THINKING ABOUT MATHEMATICS INSTRUCTION (TMI)

A Study of Elementary and Middle School Principals' Leadership Content Knowledge

Education Development Center
in partnership with
Center for Naval Analysis
MSP Partners to be selected

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http://www2.edc.org/CDT/cdt/cdt_tmi.html

The Goal of TMI

*To further our understanding of how principals' **L**eadership **C**ontent **K**nowledge (**LCK**) affects their supervisory practice*

Leadership Content Knowledge relates to principals'

- Knowledge of mathematics
- Beliefs about teaching mathematics
- Beliefs about learning mathematics

TMI will meet these goals through:

- Research
- Technical Assistance

Focusing on how principals observe and supervise teachers of elementary and middle school mathematics classes, an area of principals' work central to instructional improvement in mathematics

Research Questions

- What is the nature and level of LCK for mathematics typical to K-8 principals?
- What can be learned about LCK from efforts to improve it through professional development?
- How does LCK affect principals' classroom observations, judgments about the quality of instruction, and interactions with teachers regarding their mathematics instruction?

Technical Assistance

Principals professional development will be supported through the course, *Lenses on Learning: Classroom Observation and Teacher Supervision in Elementary and Middle School Mathematics*.

- Ten 3-hour seminar sessions
- Uses a standards-based observation guide
- Nationally field-tested

Course Activities

Participants in the course:

- View and discuss videotapes of teachers and students at work
- Read and discuss relevant articles
- Carry out observation assignments in their schools related to ideas explored in seminar sessions

TMI Project Stages

- Stage I – national survey of K-8 principals that studies their ideas about mathematics, learning and teaching. These principals will be randomly selected from several MSPs.
- Stage II – offer *Lenses on Learning: Classroom Observation and Teacher Supervision in Elementary and Middle School Mathematics*
- Stage III – case studies in 12 schools chosen from a national sample

TMI targets three MSP key features

- Institutional change and sustainability
- Teacher quality
- Challenging courses and curricula

TMI promotes Institutional Change and Sustainability by

- Increasing our knowledge of what principals need to know to support excellent mathematics instruction
- Increasing our knowledge about the kind of training principals need to sustain excellent mathematics instruction
- Helping principals support sustained improvement in mathematics instruction in their schools

TMI promotes Teacher Quality by offering *Lenses on Learning: Classroom Observation and Teacher Supervision in Elementary and Middle School Mathematics*.

This course:

- Teaches principals to support teachers' continued intellectual and professional growth through the supervisory process
- Develops principals' eye for observing mathematics classrooms
- Helps principals rethink how they talk to teachers in pre- and post-observation conferences

TMI promotes the use of Challenging Courses and Curricula

The Lenses course will help principals to understand and support curricula and instruction in which students:

- Construct their own understandings about the mathematical concepts they are studying
- Consider, reconsider, and discuss mathematical ideas
- Learn problem solving and complex reasoning as well as factual recall and computation

For more information

http://www2.edc.org/CDT/cdt/cdt_tmi.html