The Tension of Mentor-Mentee Relationships within Participatory Action Research Projects

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Introduction

- ► Participatory action research projects
 - Grounded in practice
 - Alternative model of teacher professional learning
 - Mentor-Mentee relationships
 - Mathematical Knowledge for Teaching (MKT)
- Thesis: The tensions of this work
 - highly dynamic positioning and hard to pin down nature of effective mentoring
 - MKT is both helpful and problematic as a focus/tool for teacher professional learner

Overview of Presentation

- ► Theoretical Framework
 - Mentoring
 - MKT
 - Possible theoretical tensions
- Three Episodes
 - Actual tensions in practice
- Discussion
 - Themes for expanding the discussion around mentoring and MKT within participatory projects
- Conclusions

Theoretical Framework: Mentoring

- ▶ Relational
 - Trust
 - Critical
- A Model for Mentor Disposition Model
 - Directive
 - Interactive
 - Responsive

Theoretical Framework: MKT

- Pedagogical Content Knowledge
- Mathematical Knowledge for Teaching (MKT)
 - For example, specialized versus common content knowledge
 - Connection to effective teaching

Some Possible Theoretical Tensions

- Mentor-Mentee Relationship
 - Trust versus Critique
 - Expert position = directive versus interactive or responsive
- MKT
 - Collaborative versus MKT's defiecincy potential
 - A universal rendering of MKT?

Episode 1: Problem Solving

- A teacher's growth in MKT
 - Strong common content knowledge
 - Emerging pedagogical knowledge
 - Drawing the two together as a beginning teacher
- The positioning of the Mentor
 - Responsive or directive?
- A critical dialogue?

Episode 2: Circle Area

- **A**=πr^2
 - Formulaic versus conceptual
 - A teacher's formulaic background
 - A teacher MAYBE learns from watching children
 - A researcher DOES learn from watching children
- Unpacking the formula
 - Accident vs powerful experience
- Mentor Position
 - Shifting attention from classroom management
 - Expert versus learner

Episode 3: Subitizing

- Some background
 - Knowing cardinality without counting
 - Randomized versus familiar arrangements
 - Correlations to ability
- Expert teacher, beginner teacher and mentor interact
- Subitizing is an important MKT datum?
- A silent mentor?

Three Themes for Expanding the Discussion

- Recall the context: participatory action research, mentoring, MKT
- 1. Mentor continuum is incomplete
- ▶ 2. Binding professional learning to identity
- ▶ 3. Contextualizing MKT

Conclusions

- Tension of theory into practice when mentoring
- In-situ complexity of mentoring to trigger growth in MKT