



Welcome Back!

C²S² – Mathematics

Grades 3-5

Session 2



Agenda

I. Welcome

II. Warm-Up

III. Evidence of SMPs 1, 4, and 6

IV. Analyzing Student Work

Break

V. Trying on the Math

VI. Instructional Shifts

Lunch

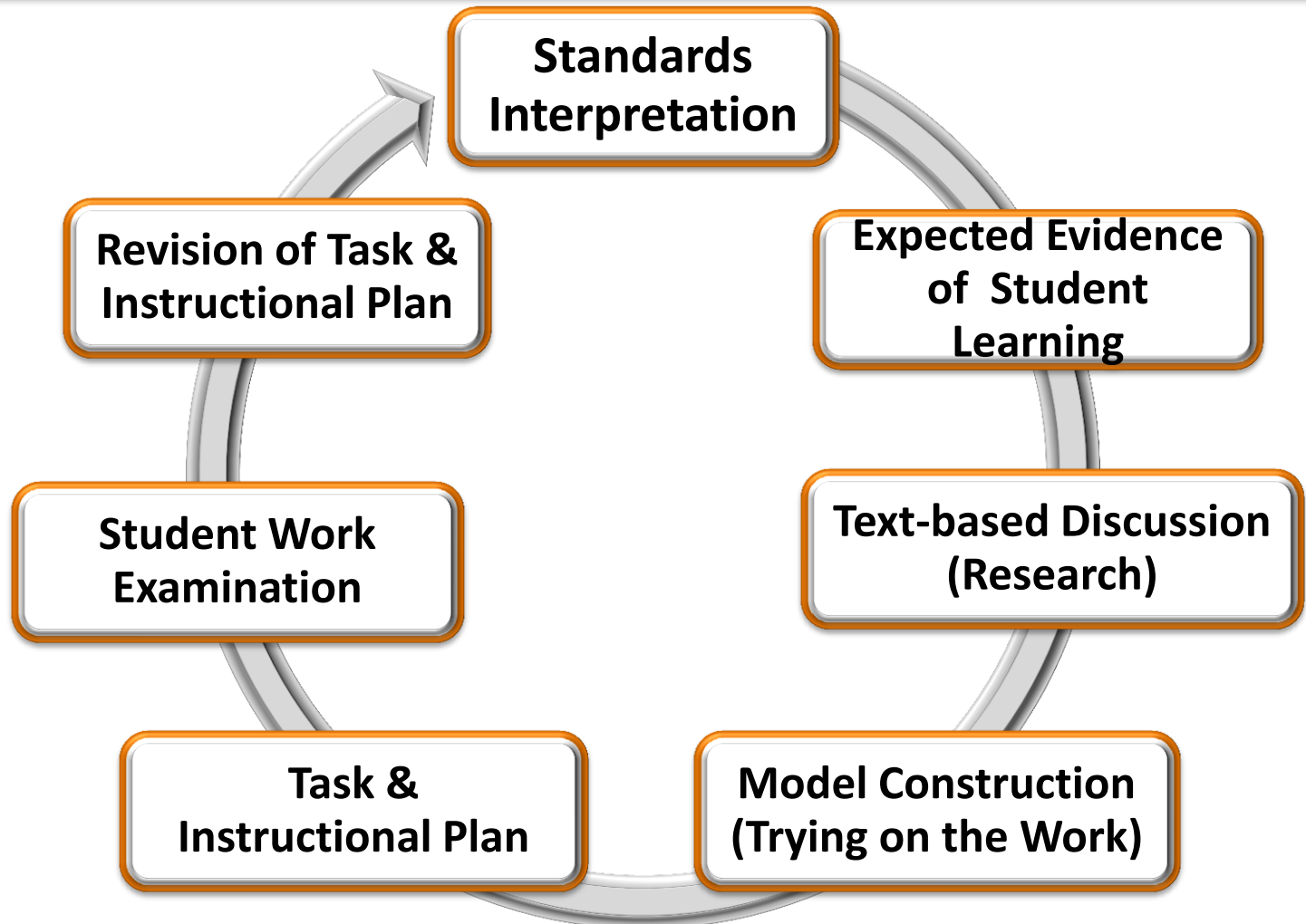
VII. Instructional Shifts continued

VIII. Lesson Planning

IX. Evaluation/Reflection



Design Methodology





Evidence of SMPs

Review: SMPs

#1: Making Sense of Problems and Persevere in Solving Them

#6: Attending to Precision

Think of an Exemplary Student Response that Provides Evidence for Math Practice 1

