VANESSA RADZIMSKI, University of the Fraser Valley

Making the Math Matter: Centring Children's Mathematical Thinking in a Course for Future Elementary Teachers

The Mathematical Knowledge for Teaching of future elementary teachers, particularly in North America, has been a major concern for researchers for over 30 years (Ball, 1990). Research has brought to light mathematical misconceptions held by elementary teachers (Lo & Luo, 2012), high levels of anxiety around the teaching of mathematics (Olson & Stoehr, 2019), and how these issues affect children's learning (Hadley & Dorward, 2011). Although many teacher education programs require students to take a specified mathematics content course for future elementary school teachers, these challenges persist, with researchers observing elementary teachers avoiding challenging mathematics in their classrooms (Pahmi et al, 2025). In my work teaching such a course, I have questioned what I can do to increase students' buy-in, engagement, and their investment in developing their Mathematical Knowledge for Teaching long term.

In this talk, I will share my experience centring children's mathematical thinking into a mathematics content course intended for future elementary teachers and why I believe this framework supports students' investment in developing their Mathematical Knowledge for Teaching. I will utilize concrete excerpts from teaching multiplication and division of fractions to contextualize how I integrate this framework within the course. Additionally, I will describe my current efforts to develop extended curriculum materials for those who may be interested in adopting the framework for their own practice.