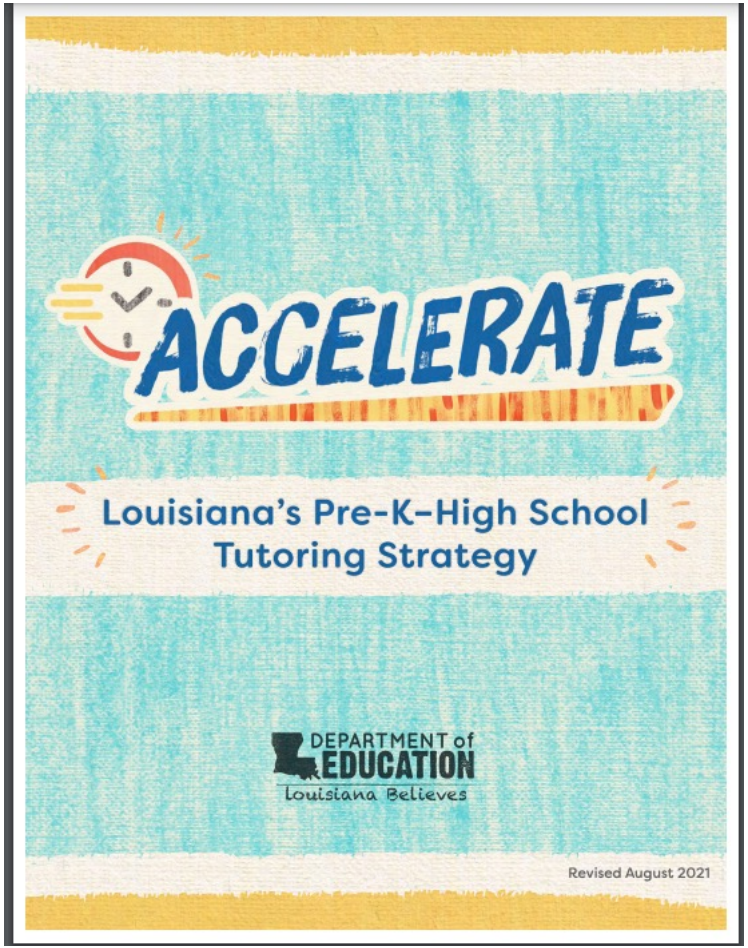
LDOE: Acceleration in Mathematics

Planning to Address Unfinished Math Learning
Part 2

Asynchronous Professional Learning Series

Accelerate Initiative: Vision

All students can achieve high expectations regardless of their background, family income, or zip code.



Community Agreements

Come as you are

Learning is iterative

Embrace the pause

Learning Outcomes

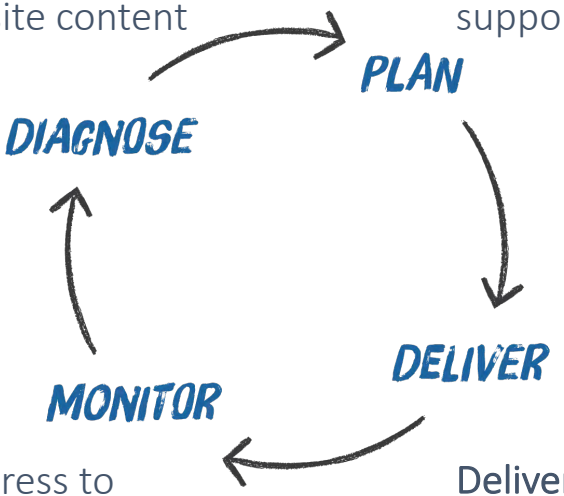
Through today's asynchronous learning, participants will:

- Explore how the Math Planning Guide can support teachers in engaging in student work analysis to accelerate students towards on-grade level content in the mathematics classroom.

Acceleration in Mathematics

Diagnose students' unfinished learning of the prerequisite content and skills.

Plan for timing and content for acceleration support for all students.



Monitor progress to adjust supports based on student performance.

Deliver just-in-time, curriculum-aligned support.

Unpacking Student Understanding

What are some rewards of **collaborative** student work analysis?

- Gaining a more comprehensive understanding of what students know and are able to do over time.
- Embedding professional development in teachers' daily practices to improve student achievement.
- Building a sense of community.
- Fostering a culture that collaboratively assesses the quality and rigor of teacher work.
- Developing shared, public criteria to assess student work.

— Adapted from Burke, Peggy H. (2001). *Turning points: Transforming middle schools: Looking collaboratively at student and teacher work.*. Boston, MA: Center for Collaborative Education. p. 5. Available at http://files.eric.ed.gov/fulltext/ED509798.pdf

Unpacking Student Understanding

Shifting our thinking…

- It’s not about me; it’s about us.
- It’s not about fixing someone; it’s about collaborative learning.
- It’s not about telling how; it’s about learning with.
- It’s not about my classroom; it’s about our program.
- It’s not about my kids; it’s about our kids.
- It’s not about being perfect; it’s about continual growth.

