

Math Ed Seminar Series @ Brock

Season 2017-2018

Finger Counting in the Era of Touchscreen-Based Technology

12 February @ 10:00 in TA403

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Mina is serving as an assistant professor (ILTA) in faculty of education at Brock University. Mina's research reflects broad interests in the areas of mathematics and STEM education, and use of technology in teaching and learning augmented by the role of collaborative and sensory engagements. Mina is also serving as a research associate in STEM education and computational thinking in the Faculty of Education at Western University.



Abstract: In this presentation, I will describe how the use of touchscreen-based technology can enable young children's sensory engagement in learning mathematics through introducing a novel iPad application called *TouchCounts*. *TouchCounts* connects touchscreen-based technology with finger-counting and encourages the child to use their fingers to summon objects (numbers) and associate specific gestures to numerical operations.

Drawing upon Nemirovsky's perceptuomotor integration theoretical lens and other foundational aspects of Husserlian phenomenology, the study reports on a preschool child named Alex developing mathematical tool fluency and expertise. Overall, this case study demonstrates that one-on-one multimodal touch, sight and auditory feedback via a touchscreen device can serve to assist in a child's development of number sense.

All undergraduate (including teacher candidates) students, graduate students, and faculty, from Department of Mathematics and Statistics and the Faculty of Education are welcome!

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