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INTEREST IN
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Please enjoy this complimentary excerpt from The Imperfect and Unfinished Math Teacher [Grades K-12].

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INTERLUDE 1: MORE DETAILS ABOUT THE JOURNEY AHEAD

At the end of each chapter, there will be an “interlude”—a purposeful pause on our journey so we can deliberately reflect, calibrate, and collaborate on our learning together. Future interludes will contain specific actions and activities that you and your colleagues can take to build your culture of professionalism and develop the skills you will need to expand your teaching expertise.

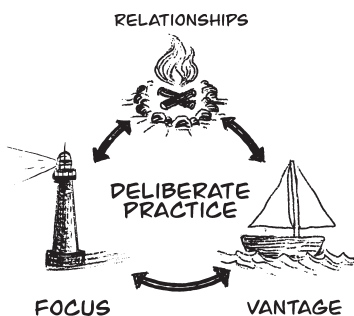
At this juncture, I anticipate you might have some questions because the Beacons ask us to test some deeply held, long-standing cultural beliefs about what we need to improve our craft of teaching mathematics. I know our professional landscapes vary quite a bit. The day-to-day life of a third-grade teacher, an Algebra 2 teacher, and a special education teacher are very different. Because I want our journey to be as *accessible* and as *inclusive* as possible for any K-12 teacher of mathematics regardless of school setting, teaching experience, and current staff culture, Interlude 1 contains more details about this book and addresses some questions I hear from teachers as they start this journey.

Mission and Vision

The mission of *The Imperfect and Unfinished Math Teacher* is to change our cultural relationship with mathematics by creating a culture of professionalism where math teachers are agents in each other’s professional growth and by collaboratively furthering each other’s teaching expertise.

As more teachers of mathematics continue to join us on this journey, we will accomplish the threefold vision for this book:

1. We will establish a culture of professional learning in which all math teachers—regardless of their experience, background, or professional context—*embody a nourished sense of individual professional efficacy* as we pursue a flourishing practice of achieving more productive and equitable outcomes in our classrooms.
2. We will identify as part of a larger professional grassroots movement to *revitalize our work of improving our collective craft of teaching mathematics* by challenging the status quo of our current structure of professional development and learn how to become more active partners in each other’s professional growth.
3. By improving the effectiveness of math teaching and the quality of student learning experiences in the classroom, *we will change our cultural “math story”* from one where many citizens identify as “not a math person” to one where all citizens identify as mathematically capable, mathematically confident, and, perhaps most important, mathematically curious.



Vantage

A position that offers a strategic viewpoint on something.

Outline of This Book

Part 1 of this book is an invitation to a journey to create a new culture of professionalism. In Chapter 2, we will define flourishing—the mindset necessary for our journey. In Chapter 3, we will learn about the Core Elements of Deliberate Practice—focus, vantage, and relationships. These Elements will structure our learning throughout this book as we take actions to expand our teaching potential and sustain our sense of professional vitality individually and collectively.

In Part 2, you will use the Core Elements of Deliberate Practice to develop your new culture of professionalism. These chapters contain stories that will help us get to know each other and are sequenced in a way to scaffold your progress toward fostering this culture with each other. Building culture and trusting relationships can sometimes happen quite quickly, but it should never be rushed. While there is no pacing plan for this journey, teachers generally complete the activities in Part 2 in about 6-8 weeks.

In Part 3, with our new culture of professionalism in place, we will test some of our beliefs about our professional identity, the curriculum we use, and how we assess our students. Using the Eight Mathematics Teaching Practices outlined by NCTM (Figure 1.1) in *Principles to Action* as a lens, we will question some of the actions by examining them from the students' perspective and discuss how they affect the math stories they are authoring. As we continue to strengthen our culture of professionalism, we will use the Core Elements of Deliberate Practice to reflect, calibrate, and collaborate in ways that will further our instructional expertise in the classroom.

Last, this book is a guide for using Core Elements of Deliberate Practice—focus, vantage, and relationships—to improve *any* aspect of your instructional craft as a math teacher. This makes *The Imperfect and Unfinished Math Teacher*

1.1 NCTM's Eight Mathematics Teaching Practices

1. Establish mathematics goals to focus learning.
2. Implement tasks that promote reasoning and problem solving.
3. Use and connect mathematical representations.
4. Facilitate meaningful mathematical discourse.
5. Pose purposeful questions.
6. Build procedural fluency from conceptual understanding.
7. Support productive struggle in learning mathematics.
8. Elicit and use evidence of student thinking.

