THE DEPARTMENT OF EDUCATIONAL RESEARCH, MEASUREMENT AND EVALUATION
Invites you to Attend the Final, Public Dissertation Defense for:

Andrea Humez

Titled:
Elementary School Principals’ Perceptions of Mathematics Instruction and its Role in their Teacher Evaluation Processes

The defense will be held on
Monday, October 19th at 3:00 pm, in Campion 139

Dissertation Committee:
Dr. O’Dwyer (Chair), Dr. Hill, Dr. Mitchell, and Dr. Pedulla
Abstract

This mixed-methods study analyses data from interviews with 29 principals in four school districts, to describe patterns in the principals’ values concerning high-quality mathematics instruction and in the aspects of instruction they noticed when observing short videos of elementary school mathematics classes. Principals valued many aspects of instruction, including elements of general pedagogy, teachers interacting with content and students, content-related pedagogy, students interacting with content, and evidence of student outcomes. As a group, principals noticed the same types of instructional elements that they valued, as well as other, less-commonly-valued elements. Hierarchical linear models were used to compare ratings given to teachers by their principals on three aspects of instructional effectiveness, to scores from video- and student-test-score-based measures of corresponding constructs. Mathematical Quality of Instruction, Classroom Assessment System™ and value-added scores each accounted for unique portions of variance in teachers’ scores on a composite principal rating scale, showing that the underlying “high-quality mathematics” construct measured by principals had some elements in common with each of the other three constructs. However, substantial variance remained unaccounted for, suggesting that principals’ concept of high-quality mathematics also comprises elements not measured by any of the other three instruments.