

MQI COACHING

Introduction to MQI E-Coaching: Unleash the Potential of Math Coaching

As you come in, say hi in the chat box and share:

- What are you seeking in professional learnings for teachers in your school/district?
- What criteria/focus are most important in supporting your teachers' development and their current needs?

What research says about: professional learning that positively impacts teaching and learning

PL Features and Formats (HOW)

- Encourage peer collaboration for improvement
- Rely on coaching to get the work done
- Add follow-up meetings to address teacher concerns

Content of PL (What)

- Target subject-specific instructional practices
- Prioritize concrete instructional materials over principles
- Deliver more PL focused on relationships with students

Hill, Heather C., Papay, John P., (2022) Building Better PL: How to Strengthen Teacher Learning, <https://annenbergbrown.edu/sites/default/files/rppl-building-better-pl.pdf> Research Partnership for Professional Learning (RRPL).

- Pamela: School Fundraiser
- Fourth Grade Mathematics
 - There are 54 families that are donating money to the school fundraiser. Each family donated \$12. How much money was donated to the school?
- **Watch the clip**
- **What stands out to you?**



**Pamela:
School Fundraiser**



**Pamela:
School Fundraiser**

- What stood out to you in this clip?
- Did people notice the same things? Focus on different things?

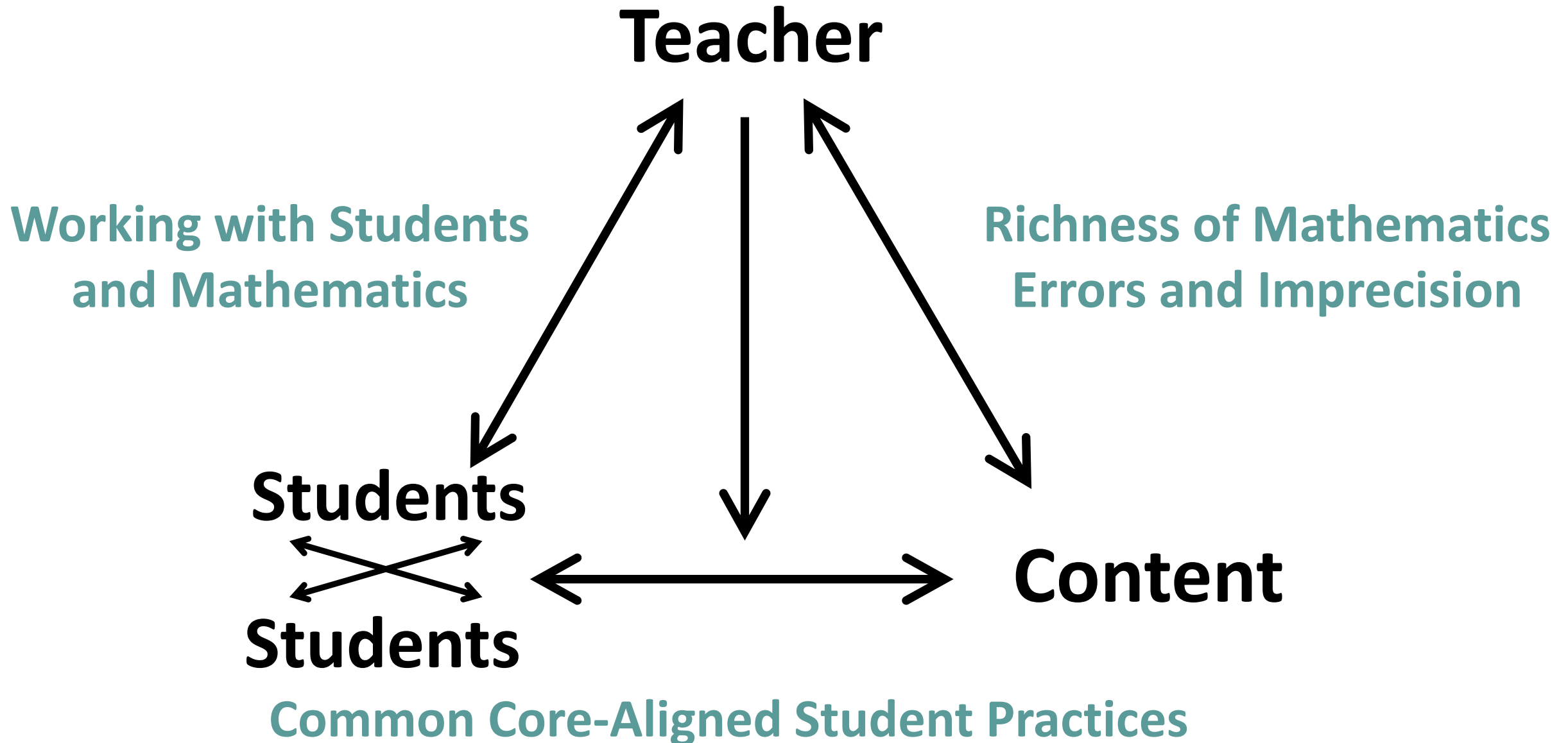
Talking about a mathematics lesson can be complicated

