

Problems of teaching in turbulent regions

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Preamble

- This is a lesson study, not a “lesson study”
- Researcher ‘self’ more prominent than teacher ‘self’
- More to *represent* complexity of teaching rather than to *improve* practice
- Study of actual teaching experience, not an exemplary lesson

Problems of Teaching

- Time pressure
- Classroom management
- Student diversity
- Dynamic situation
- Multiple goals ...

My study on Problems of Teaching

- Not organised by “types of problems”
- Lens to study problems intended to reflect the actual complexity of teaching
- Take into account the *context* of problems
- Consider both teacher *actions* and teacher *thoughts*
- Examine *goals* underlying instructional moves

Method

- “Problem” defined as interference to goal(s) of teaching
- I became math teacher of a Year 7 class for 11 lessons on geometry
- ‘Naturalistic’ setting
- Took video data
- Same-day post-lesson reflections

Scope of presentation

- 1 problem juncture at Lesson 2
- Purpose is to illustrate how I analyse the problem and the devices I used

Problem juncture

Discussing worksheet, I asked question, "why some polygons can tile the floor but others can't?"

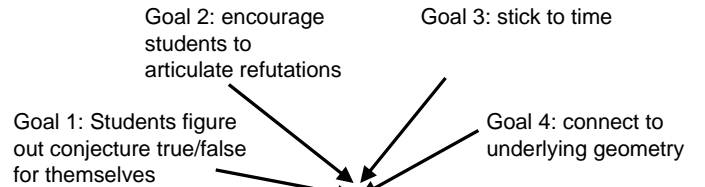


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Problem

Rashid said, "too many sides"

Seen via my goals

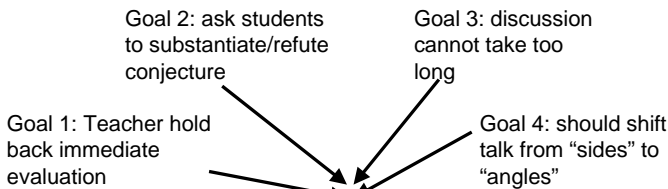


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Problem

Rashid said, "too many sides"

Translated into instructional considerations

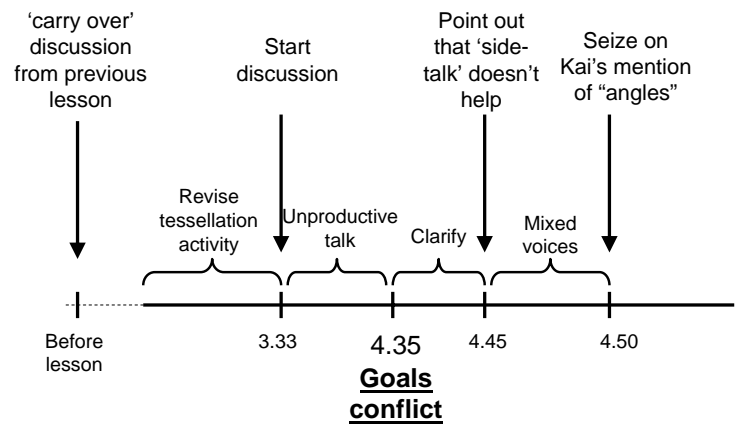


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Problem

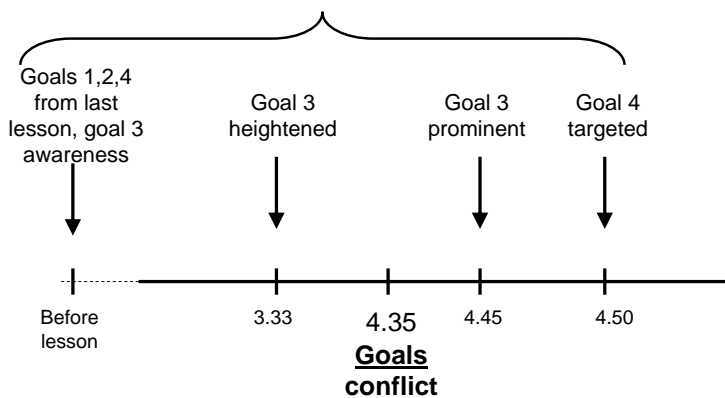
Rashid said, "too many sides"

Problem in wider context



Goals conflict

Turbulent region of goals-flux



Goals conflict

Observations

- Problem involved competing goals
- Time as a dimension of complexity
- Problem not isolated from surrounding context
- To understand actual problems, it helps to study both teacher actions and intentions

Concluding thoughts

- Goal-based methodology uncovers goals underlying teaching behaviour
- Turbulent region frames problem in context of instructional situation
- Helps us see problems (as well as teaching) differently