Unpacking Student Understanding

Ground rules for collaborative student work analysis

- ✓ Focus on the evidence, not on what you think the student knows.
- ✓ Be aware of personal bias.
- ✓ Be in the spirit of dialogue.
- ✓ Maintain a professional atmosphere.

Three-Stack Protocol

Unpack student understanding

Purpose: Team members will analyze student work to formatively assess the nature and extent of student understanding and to determine the implications for instructional practice and effectiveness.

Time estimate: 30 to 40 minutes

Ground rules for student work analysis

- Focus on the evidence, not on what you think the student knows.
- Be aware of personal bias.
- Be in the spirit of dialogue.
- Maintain a professional atmosphere.

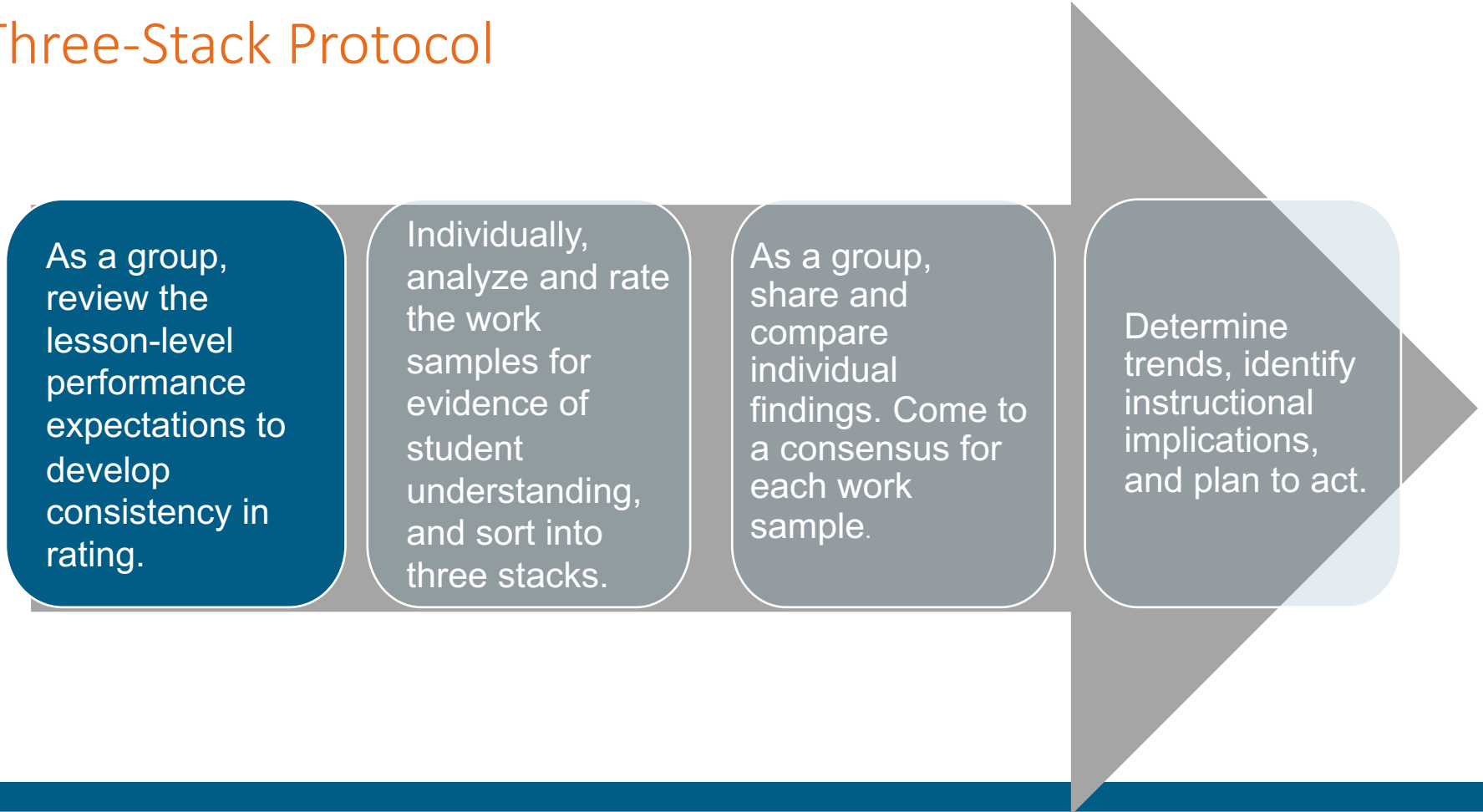
Process

- Review the lesson-level performance expectation to develop consistency in the implementation of a rating system.
- Individually analyze and rate student work samples for evidence of student understanding, and sort these samples into three stacks:
  - Stack 1: Most target dimensions are not evident.
  - Stack 2: Most target dimensions are evident.
  - Stack 3: All target dimensions are clearly evident.
- As a group, share and compare findings reaching consensus for each work sample.