Is $\frac{7}{8} < \frac{8}{9}$? Explain your reasoning



Analyzing Student Work

Reviewing Evidence of the
Standards of Mathematical
Practice 1, 4, and 6



Analyzing Student Work

- Work in Pairs or Triads
- Look at the Provided Student Work Samples
 - ✓ Complete the “Evidence Recording” Template
- Create Two Piles:
 1. Samples that ***Have*** Evidence of SMP 1, 4, or 6
 2. Samples that ***Don't Have*** Evidence of SMP 1, 4 or 6



Analyzing Student Work

- Examining Your Student Work
- Work in Pairs or Triads
 - ✓ Complete the “Evidence Recording” Template



Analyzing Student Work

As a Table Group...

- Choose 1 or 2 Pieces of Student Work that Exemplify Evidence of Progress Towards Practice 1, 4 or 6
- Place a Post-It on the Student Work that Identifies ***Where*** in the Work Students Were Making Sense, Persevering, and/or Attending to Precision



Analyzing Student Work

- Gallery Walk
 - Place Your 1-2 Pieces of Student Work (with the Post-Its) on the Wall
- As You are Walking, Take Post-Its
 - Write Questions and Comments



Break Time

10 Minutes



Trying On The Math

Adding Fractions with Like Denominators



Instructional Shifts in Action

- **Focus:** What is the enduring mathematical understanding from this lesson?
(Share as a Table/Whole Group)



Instructional Shifts in Action

- **Coherence:** If students can understand adding fractions with like denominators, how does that help them when they get to adding fractions with unlike denominators?
(Share as a Table/Whole Group)





Instructional Shifts in Action

- **Rigor (Fluency, Deep Understanding, Application, Dual Intensity):** What did the teacher do to allow students to gain an understanding of adding fractions?

(Share as a Table/Whole Group)



Lesson Planning Part A

- Use the Enhanced Lesson Planning Guide
- Complete Section A
 - What is the focus of your lesson?
 - What should students have learned beforehand (prior knowledge)?
 - How will their new understanding enrich future learning?





Lunch

1 Hour



Instructional Shifts

Read Shift: **Focus**

- Write 2-3 Key Ideas
- Write Down What A Teacher's **Shift in Focus** Looks Like in the Classroom
- Whole-Group Discussion:
 - ✓ In Relation to the Prompt for "Focus" on your "Shifts in Action" Worksheet, What New Understanding Do You Have?



Instructional Shifts

Read Shift: **Coherence**

- Write 2-3 Key Ideas
- Write Down What A Teacher's **Shift in Coherence** Looks Like in the Classroom
- Whole-Group Discussion:
 - ✓ In Relation to the Prompt for “Coherence” on your “Shifts in Action” Worksheet, What New Understanding Do You Have?



Instructional Shifts

Read Shift: **Rigor (Fluency, Deep Understanding, Application, Dual Intensity)**

- Write 2-3 Key Ideas
- Write Down What A Teacher's **Shift in Rigor** Looks Like in the Classroom
- Whole-Group Discussion:
 - ✓ In Relation to the Prompt for “Rigor” on your “Shifts in Action” Worksheet, What New Understanding Do You Have?



Answer Getting vs. Learning Mathematics

USA:

- **How can I teach my kids to get the answer to this problem?**

High Performing Countries:

- **How can I use this problem to teach the mathematics of this unit?**

[Phil Daro]



Teaching at the Speed of Learning

- More Time per Concept
 - More Time per Problem
 - More Time per Student Talking
- = LESS Math Problems per Lesson**

[Phil Daro]



Lesson Planning Part B

- Complete Section B of the Lesson Planning Guide
- Be Prepared to Share Your Work
- Share Your Expected Evidence on a Half-Sheet of Paper
 - Turn It In





Lesson Planning Part C

- Complete Section C of the Lesson Planning Guide
- Be Prepared to Share Your Work





Reflection

- Please Complete the Evaluation Form

Thank you!