

Routines for Reasoning Institute

Redesigning Classroom Interactions to Foster Math Reasoning



About the Routines for Reasoning Institute

Fostering Math Practices is collaborating with Lesley University's Center for Mathematics Achievement this summer to bring to you the first, annual, Routines for Reasoning Institute. Routines for reasoning are powerful, research-based routines that foster mathematical thinkers and problem-solvers. These routines are designed to be repeatable and predictable so students can gain confidence in communicating their math thinking and develop a deep understanding of what to look for mathematically when given a problem or task.

In this intimate and informative three-day Institute, participants will:

- Learn how to foster mathematical reasoning in ALL students.
- Engage in specific instructional routines.
- Rehearse routines that elicit math understanding.
- **Deepen** content knowledge.

With your team, you will:

- Establish school-wide implementation plans.
- **Connect** instructional routines to district curruiclum.
- Plan collaborative lessons.
- Leverage routines in teaching and coaching.

Pricing for the Institute:

| | Before June 1, 2020 | | After June 1, 2020 | |
|--------------------|---------------------|-------------|--------------------|-------------|
| | Institute Only | Institute & | Institute Only | Institute & |
| | | Follow-Up | | Follow-Up |
| Individual (\$ per | \$875 | \$950 | \$900 | \$975 |
| person) | | | | |
| Group (\$ per | \$825 | \$900 | \$850 | \$925 |
| person) | | | | |

^{*}available for one graduate-level credit for an additional \$500.



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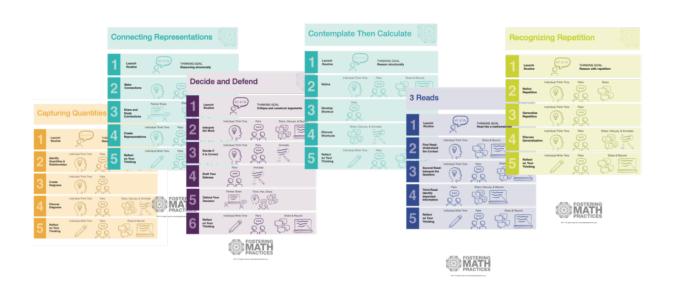
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Who Should Attend

This Institute is intended for teachers of grades 4 - 10, coaches, administrators, and other educators who are interested in learning about how to support students in thinking mathematically. Teachers of grades K-3 are welcome and encouraged to learn the routines, but must know that the mathematical content and video we use will pertain most closely to grades 4 - 10. We encourage participants to come with their teams, as this will best lead to sustained implementation of the routines for reasoning.

The Institute will focus on how to transform teaching and learning of mathematics through the use of routines for reasoning, which focus on how students think like mathematicians. An overview of the routines will be provided and then participants will take a deep dive into two routines: **Capturing Quantities** and **Connecting Representations**. Once both routines are explored, participants will choose one to focus on for the remainder of the Institute. We have found that when given time to deeply explore one routine, teachers are more likely to be successful in the implementation stage.





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Recognition

Look at what past participants have to say about attending our other Institutes:

- "It was authentic and real. The instructors are so experienced and skilled, and yet so generous and easy to relate to. They walk the walk, not just talk the talk, of being an "expert learner." Decoding the videos and transcripts provided a wealth of insight! Watching math students in action is priceless."
- "I loved that the institute was laid back, yet jam packed with information. The collaborative nature and breakout sessions were great."
- "The facilitators were obviously experts who are very passionate about what they do and extremely willing to share their expertise so I and all the participants can improve our craft."
- "I found the awareness that was created by looking at my own practices and how to work with others the most valuable part of the professional development! The networking and listening to others' struggles to learn from them was pivotal."





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Benefits

Let your school district know that attending *Lesley University's Routines for Reasoning:* Redesigning Classroom Interactions to Foster Math Reasoning Institute will enable you to bring expertise and knowledge back to your school or district that may not otherwise be as accessible, nor as intensive.