For instance, some responses to this instruction have included:

- “She used student work to make her mathematical point”
- “The teacher did all the talking.”
- “She connected the students’ representations back to the problem and talked about the meaning.”
- “It was unclear what point she was trying to make- was the point to solve the problem efficiently or to model it correctly?”

Can we develop a common language and common lens for discussing the mathematics in the lesson?

The Mathematical Quality of Instruction (MQI)



Richness of the Mathematics

- Captures the depth of the mathematics offered to students
 - Linking Between Representations
 - Explanations
 - Mathematical Sense-Making
 - Multiple Procedures or Solution Methods
 - Patterns and Generalizations
 - Mathematical Language

Common Core-Aligned Student Practices

- Captures the ways in which students engage with mathematical content
 - Students Provide Explanations
 - Student Mathematical Questioning and Reasoning
 - Students Communicate about the Mathematics of the Segment
 - Task Cognitive Demand
 - Students work with Contextualized Problems

Describe this clip using language from two different MQI codes:

1. Mathematical Sense-Making (Richness of the Mathematics)
2. Task Cognitive Demand (Common Core Aligned Student Practices)

General Principles for Discussing Instruction using the MQI:

- Put on the MQI Glasses
- Respect for teachers in these videos
- Respect for teachers generally
 - Assume the best –
 - Do not assume a teacher error unless you are certain it has been made
 - Recognize that even the best teachers make occasional missteps or have less than perfect instruction
 - Recognize that each teacher has strengths and weaknesses
- Criterion \neq perfect instruction
 - Impossible to enact
 - Instead, faithfully capture what happened in the lesson



**Pamela:
School Fundraiser**

Describe this clip using language from two different MQI codes:

1. Mathematical Sense-Making (Richness of the Mathematics)
2. Task Cognitive Demand (Common Core Aligned Student Practices)

- What might this clip have looked like if it had been stronger on Task Cognitive Demand of the Segment? **What would the students be saying or doing?**
- **What would the teacher do to achieve that?** What could Pamela do to elevate the student communication in this clip?

Discussion Note: Don't reinvent the lesson or describe an entirely different way to teach the topic, rather, try to describe incremental improvement on this code for this clip, using the language of the MQI as a guide

We just:

