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 deficiency 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

- $A = \pi r^2$
  - 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