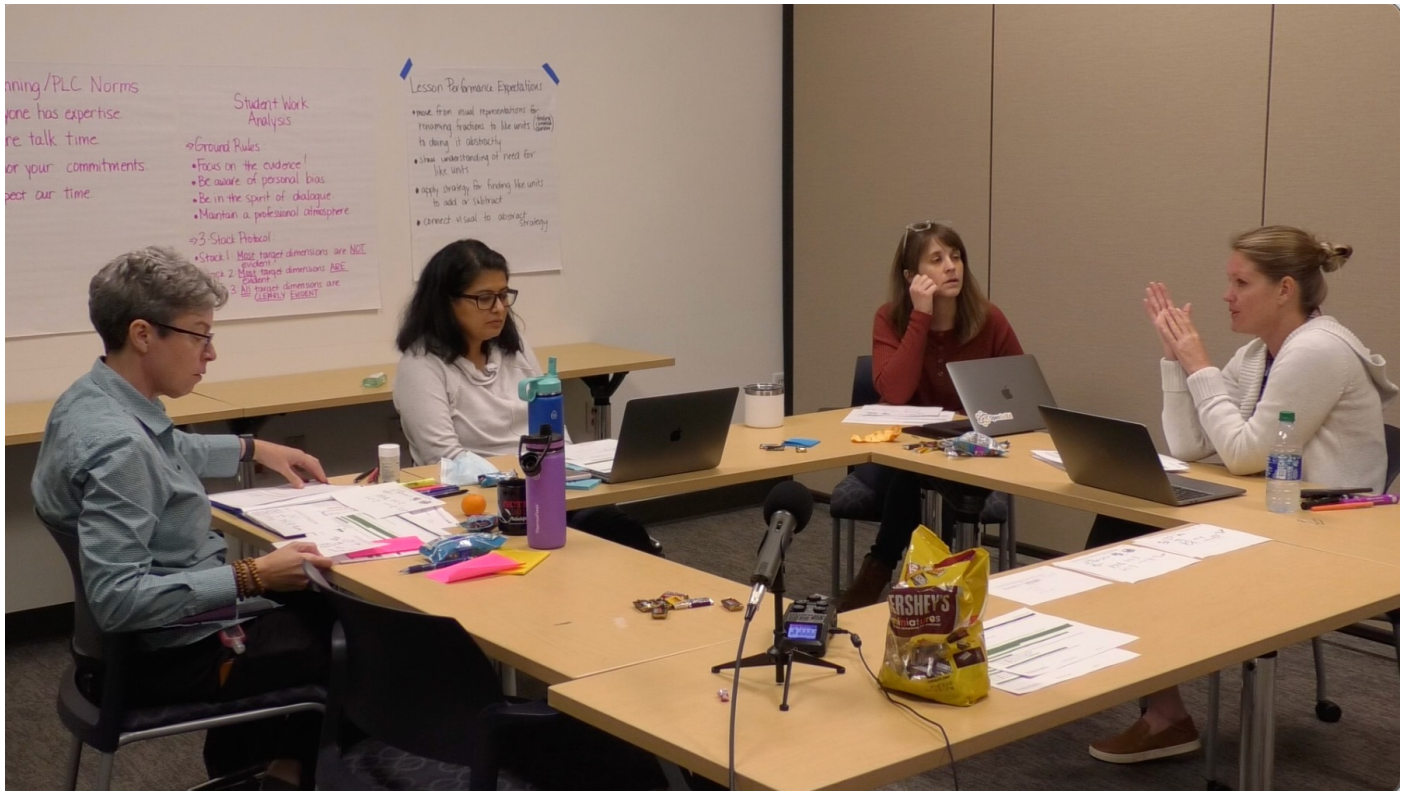
Preparing for Student Work Analysis

- Select a representative sampling of student work
- Remove all student names and establish an alternate convention for referring to the samples
- Provide copies of each sample for each team member