—NCTM, *Principles to Action: Ensuring Mathematical Success for All* (2014, p. 10)

a useful companion to many of the other books on effective math teaching. Perhaps this book even encourages you to see the books in your current professional library with new eyes. What new learning could be gleaned from them now that you're equipped with these new tools?

Frequently Asked Questions

Q: When will I find time to make this journey?

A: The speed at which you take this journey is up to you and your colleagues. If you can carve out a few hours a month, you can reap the nourishing benefits of this work. I've discovered that once teachers start this journey, they find the work so transformative that they're compelled to keep going and look for strategic ways to embed this work into their busy schedules because they want to keep feeling the nourishing benefits of their improved expertise.

Q: Can I take this journey with teachers who don't teach my grade level or teach different high school content?

A: Yes! In fact, it's encouraged. There is substantial learning potential for us when we're in math classrooms that are less like our own.

Q: How will I schedule coverage to observe other classrooms?

A: Finding pupil-free time in your day to observe the teaching and learning in a colleague's classroom can be a challenge. If you work on a period schedule (like most middle and high school teachers), you hopefully have a "conference period" in your schedule that allows you the flexibility to step into each other's classrooms. If you don't work on a period schedule (like most elementary school teachers) or if you all have the same conference period as a department, you will need to find coverage for your own students while you observe.

Here are a few scheduling tricks I've seen teachers and site leaders use to find coverage:

- Elementary teachers strategically coordinate their math teaching time in their day with their colleagues a few times a month. They find coverage from a coach or principal during independent reading time (or something similar that can be supervised without any preparation) for their own students. When scheduled regularly at the same time every week, this routine usually works quite well.
- If you have the same conference period as your colleagues, you will need to think of moments in your teaching where coverage could happen. What might be some lessons that a coach, principal, or substitute could cover for you that wouldn't negatively affect the flow of learning in your own classroom? Some school sites dedicate some of the PD budget to pay for a substitute teacher to come in once or more a month. The substitute rotates through the day allowing each teacher an opportunity to observe a full lesson. Perhaps this is an avenue to explore with your leadership team.

Q: What if I'm the only one reading this on my staff?

A: This book works best if you are able to build relationships with your colleagues on site. Instead of reading it alone, consider inviting a coworker to join you on this journey. If you can't, then consider asking a colleague you know from a different school. Online meeting platforms can allow you to engage in the reflective parts of this book remotely. If you can't find someone and you want to read this book with others, we got you! Reach out to me by Twitter or email, and we'll connect you with other teachers doing this work.

If you're the only person on your site who is reading this book, you will need to talk with your colleagues about being in their classrooms and observing the teaching and learning of mathematics. If you're feeling hesitant about having the conversation (or you think they may be hesitant), consider the following as a way to start the dialogue:

I'm reading this book to help me grow as a teacher. As a part of my learning, I'm encouraged to observe students in other math classrooms to help me reflect and think about my own teaching practice with my own students. It would really help me grow as a teacher if I could observe your classroom a few times a month. How do you feel about that? What might make the process comfortable for you? What questions might you have?

And who knows? Maybe they'll want to read this book after they see how much you're growing. Win-win!

Q: What makes this a book for teachers of mathematics, specifically?

A: The research that forms the backbone of this book can be found in NCTM's (2014) *Principles to Action: Ensuring Mathematical Success for All* and their *Catalyzing Change Series*, a collection of three books—one each for elementary, middle, and high school educators—intended to initiate critical conversations on policies, practices, and issues that affect equity in the math classroom.

My lived professional experience for my entire career has been in *math* classrooms—12 years as a high school math teacher and another decade (and counting) as someone who facilitates professional learning for K-12 teachers of mathematics. I simply can't speak with much authority or create authentic stories for teachers of other subjects.

That said, every teacher, regardless of what they teach, can further their teaching expertise using the Core Elements of Deliberate Practice. Perhaps, this book inspires you to write *The Imperfect and Unfinished _____ Teacher* for teachers of other subjects. (That'd be awesome, huh? I'll even help you write it.) And as we will see in Chapter 3, the skills I'm offering you here will improve your performance at almost *anything*. Consider it an unexpected added value to this book!