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Judith Flowers* (jflowers@umich.edu), 4901 Evergreen, Department of Mathematics & Statistics, University of Michigan-Dearborn, Dearborn, MI 48230, and **Nesrin Cengiz**. *Using a Practice-based Approach to Develop the Mathematical Knowledge Needed for Teaching Concepts Related to Rational Number and Proportionality.*

This interactive session draws on our work with the Michigan Mathematics and Science Teacher Leadership Collaborative (MMSTLC), a project whose goal is to develop middle school teacher leaders who have the skills and knowledge to influence their own practice and that of their colleagues.

MMSTLC centers its work in the use of practice-based resources: narrative and videotaped cases, and examination of student work. These resources offer a vision of teaching situations, such as, images of student thought processes as they are engaged in mathematics investigations, or teaching strategies in action. Equally as important, it provides teacher leaders with the opportunity to deepen their understanding of the mathematics they teach and of how students learn and provides a vision of teaching in ways they themselves might not have experienced.

Our discussion will center on questions such as: What mathematical knowledge and skills are critical to teaching concepts related to rational number proportionality? What activities provide opportunities for teacher leaders to develop these skills and knowledge? How might these activities be orchestrated, not only to deepen teacher leaders' understanding, but in addition, to develop the skills and knowledge needed to help colleagues? (Received August 26, 2008)