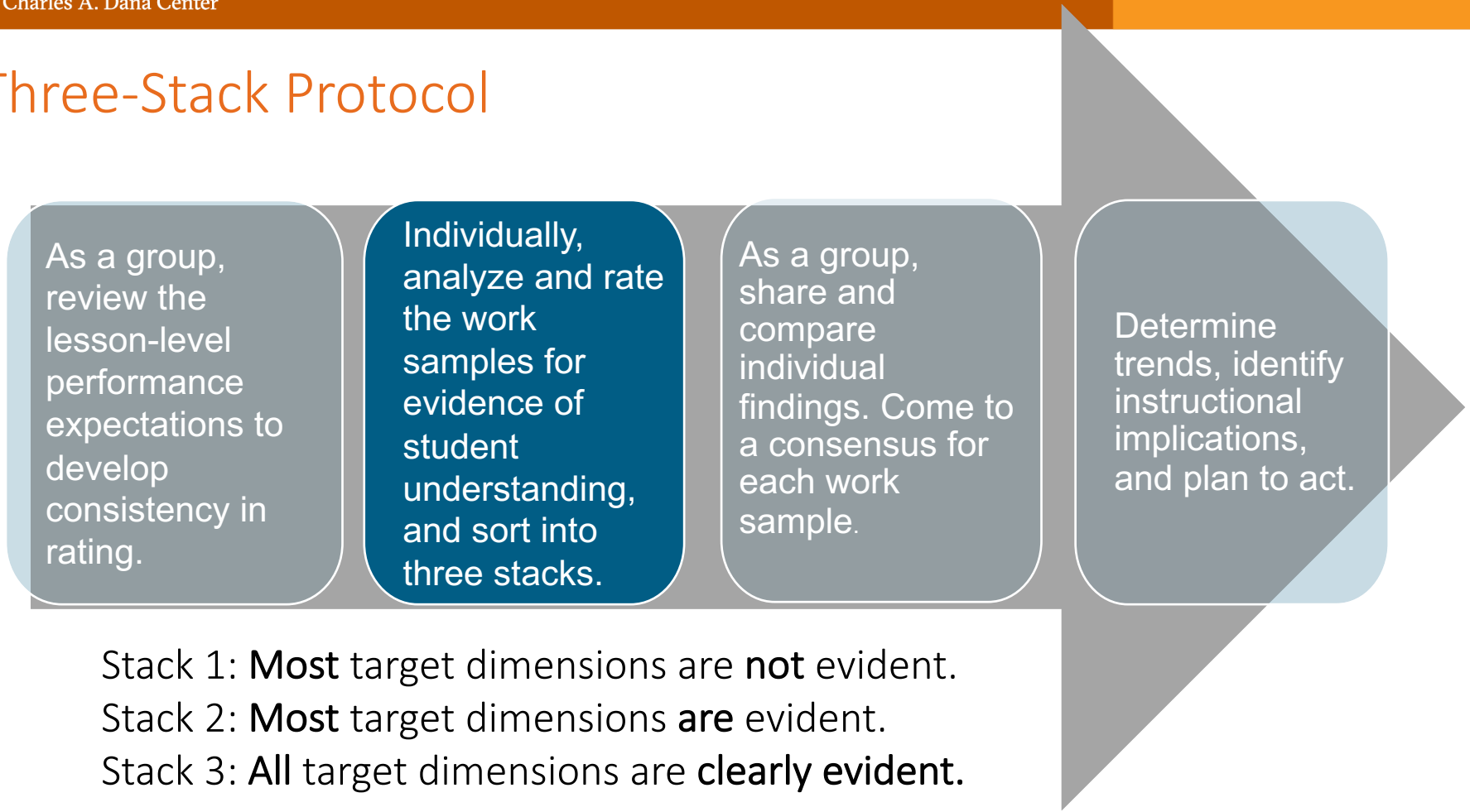
Three-Stack Protocol



Setting the Stage

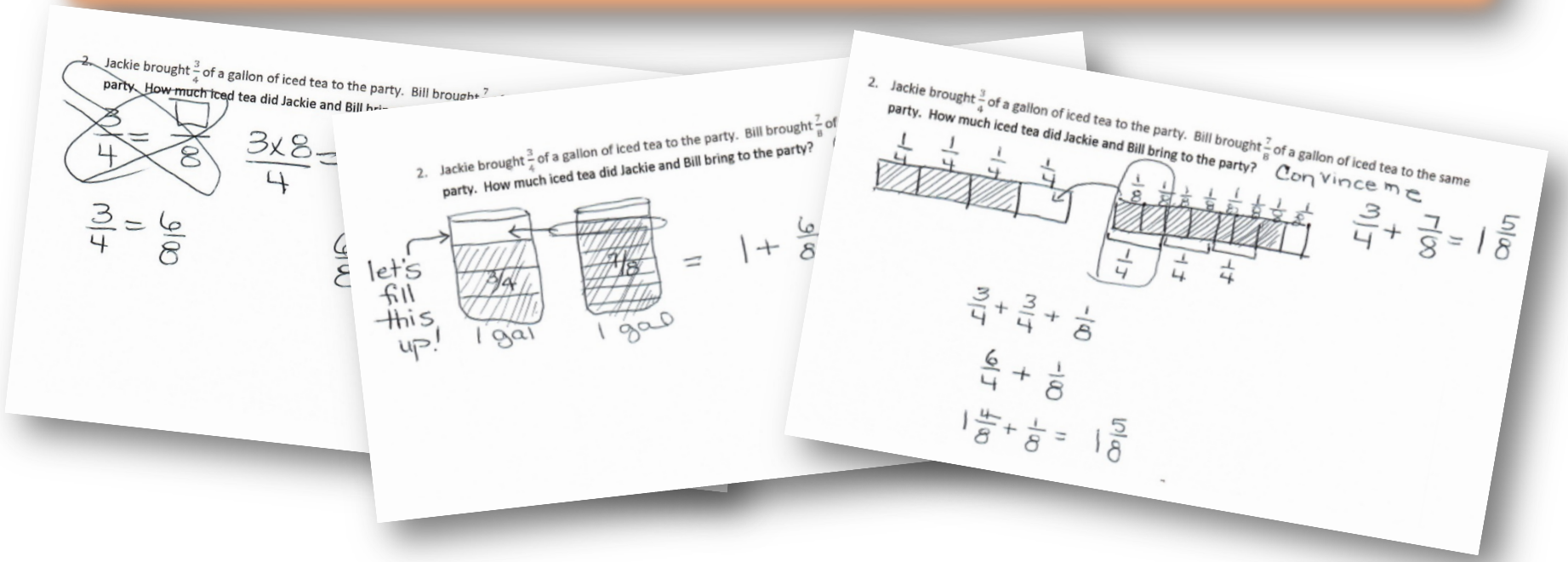


Three-Stack Protocol



Stack 1: **Most** target dimensions are **not** evident.
Stack 2: **Most** target dimensions **are** evident.
Stack 3: **All** target dimensions are **clearly evident.**

