

Theme: *Continuing our professional learning*

RAMP-A

JUNE 25, 2015

SUMMER INSTITUTE

Today's Goals

- * Ways to start the school year
- * Teaching for Coherence
- * PLC time to work
- * Examining the SMP: Algebraic Reasoning
- * Sustaining our learning together

Reflection 1

* Look around the room at the ideas you explored the first two days:

What connections do you see among the main ideas?

Ways to start the school year

- * Envision Student Behavior in December,
- * What Mathematician attributes would you like to see?
- * What are the most important skills you want to grow?
- * What types of discourse do you want to happen in your room?

Cooley Rubric

For better or worse, I am intentional

From day 1....

Derby On Marco Hill

Break



Regroup

Each person:

Create an algebraic expression using only the variable x , at least 3 different numbers, and 2 different operations. Only use those operations seen in Algebra 1 (e.g. no logs). Write it on a 3-by-5 card.

Regroup

- * Line up in order by the value of your expression when $x=-10$ (least to greatest, left to right)

Coherence

- * What ideas do you think of when you think of teaching and learning with coherence?

Teaching for Coherence

What would teaching and learning the distributive property with coherence entail?

Create a poster with your group's ideas and post it on the wall near your table.

Suppose...

- * You ask students to use the distributive property to rewrite the expression in another form:

$$2x(3x+2)+5(x-1)$$

1. When you have just introduced the topic.
2. When you are in the middle of working on the topic.
3. When you are ready to introduce factoring and want to make connections.

Create a Poster

- * What ideas would you focus on at each of the times? What questions would you ask? Create a 3-part poster that describes what you would do at each of the times:
 1. When you have just introduced the topic.
 2. When you are in the middle of working on the topic.
 3. When you are ready to introduce factoring and want to provoke prior knowledge to build on.

A Teaching Event

“My favorite No”

* https://www.youtube.com/watch?v=Rulmok_9HVs

Plan

Plan how you could use a similar teaching strategy as a 10-minute warm-up to a lesson on factoring while supporting coherent learning.

Put it on a poster and be ready to share.

Lunch

Time for team work.



Regroup again

- * Using the same expressions on your 3-by-5 card that you had earlier, line up by your value when $x=100$.

Being Explicit with SMP

- * When teaching, it is important to be explicit with students when you are using SMP, and also to name and describe it when *they* are using them.
- * Whenever possible, distinguish higher levels of use of the SMP and how their use helped students better solve a problem or make sense of the concepts and procedures.
- * When teaching, look for ***potential use*** of SMP or ***improvement*** of that use.

Carousel: Step 1

- * 3 minutes
- * Do the problem as students might do it, showing your work.
- * Move clockwise

Carousel: Step 2, 3, 4

5 minutes each

Attempt the problem *a different way* than the work already on the poster.

Move clockwise

Carousel: Step 5

- * Move clockwise to another Carousel and to the problem you started with, finding a pad of Post-It notes on your way.

7 minutes

- * Examine the “student work” for use of or potential use of SMP, and write a single prompt or question you would say to the student to prompt use of or improved use of an SMP.

Carousel: Step 6

- * Move clockwise and take the poster back to your table.
- * Suppose you are going to use this task in your classroom:
 - * How would you set this task up for students in your class?
 - * How would help them use more sophisticated levels of the SMP while they engaged in it?

Reflection 1

- * Choose one SMP to consider as you answer: What new idea do you have for supporting students' development of this SMP?

Structured Reading: “*Best Practice*”

- * After Sections 1, 2, and 3, briefly write and discuss the most important (a) issue(s) and (b) suggestion(s) from that section
- * Section 1: Introduction, “Why the Enemy?” and “plug-and-play approach” (p. 48-middle of p. 50)
- * Section 2: “uncouple learning goals from instructional methods” (p. 50-middle p. 51)
- * Section 3: “focus on activity instead of achievement” (p. 51-middle p. 52)
- * Conclusion: “A More Effective Approach” – write the most important suggestions

Reflection

- * How do these issues and suggestions apply to you and your teaching?
- * Add **specific goals and actions** to your May plans for your sustained learning and improvement

Application

- * As a group, choose a unit of study and decide which lessons each person will analyze
- * Individually:
 - * Identify **specific learning goals** for each lesson within the unit
 - * Identify **past strategies** you have used in this lesson
 - * Identify ways you might **improve or revise** these strategies to better meet your learning goals for this lesson.
- * Share the lesson ideas and align strategies across the unit

Personal Plans

- * Revisit your *May* sustained learning plans in light of your lesson and unit revisions
- * Add specific goals and actions related to the ideas you generated

Sustaining our learning together

- * RAMP-A will send out four electronic newsletters for teachers throughout the next year.
- * It will be important to include ideas and experiences you would like to report or share (e.g. items similar to those shared yesterday, the ASN that Ferris shared, the mindset work that Shadle shared, other PD you are involved in (Bridges, State Fellows, etc.), efforts to improve equity and/or motivation, or the work some teams are doing with their STEM-PD technology).
- * PLCs commit to sending something to Jackie on one of the dates: October 15, January 15, or March 15.

Dissemination Website

* <http://sites.ewu.edu/jcoomes/>