

SB Baker Parallel Session

Beth Burroughs (Montana State University)

What is MSA like - general picture

3 special courses

- higher math for secondary teachers (discrete math ish)
- modern geometry
- modeling for teachers

↳ perspective

↳ be a professional decision maker
in a stds based classroom

↳ stds learn to be in the profession

① Higher Math

↳ usishin text → good problems

② Modern Geometry

stronger look at Euclidean geometry

↳ it's what they teach

Reynolds' College geometry book

③ Modeling for teachers

↳ Things H.S. students could do

↳ not DES.

Beth gave an overview of the preparation of teachers at Montana state.

She paid particular attention to three courses ~~for~~ specifically designed for teachers and explained the content of those courses as well as the rationale for ~~the~~ how those courses were designed.

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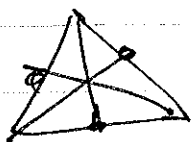
#2 Ole Hall

UC Berkeley teaching concentration for math majors

- History of what is done for teachers
 - from Klein $\rightarrow$ in the clouds
 - German model $\rightarrow$ in the clouds
- passed books around
- follows Wu's notes exactly in his courses.

3 things make a Δ

3 medians



1 angle

2 medians



A mathematician gives his experience teaching classes for teachers (using Wu's notes) despite not being familiar with H.S. math curriculum

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#3

Brigitte Lahme

collaboration between mathematicians
and math educators at Sonoma state univ.

What kind of collaborations are going on?

Most PhDs end up in smaller places
like Sonoma state

↳ so grad students should get involved
in teacher ed courses as grad students.

- teacher professional development
- curriculum development
- program development
- joint presentations at conferences
- co-teach classes

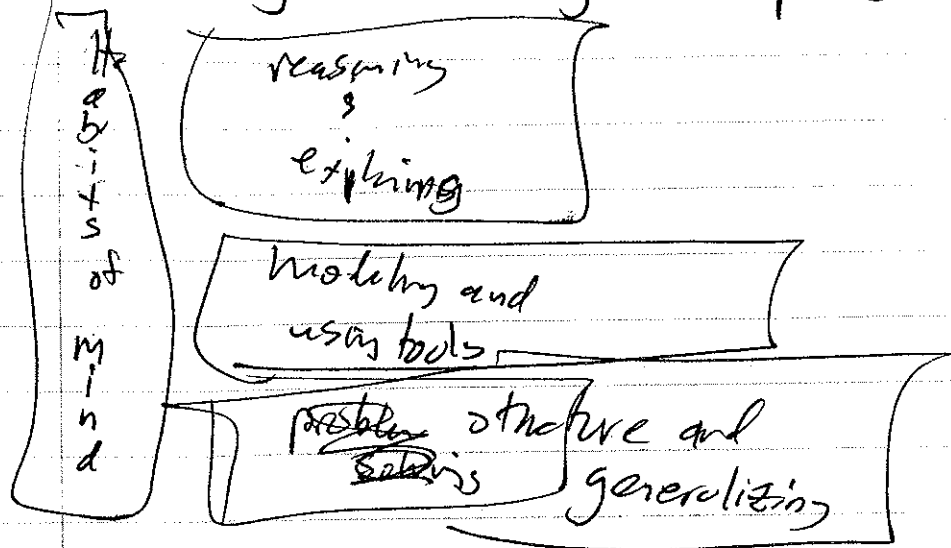
making changes due to CCSS

• standards for math practice

• more math modeling

"5 practices for orchestrating a productive
whole group discussion."

Shifting our thinking from capacity to inclination



Brigitte gave an overview of some of the programs happening at Sonoma state which involve mathematicians and math educators. She gave an example problem posed to teachers of placing $10/19$ in reference to $4/13$ and $2/5$ on a # line which engaged everyone in the room and lent itself to many different ways of reasoning the solution. ~~It was clear that she has a goal~~ She gave a nice perspective of successes they've had as well as some challenges of improving instruction of teachers at pre and in-service level.