3. Jackie brought $\frac{3}{4}$ of a gallon of iced tea to the party. Bill brought $\frac{7}{8}$ of a gallon of iced tea to the same party. How much iced tea did Jackie and Bill bring to the party? Convince me.



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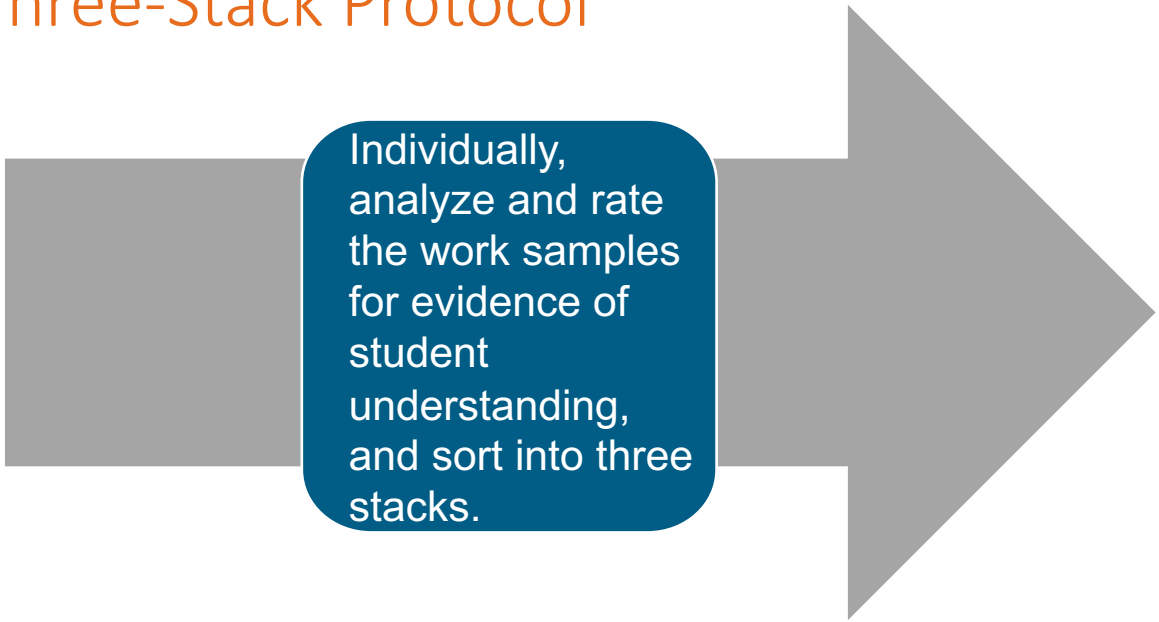