| Goals of Schools/Districts | Supported by Routines for Reasoning Institute | |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Improve curriculum, assessment, and instruction in mathematics across grades PK-8 | Deepen your understanding of guiding principles of teaching mathematics for reasoning to improve the quality of teaching and learning of mathematics. | |
| Foster an environment of collaboration, reflection, grit, and professional growth | Learn specific instructional routines that are predictable to increase your confidence in teaching and your students' confidence in math learning. | |
| Build teacher capacity through implementation of effective instructional math practices | Explore how teachers, coaches, and/or administrators can enhance mathematics teaching and increase student learning through teaching specific instructional routines. | |
| Provide job-embedded professional development focused on increasing knowledge and skill of teachers | Use what you learn at the institute to create job- embedded professional development opportunities within your district. | |
| Equip teachers, coaches, administrators, and teacher leaders with effective, high-quality professional development | Engage in robust conversations and simulations with other teachers, teacher leaders, coaches, and administrators from differing districts to hone your craft. | |



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Online Graduate Credit or Follow-Up Options

The graduate credit or follow-up options are excellent add-ons to the Routines for Reasoning Institute experience. After completing three-days of workshops, networking, and learning, you may want to continue your learning once you enter back into the school year, especially to ensure implementation. Read the descriptions below to see if either or both options fit your needs. You may also request the syllabus for the graduate credit for more details.

Online Graduate Credit – What to Expect:

- Extra readings beyond the text Routines for Reasoning
- Access to an online support network of other teachers implementing the same routines
- Opportunities to try out the routines learned from the Institute with ongoing feedback from one of the instructors
- Documentation of your own implementation through video and analysis
- Watch and learn from other educators implementing the routines
- Time to reflect and improve your practice

Follow-Up Webinars – What to Expect:

Pre-Recorded Webinar:

The prerecorded webinar will be released to registered participants July 31, 2020. It will contain 1 hour of extra material, led by Grace Kelemanik and Amy Lucenta, authors of *Routines for Reasoning*, to help participants deepen their knowledge of the routines, mathematical practices/processes, and inform their implementation. The webinar will be taped after the Institute so the information is directly related to the participants' needs based on the three days together.

Live Webinar:

The live webinar will occur on October 14, 2020 from 8:00-9:00 pm ET and will be led by Grace Kelemanik and Amy Lucenta. It will contain both time for participants to engage in a live Q+A and further professional development to support implementation of the routines. If you register for this option, but cannot attend, you will receive a recording of the live webinar.



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Expenses Estimate

Use this template below to communicate clearly and precisely the total expenses to the district and all that it includes. Don't forget that if you come with a colleague, there are opportunities to save on lodging and travel.

| Expense | Description | Cost |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Institute Course Registration | noints and attendance for three-days to the | |
| Follow Up Webinar Option | Follow-Up Sessions: one (1) recorded webinar and one (1) live-webinar session. | \$75 |
| Optional Graduate Credit | Graduate credit fee (\$500 tuition). | |
| Lodging | Cambridge has plenty of hotels, Airbnbs, and other opportunities for lodging. Plan ahead. | \$ |
| Transportation | Estimate using a travel service. Be sure to include transportation to and from the airport/train station to venue. If driving, remember to include estimated mileage reimbursement and cost of parking. | \$ |
| Food Per Diem | A light breakfast and afternoon coffee/tea/snacks, as well as lunch (sponsored by Curriculum Associates) are included with Institute registration fee. | \$ |
| | \$ | |



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Justification Letter

Dear Educator,

We have developed an outline of a potential letter you could use in addition to the justification toolkit provided to justify your attendance at the Routines for Reasoning Institute. Feel free to adjust it for your needs.

Dear < Colleague>,

<Your Name>

I am excited to present to you an opportunity for teachers, teacher leaders, coaches, and their partnering administrators and support team in mathematics to receive professional development in their craft. Teachers, administrators, coaches, specialists, curriculum coordinators, and educators will experience a three-day intensive Institute focused on enhancing their mathematics instruction with experts in the field. *The Routines for Reasoning: Redesigning Classroom Interactions to Foster Math Reasoning* is scheduled for June 30 – July 2, 2020, where I will learn best practices central to effective math instruction and how to utilize those skills to improve student learning.

| The cost of attendance is broken down below: |
|--------------------------------------------------------------------------------------------------|
| Institute Cost |
| Registration (if receiving one graduate credit or follow up sessions) |
| Lodging |
| Transportation |
| Food per diem |
| Total estimated conference cost of |
| |
| Not only will my attending this Institute complement our district's objectives, but it will also |
| allow me to help our district develop specific lessons that focus on enhancing students' |
| reasoning and problem-solving. I will come back equipped with new knowledge and skills that |
| can be shared to help build capacity among our teachers. |
| |
| Thank you in advance for your consideration. |
| |
| Sincerely, |