

From the President's Pen



Can you believe that the end of the school year is approaching? As I indicated in the last issue of *delta-K*, my president's messages this year focus on sharing my thoughts about MCATA's mission statement: "Providing leadership to encourage the continuing enhancement of teaching, learning, and understanding mathematics."

In my previous message, I reflected on what it meant to be a teacher and how I believe the role of the teacher is changing and evolving: in no way is the definition of "teacher" static. In this issue, I share my thoughts on what it might mean to "provide leadership to encourage the continuing enhancement of learning mathematics."

Close your eyes and remember what it meant to learn mathematics for you. My story is as follows: my first memory of learning mathematics is from Grade 1. I remember bundling popsicle sticks in groups of 5 and then in groups of 10. I don't remember how long we did this, but I do have a memory of the actions of bundling and counting. I don't have much memory about learning mathematics until Grade 7 when we were introduced to the "new math"; I do remember practising the drawing of the "squiggly brack-

ets" and Venn diagrams and using set language such as *union* and *intersection*. Then I jump ahead to Grade 9 when I was on an individual learning program, where we did questions from a book at our own pace. Then came Mathematics 10, 20, 30 and 31—I remember memorizing proofs for geometry and solving linear and quadratic equations, solving systems of linear equations, factoring quadratic expressions and memorizing the product, quotient and chain rules for finding the derivative of an expression. I have not elaborated on the experiences; however, they cause me to consider how my own thinking about learning mathematics has been affected, which forms a concept I examine often as I teach and think about teaching.

I believe that we are in an exciting time in mathematics education because we have learned more about how children learn—we can attribute this to the research in cognition over the last 30 years. It is an exciting time because we are learning that children need to be involved in constructing their own meaning of mathematics and that they inherently know a lot of mathematics. This means not only that students must be involved in practice but also that *they* be involved in using mathematics to describe their world. My four-year-old niece Valisa is already a number-and-logic person. She loves to count and she counts everything. I watched her play with her dolls the other day as she sorted and classified shoes. She loves logic puzzles that involve some sort of manipulative. As I watch and talk to her, I am constantly reminded that context is important. Valisa is very good at these things because they are important to her. When I think about my teaching, I think about how I can make the mathematics important to my students. I think that this is our challenge as mathematics teachers. We all learn best when what we are learning is important to us. Think about learning to use a computer. I certainly learned about the capabilities of a word processing program, for instance, when I wanted to complete a particular task.

What steps do we take as mathematics teachers to help mathematics become important to our students? How we answer this question will be affected by our own experiences of learning mathematics. Think about your experiences. How have they affected your beliefs about learning mathematics? I think that answering these questions is recursive, but as we continue to answer and learn more about learning, we provide "leadership to encourage the continuing enhancement of learning mathematics."

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