

# Jean Crawford

AS I REFLECT ON MY YEARS IN education, I realize that it has come almost full circle—from student learner to teacher to teacher learner.

When I was studying to become a teacher, I never expected to be doing so much learning in my teaching career. Math education has been constantly changing, so we educators have had to change with it. The years have flown by but with many rewarding memories.

What fears I had when talk of teaching math with manipulatives and nonroutine problem solving hit the math airwaves! How was I to do this? Because I had not been trained in it, I didn't have a clue how to start, nor was I convinced of the value of teaching in this manner. Wasn't this just for elementary? Wasn't it just "playing" and wasting valuable "practice time"?

Nevertheless, I found problem solving interesting and forged ahead. One day, my students and I encountered a problem that really puzzled us. I wasn't sure how I could help them understand the problem better. I didn't have to: they had torn up bits of paper, identified them as parts of the problem and were using them as "manipulatives" to make the problem easier to solve. I was a bit embarrassed that they had to take the initiative, so I quickly looked around my room to see what I could give them to use

that would work in place of the bits of paper. I had some different colored objects that I gave out to students. This was my start in the use of manipulatives, and I haven't looked back since.

I'm convinced that, used properly, for appropriate concepts, manipulatives are invaluable learning tools that allow for students' individual learning styles. I decided to learn as much as possible about using manipulatives to teach math at the junior high level and how to integrate problem solving. I've attended conferences, inservice sessions and listened to whoever could add to my knowledge and interest in manipulatives—even traveling to Australia on Teacher Plus Awards granted by my school board. From there, I branched out to see what I could make on my own and produced learning activities that allow for the integration of problem solving and the use of manipulatives. This, I believe, leads to teaching for understanding.

A major highlight of my career was receiving MCATA's Mathematics Educator of the Year Award in 1990. As a practising classroom teacher, it was a thrill and an inspiration to receive.

