with the Division of Chemical Education, our members, and teachers to find ways to address these needs. I will continue to listen to educators and to elevate their voice in the discussions of workforce and higher education readiness. Together, we will find ways to build new networks, put science content in everyday context, and to be the mentor/coaches that teachers need to increase their effectiveness.

I believe that it is our responsibility to help assure that our communities, and especially our children, understand the transforming powers of chemistry. We must be ever vigilant to be sure that the information, the nutrition for our children’s minds, is wholesome and complete. Their leadership will define the world’s future.

With effective outreach, inspiring role models and motivating mentors, we can provide science-based experiences that will stimulate imaginations and offer opportunities for continued discovery and learning. After all, what greater transformation can we affect than nourishing a young mind with science?

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