Prove It to Myself and Others

NCTM Annual Conference Denver, April 18, 2013 Linda K. Griffith

Context

- Arkansas Department of Education CCSSM PD
- May 2011 June 2013
- CGI Training
- · Interview videos
- · Classroom videos

CCSSMP 3

- Construct a viable argument and critique the reasoning of others.
- What does this look like with 5-8 year olds?

Haley

- She is a first grader in the spring of the year.
- This interview was about 20 minutes long and the video has been edited to 14 minutes.

Think About

- Why is the teachers posing these problems? (What's the mathematical learning goal?)
- How is Haley convincing herself, that here answers are correct?
- What is the teacher doing to encourage Haley to construct convincing arguments?
- Do you think Haley is trying to convince the teacher or herself?
- What other CCSS Mathematical Practices is Haley using?



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Discuss

- Why is the teachers posing these problems? (What's the mathematical learning goal?)
- How is Haley convincing herself, that here answers are correct?
- What is the teacher doing to encourage Haley to construct convincing arguments?
- Do you think Haley is trying to convince the teacher or herself?
- What other CCSS Mathematical Practices is Haley using?

Ms. White's Kindergarten

- · Spring of the year
- High Poverty School in Southeast Arkansas
- · Lesson lasted about 30 minutes
- · Video edited to about 13 minutes

Think About

- What's the mathematical learning goal of the lesson?
- What different ways to these students have to prove their answers?
- How does Ms. White promote the use of Practice 3?
- In what other mathematical practices are these students engaging?



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Discuss

- What's the mathematical learning goal of the lesson?
- What different ways to these students have to prove their answers?
- How does Ms. White promote the use of Practice 3?
- In what other mathematical practices are these students engaging?

Haley Subtracting

• We met Haley earlier, and this was during the same interview session.

Think About

- When did Haley change her mind?
- Is Haley using any mathematics that you might not except from a first grader?
- How does this connect to the work we saw Haley doing earlier?
- What other Mathematical Practices is Haley using?



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- When did Haley change her mind?
- Is Haley using any mathematics that you might not except from a first grader?
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- What other mathematical practices is Haley using?

Professional Learning

- · Seeing is believing.
- Interview pros and cons
- Video pros and cons

Power of CCSSMP

- NCTM Process Standards
- Research points us in this direction.
- It works!

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