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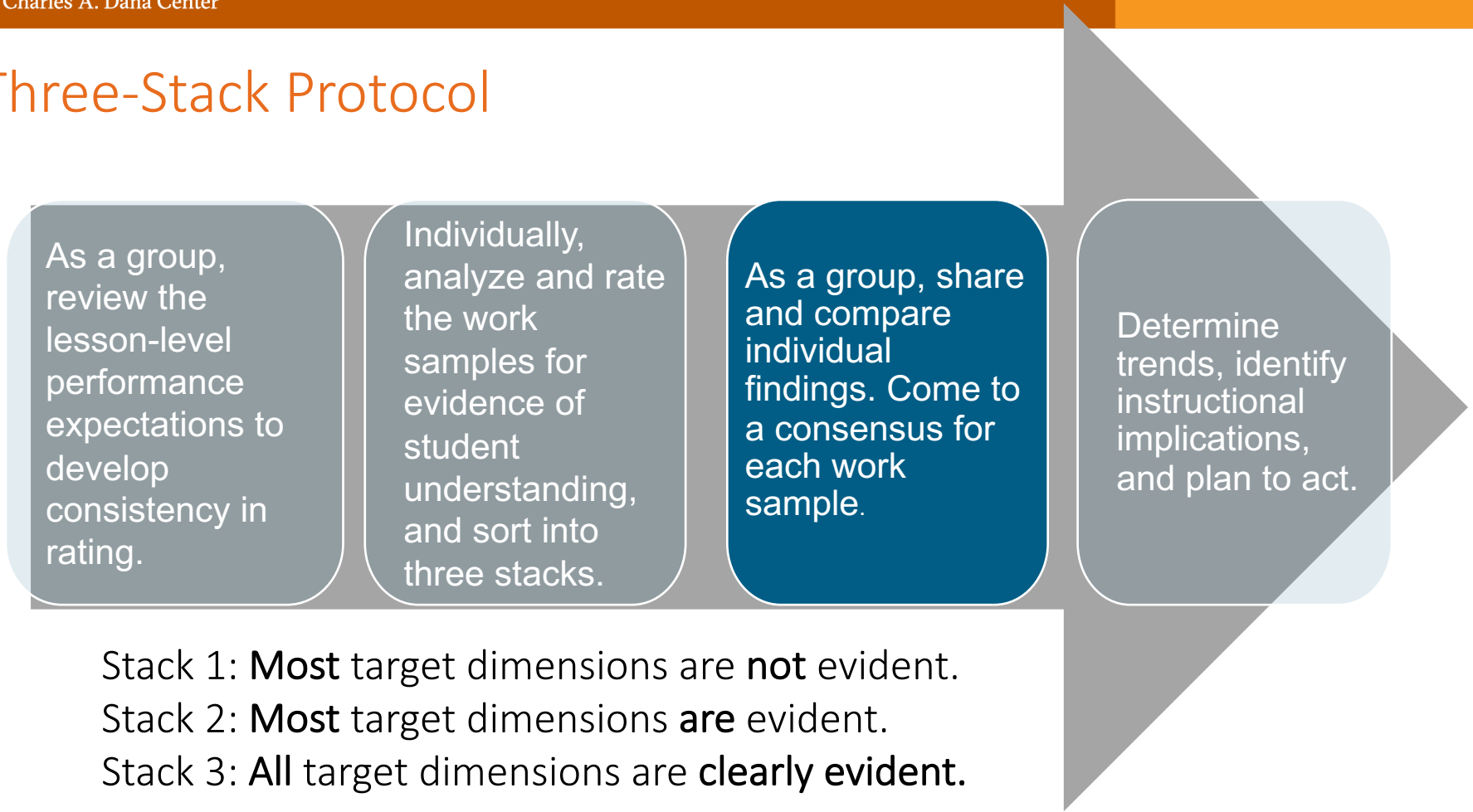
Lesson Performance Expectations

- Move from visual representations for renaming fractions to like units (common denominators) to doing it abstractly
- Show understanding of the need for like units
- Apply a strategy for finding like units to add or subtract
- Connect a visual to an abstract strategy

