

Leaders in Mathematical Thinking

Christine Suurtamm - Math and the Media

>> One of the myths that I often hear, a term that really bothers me that the media uses quite a bit is, they talk about this math, this curriculum as being "discovery math," which is sort of an old term that was used way back in the '60s. And somehow it gives parents a connotation that you just sort of put the kids in a room and throw some blocks or manipulatives at them, and let them figure it out for themselves. And if we look at the curriculum, there's a whole variety of what I call "actions," mathematical actions that are in that curriculum. Students collect data. They do determine through investigation. They explain, they describe, they clarify, they sort. So there are many, many different kinds of mathematical actions that occur, and none of them, say, have the word, "discover." And in order to address that curriculum, as a teacher, you need a whole variety of different kinds of tasks that students are doing, in order to do that. Sometimes students are developing their own strategies. But they're developing their own strategies so that they can refine those strategies, and be able to make connections with other student strategies, and eventually develop the most efficient strategy. But I wouldn't call that "discovery learning." It really is very, very carefully -- skilled teacher would have to develop the kinds of lessons that would engage students in those kinds of mathematical actions, so that they can get a deeper understanding of math. Quite often we hear, "Oh, this new math," "This new curriculum." And the curriculum actually has been around since 2005, so it's 11 years old. And even then, it's a tweaking of the 1999 curriculum. And I think in Ontario that we actually -- it's not like the pendulum swings from one thing to another in terms of math. I really see that we've gone through an evolution, not a revolution. I mean, I can think back to many previous curricula, 1985, the whole front matter was on problem-solving. So we really have been headed in this direction. And I don't think it's a bad direction that we're in, if we look at how we compare internationally, we really compare quite well. We are considered one of the top performing countries in mathematics. In Ontario, we have some very high standards and high expectations. And that's great. And we're constantly working to improve and to meet those expectations. And it's actually those high expectations that really put us on the stage in terms of international rankings.