Washington State University
College of Education

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Will defend the dissertation

Date: June 6, 2018

Time: 2:30 P.M.

Location: Vancouver – VUB 311
Spokane – SCRS 222

Faculty, students and the general public are encouraged to attend.

What Middle School Principals Notice in Mathematics Lessons

Chair: Kristin Lesseig

The role of the principal has changed as societal expectations for schools have increased. With changes in standards that influence teaching and learning coupled with changes in evaluation models that affect school leadership, what the principal can do to support improved instruction remains elusive. This basic qualitative study examined how principals' understanding about mathematics teaching and learning shapes what they attend to during classroom observations and ultimately how they respond to teachers. Nine middle school principals with a range of experience in mathematics educational leadership served as participants.

The study used interviews and a video noticing protocol to look for relationships between the principals' understanding of mathematics teaching and learning and what they noticed during a mathematics lesson. The data analysis process led to the creation of a framework that defines four different levels of noticing of pedagogical content knowledge for leadership ranging from content-neutral observations to noticing that integrates a depth of understanding of mathematical Discourses with elements of pedagogical content knowledge.

This study found that principals who had professional development in mathematics educational leadership more frequently attended to classroom events at higher levels than other participants. Attention to mathematically significant classroom events was necessary but not sufficient for participants to decide to respond to teachers about mathematical events. Findings suggest that principals may benefit from professional development that includes knowledge of mathematical Discourses if they are to support instructional improvement in mathematics classrooms.