Three-Stack Protocol



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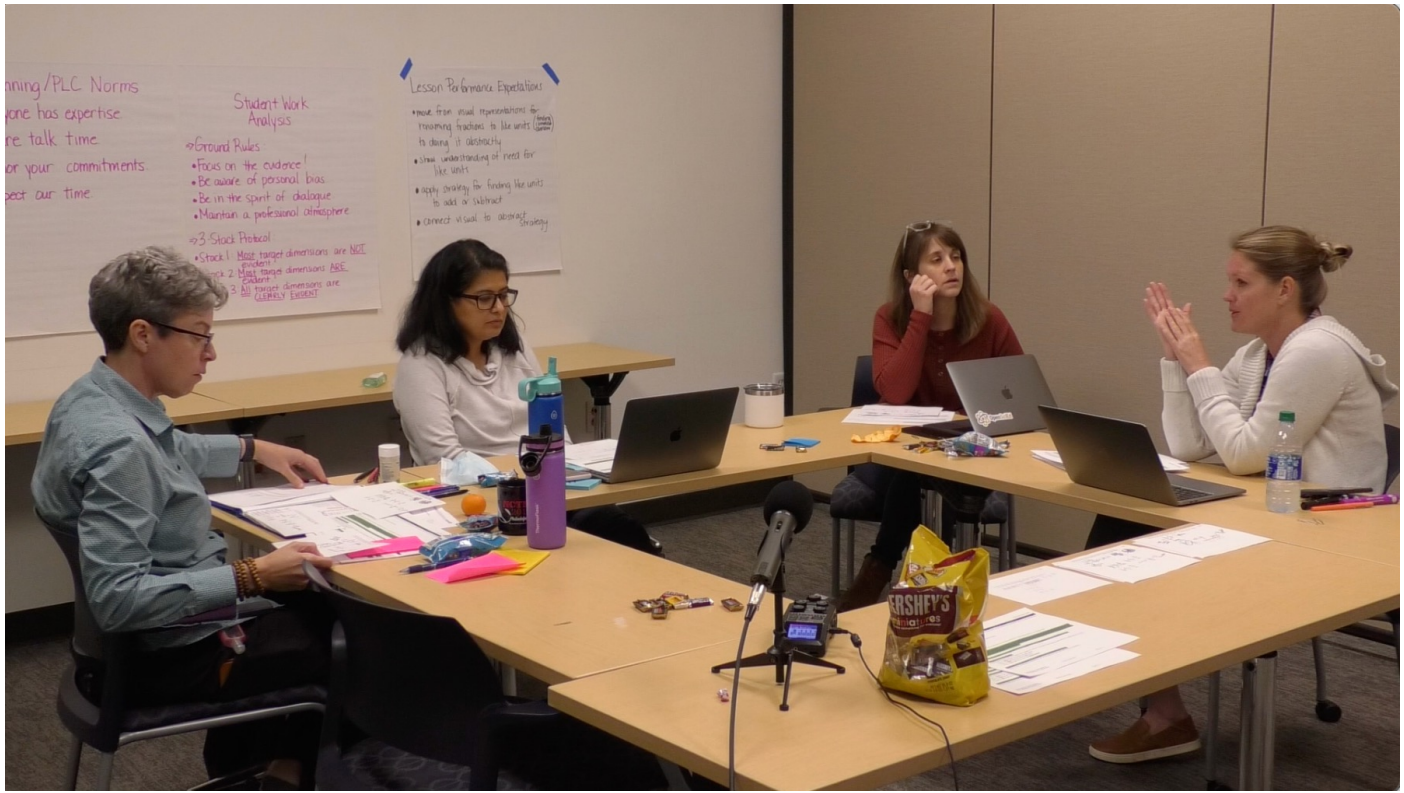
Collaborative Student Work Analysis



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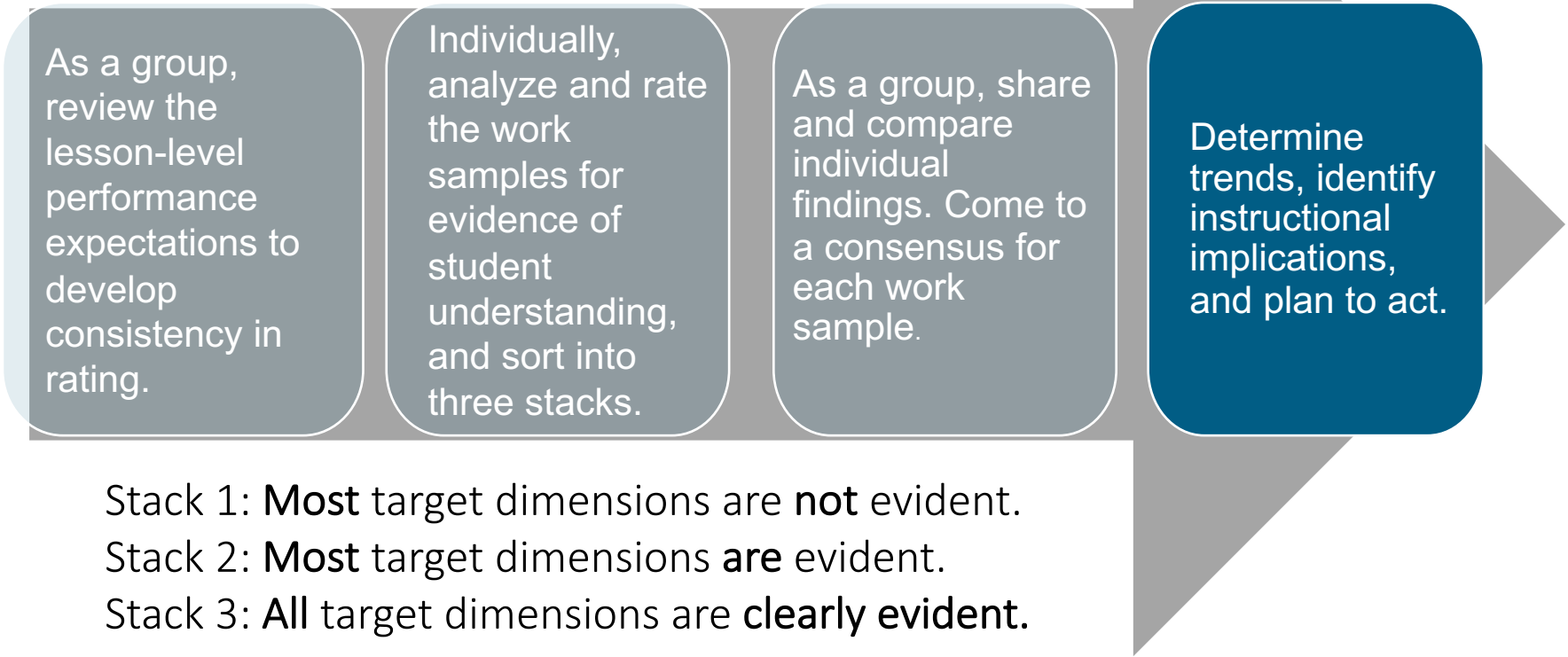

