What Happens in the Classrooms of Math Teachers’ Circle Participants?

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- Three year pilot grant to study various aspects of MTCs
  - Impact on Mathematical Knowledge for Teaching
  - National Data Collection
  - Impact on Classroom Practice

Next: Research Question
Motivation and Goals for Study

- **Motivation**
  - Spread
  - Partnerships
  - Perceived need for MTCs
  - Self-report data
  - High-retention rates

- **Goals**
  - Descriptive case studies
  - Areas for future research
  - Formative feedback for national program

Next: Classrooms
Research Question(s)

- How does ongoing participation in a MTC impact the classroom teaching of mathematics?
- Describe what happens mathematically in the classrooms of MTC participants.

Next: Motivation
Data Collection and Analysis

Collection
- Nine participants from three MTC sites
- Video in Fall 2012, Spring 2013, Spring 2014
- Semi-structured interviews after video
- Lesson plans for video days

Analysis
- Watched by researchers
- Look for “hunches”
- Write up summary of lesson with supporting evidence

Next: Open Discussion
Classrooms of MTC Participants

- Look a lot like other classrooms
  - Range of teaching styles
  - Range of student involvement in reasoning and sense making
  - Range of proficiency with mathematical language
  - Range of questioning skill
- Too little info for any generalizations
- Descriptive case studies of specific teachers

Next: Research Questions
Case Study – Lisa Dixon

- MS and ABD in biology
- University level teaching experience
- Middle school teachers since 2009
- Began participating in MTC in Fall 2010
- Attended all sessions since
  - Multiple summer workshops – at least 5, total of 23 days
  - Academic Year Sessions – at least 20

Next: Open Discussion
Case Study – Lisa Dixon

- Attributes tremendous amount of her professional growth to MTCs
  - Community of support
  - Modeling instructional practices
  - Developing mathematical proficiency
- Sees power in the dual role of learner and teacher
Case Study – Lisa Dixon

- I use the kids words and let the kids do it.
- When I’m walking around, I know it is successful when the students aren’t frantically asking for help – instead they are frantic to show off what they have done.
- I’m increasing the rigor – my students engage in mathematical conversations, interact with the math, make sense of it...even parents are calling in noticing a difference.
Case Study – Lisa Dixon

Developing Leader
- Department Chair
- School Instructional Leadership Team
- School Data Coordinator
- MTC Leadership Team Member
- MTC Co-director
- Math Students’ Circle Co-Director
Summary

- Lots of work in progress
- MTCs have strong impact on some teachers
  - Need more info on what types, why, etc.
- MTC impact on teacher leadership
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