Welcome Back!

C²S² ç Mathematics

Grades 3-5
Session 2

Agenda

I. Welcome

II. Warm-Up

III. Evidence of SMPs 1, 4, and 6

IV. Analyzing Student Work

V. Trying on the Math

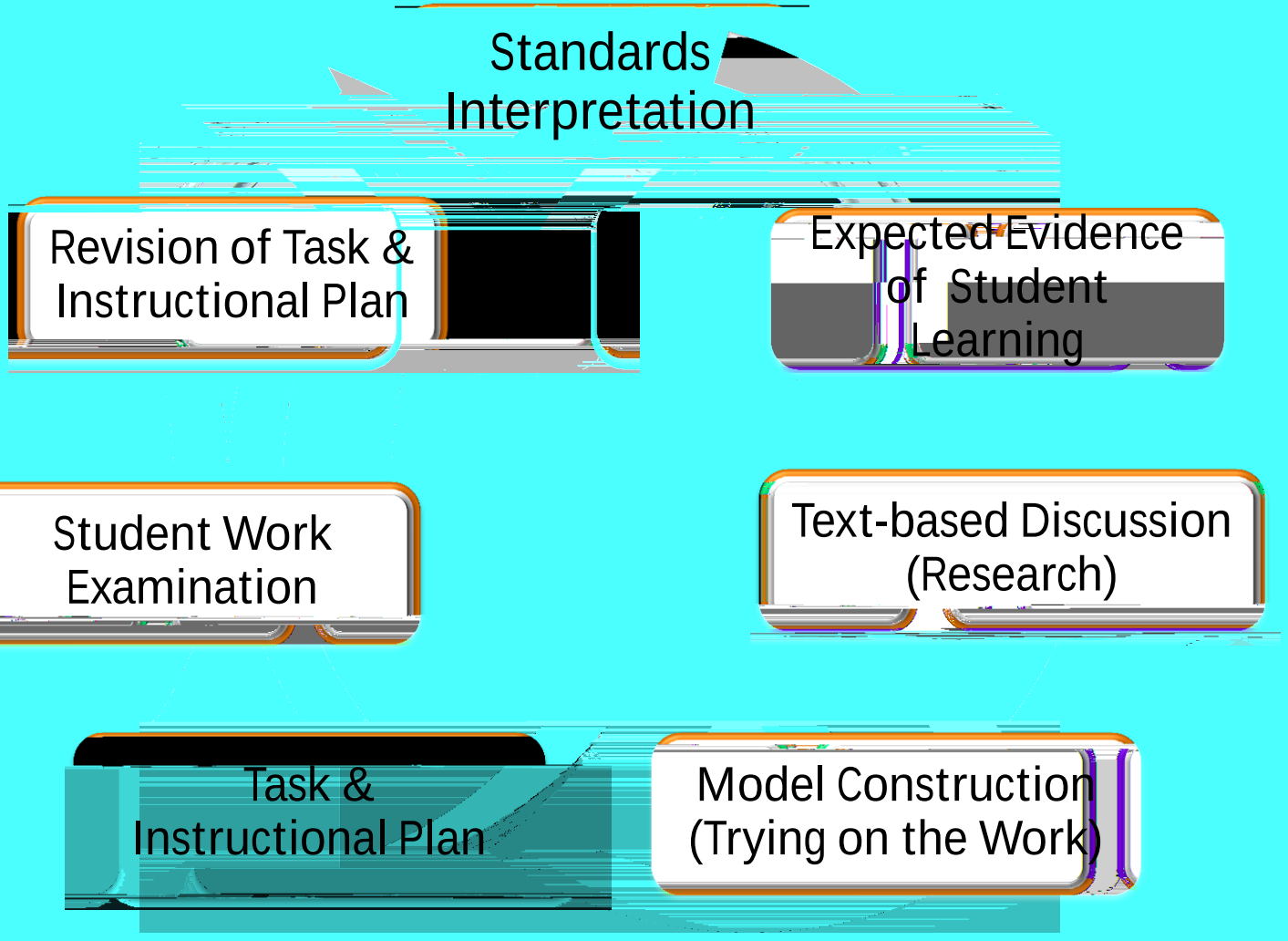
VI. Instructional Shifts

VII. Instructional Shifts continued

VIII. Lesson Planning

IX. Evaluation/Reflection

Design Methodology



Evidence of SMPs

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

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

Analyzing Student Work

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

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Putting Children First

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)

- Use the Enhanced Lesson Planning Guide
- Complete Section Am[(ess)4(on)] TETBTLf[

Lunch

1 Hour

Read Shift: Focus

- Write 2-3 Key

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!