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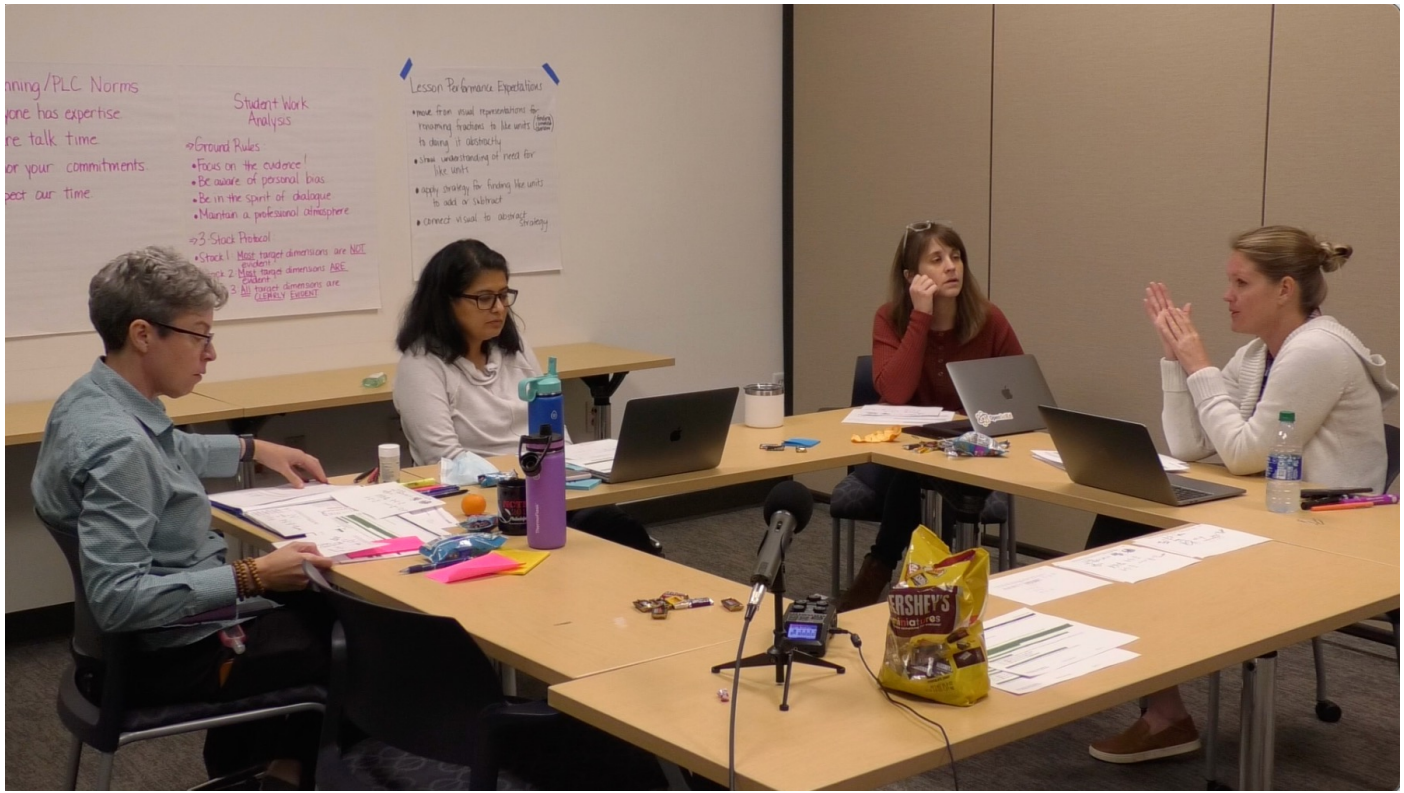

Reflecting on the Process

How does the three-stack protocol support teachers in making timely instructional decisions as they facilitate acceleration in their mathematics classrooms?

How does collaborative student work analysis promote high-quality math instruction for all students?

What are your next steps for implementing your learning from this module?

Next Steps…

- Share your knowledge
- Collaborate
- Keep in mind that the protocol is about the conversations and doing what is best for students
- Ask for help

Additional Support/Resources

Louisiana Believes

- Accelerate https://www.louisianabelieves.com/academics/accelerate
- Accelerate Math https://www.louisianabelieves.com/docs/default-source/accelerate/accelerate-math.pdf?sfvrsn=433c6618_14
- K-12 Math Planning Resources https://www.louisianabelieves.com/resources/library/k-12-math-year-long-planning

Questions? Comments?
Want to know more?

Contact
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