

*President-Elect...from page 1*

about teaching changed forever. Once we got micro-computers, Logo, and other wonderful software into schools, teaching and learning mathematics would change dramatically. I was convinced of this. Fast-forward to 1994, and we have gotten computers into schools; not equitably, to be sure, but that important issue notwithstanding, many schools across the country have rooms full of computers more powerful by many orders of magnitude than anything I could imagine back in 1981. And the software! Logos abound, and there are graphers, geometry sketchers, symbol manipulators, spreadsheets, and data analysis programs, all with eye-popping visual appeal. If that weren't enough, graphing calculators are becoming so popular that even the students are buying them and bringing them to class. But that's not all. In 1989 NCTM published the first of its *Standards* documents. I loved it! The writers must have read Papert. In the ensuing years these recommendations for change and the rapid development of technology have spawned new curriculum materials and much discussion about ways to teach and assess mathematics more effectively. Then it happened. I was teaching a workshop for high school teachers in New York last summer, and I was discussing my new position as President of CLIME with a local university mathematics educator. She is well-respected, knowledgeable, and very involved with teachers in schools — elementary and middle-schools, no less. So you could imagine my consternation when she asked, "Logo, huh? Are people still doing much with that?" Actually, I have been wondering about this myself for some time. Are people still doing much with Logo? Had they ever been? For a while, Logo use grew rapidly in elementary and middle schools across the country, but I think that trend has reversed in recent years. In many cases "Logo use" consisted of students learning how to teach the turtle TO SQUARE. But then their teachers asked, "OK, now what?" I believe that the inability to answer this question convincingly has limited the impact of Logo in the schools. I also believe that the root issues at play — among them are teachers' conceptions of mathematics, and of their roles in classrooms — are the same as the issues behind teachers' decisions not to allow students to use calculators until they have shown

pencil-and-paper computational facility, or decisions not to allow use of graphing tools until after students have mastered manipulative algebra skills. Why is it that so many teachers who are completely sold on the benefits of technology for their advanced students either are not considering the benefits for their younger or less successful students, or have considered them and have concluded that technology use for these students is inappropriate. Are new technological tools like *Geometer's Sketchpad* and graphing calculators "Logo-like" and, therefore, new ways to make Papert's Logo vision a reality? Or, have these shiny new toys diverted us from the challenging issues raised when mathematics teachers really try to integrate Logo into their classrooms?

Recently, this group changed its name to the Council for Logo *and Technology* in Mathematics Education. Were we, as we claimed at the time, broadening our scope, or were we acknowledging that Logo in mathematics classrooms is passé, and that it was simply time for NCTM's only technology-based affiliate to move on? Today, in the year 5 A.S. ("after Standards"), I think it is important for CLIME to explore these questions. I am convinced that many of the same forces that have limited Logo's impact on most mathematics classrooms will limit the impact of the *Standards* as well. Now, you might dispute my assertions. I hope you will use these pages to do just that. This organization, as small as it is, contains those people most informed on these issues and most able to argue persuasively that technology is an essential component of mathematics classrooms in which students explore, conjecture, search for patterns and principles, argue among themselves and with the teacher, and construct connected and useful mathematics knowledge.

Following Ihor Charischak, the founder of CLIME, as President of this organization is a daunting challenge. I hope to draw heavily on his expertise and connections, and on the varied talents and interests of our members, as CLIME continues its important and influential work in the mathematics education community. □