

RAMP-A

Theme: *Continuing our Professional Learning*

JUNE 23, 2015

SUMMER INSTITUTE

Summer Institute Goals:

- Time to work as a team for next year.
- Make connections among ideas we discussed over the last three years.
- Plan for our continued professional learning.
- Do some rich tasks.

The last three years...

- What have you learned?

Formative Assessment

Inquiry Questioning

Rich Tasks

Cognitive Complexity

SMP

Discourse

Multiple Approaches

Examining Student Work

Coherence

Planning from Standards

How can you continue learning?

Think, pair, share:

- What would constitute *worthwhile* learning for you?
- What *processes* could help you continue to improve teaching and learning in your classroom?
- How can you *plan* to make learning a part of your work?

- *Collaborative inquiry* is a form of action research, and important stances to take are:
 - To ask questions about our teaching practices and find ways to answer those questions,
 - To remain open to improving our practices,
 - To become aware of our assumptions and biases,
 - To justify our ideas with reasoning related to mathematics, students, and learning, and,
 - To seek evidence of the effects of our practices.
- It is a way to critically examine our practices and to continue to grow professionally.

Collaborative inquiry

Being Critical

- Read the article: **Feedback and small changes** and be *critical* about it.
- What did you do to be critical?
- Discuss and be ready to share ideas about what we could learn from this article, and how being critical helped us.

Reflection 1

- How could intentionally being critical help you grow as a teacher?

Gapfinder Website

- In your inbox should be an email from Jackie with the following website in it:
- <http://www.gapminder.org/>

Task

- You have 30 minutes to scratch out a possible activity students could do in a day or two.
- What could you ask students to do with this?
- You will present out your ideas in 30 minutes to the group in a 30 second overview.

Share out

- What content does their activity cover?
- What SMP are used in their activity?

Break!

Snacks in the back.



Card Sort: Statistics

- As you engage in this card sort and related questions, keep track of the SMP you use and describe how you use them.
- What specifics in the task seem to encourage you to use certain SMP?
- How do the SMP support specific content learning goals?

Supporting higher level SMP

- If you were using this with your students, how could you support improved use of the SMP as students did this task?
- Provide at least 3 specific ideas.

Lunch!

Time to work in your PLCs:

By the end of lunch, on a sheet of paper, write your PLC name and a brief statement describing what your PLC plans to work on during the three days.



CTBA

For those of you who have not done the survey, please take 10 minutes to do so.

<http://goo.gl/forms/jeRFJFcV57>

Formative Assessment for Inquiry learning

- How can we use formative assessment to further our own professional learning?

An Example

The Important Book: What's important about a graph?

- My goals were to try a novel approach to a warm-up, learn about students' understanding of graphs to build on, and to prompt them to think about what they knew about graphs as we started working on new ways to analyze graphs.
- I wanted to hear from every student, so I planned how I would respond so that all students would feel comfortable sharing their ideas, then called on every student.

What is important about a graph?

Shows a picture

Conveys information

Shape is defined by a function
relationship between 2 variables

An infinite number of points

Can show relationship between 2 variables in context
(time + speed)

Can have lines, curves, increase or decrease

Can have positive or negative values (in 4 quadrants)

on a plane with 2 axes

graphs have slopes

Sometimes have x + y intercepts

Some have maximum + minimum values

Some are continuous + some are discontinuous

Some graphs are related to other graphs.

(e.g. the graph of f is related to the graph of f')

The graphs of functions are limited to one output
for each input, but several inputs can have the
same output

Be Critical

- Imagine that you are in a PLC with me and I bring this instance to you.
- What could we learn from this that would improve my teaching and my students' learning?

Generalizing Opportunities

- What routines could you use to improve your learning?
- What goals could you have for your routines?
- What processes could follow the use of this routine to further your learning and the learning of others in your PLC?

Characteristics

- Consider the routines: what characteristics of routines make them good for teacher learning?
- Consider the processes: what characteristics of processes will support teacher and student learning?

Reflection 2

- What ideas do you have for a routine and goal that you could try that would allow you an opportunity to improve your teaching and your students' learning?

Goal 1: Content Knowledge

One of the goals of the grant was to improve teacher content knowledge related to the mathematics of the CCSS addressed in Algebra 1. We want to know how *you* think *your* knowledge in these areas has changed.

Take a few minutes alone to answer this.

Discuss with your group

- Discuss your responses with your neighbors, then revise your answers if the discussion prompted any ideas.

Goal 2: SMPs

Another goal of the project was to improve teacher understanding of and ability to teach the SMP. We want to know how ***you*** think ***your*** understanding of the SMP has changed.

Take a few minutes alone to answer this.

Discuss with your group

- Discuss your responses with your neighbors, then revise your answers if the discussion prompted any ideas.

Sharing Ideas

- All

Celebrations

- Individual
- School
- Greater Spokane Area

Evaluations of the day