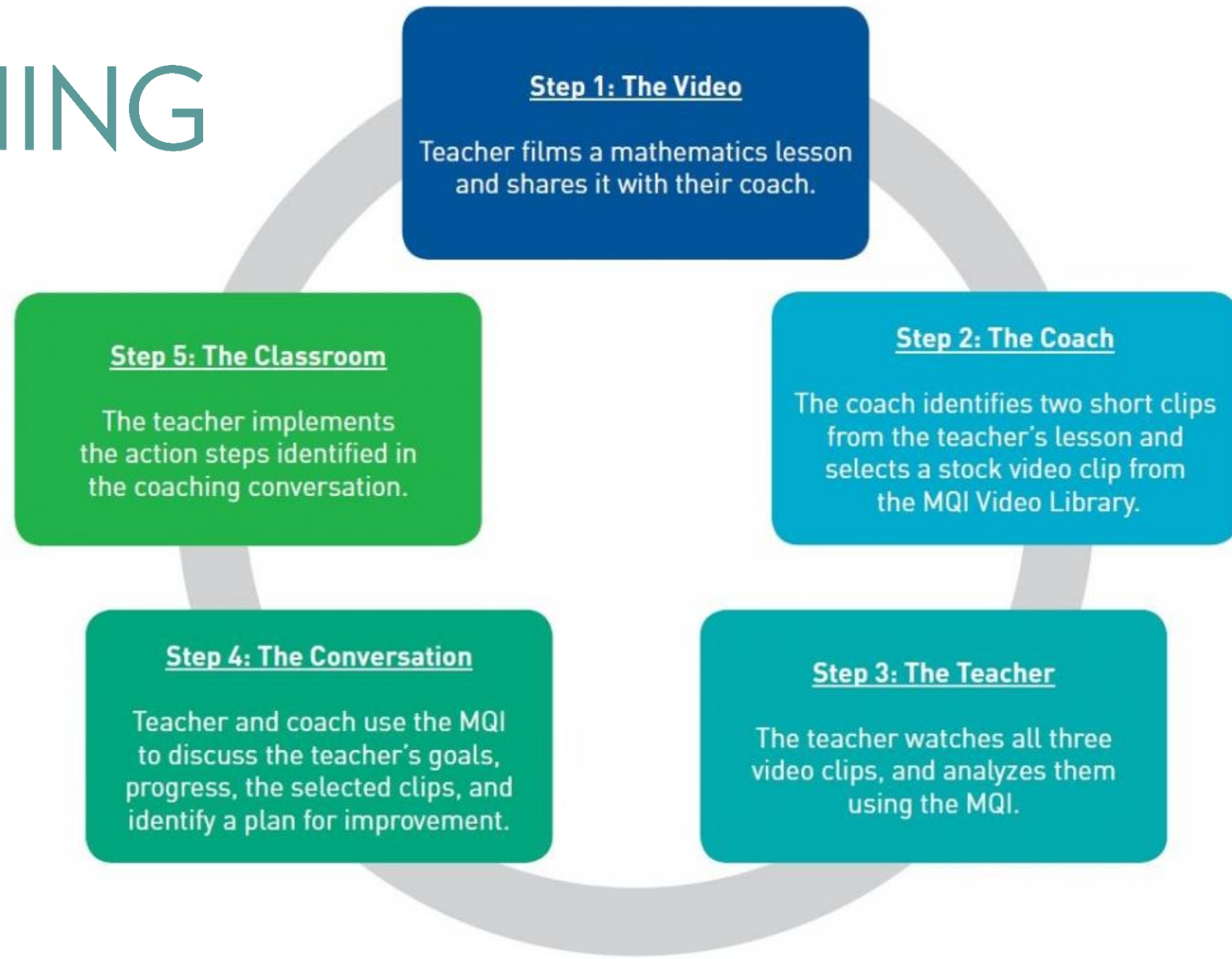
- Watched and discussed a clip
- Described it using the MQI and evidence from the video and transcript
- Discussed how it could have been stronger on one particular MQI code
- Discussed what a teacher might do to achieve that stronger instruction

This is the same process that teachers and coaches do together during their coaching cycles.

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Coaching Cycle

As part of a year-long experience, teachers learn about the MQI rubric, use it to critically analyze video, and then work with an MQI-expert coach to improve their own instruction.



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Theory of Action

- The MQI provides teachers with an evidence-based framework for planning, enacting, and reflecting on their mathematics instruction.
- Watching and evaluating stock video clips from our library allows teachers to see a wide range of practice.
- Stock video also serves as a norming process for when they look at videotape of their own instruction, thus developing a shared language and lens.
- Teachers will watch video of their instruction, and they will use the lens of the MQI to evaluate and reflect on their own practice.
- Teachers and coaches will collaborate to produce specific and actionable steps for improvement.
- Goals and action steps will be guided by the MQI, but chosen by the teacher.

Registrant Questions

- How do we change the mindset of mathematics teachers to embrace new mathematical strategies

Registrant Questions

- How do your coaches garner buy in from the teachers and monitor their implementation of the practices?

Takeaways

- Think back to the initial share out:
 - What are you seeking in professional learnings for teachers in your school/district?
 - What criteria/focus are most important in supporting your teachers' development and their current needs?

What is one way this model addresses your criteria and focus?

What is one thing you can take back to incorporate into your plans for teacher professional learning?

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Thank you! Please reach out if you have any questions.
Learn more about our research and resources at:
www.mqicoaching.org

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