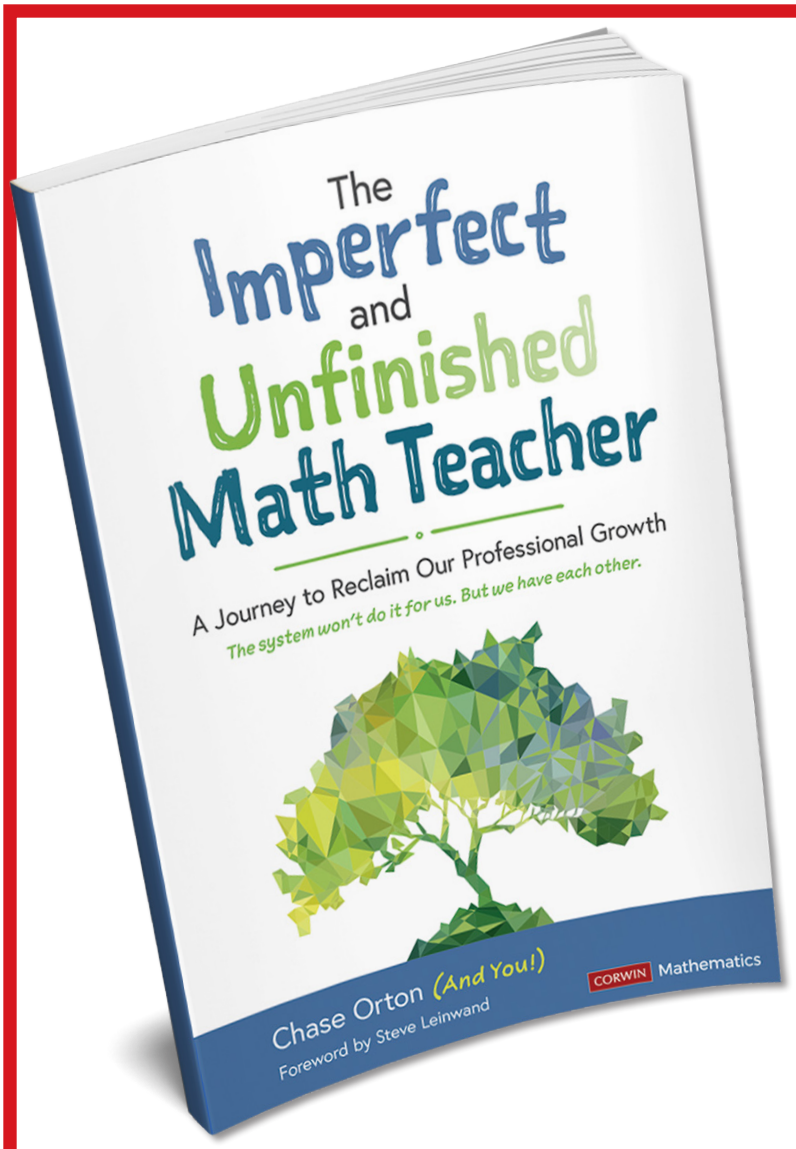

Thank you

FOR YOUR INTEREST IN CORWIN

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

LEARN MORE about this title!

CORWIN

INTRODUCTION: GRACE AND THE ART OF NOT KNOWING

The great gate is wide open–and nobody is obstructing it.

–Alan Watts, *Waiting for Magic* (2020, 13:16)

A Book of Stories

This is a book of stories about being an imperfect and unfinished teacher of mathematics. Some of these stories are mine. Most of these stories are from the hundreds of teachers who've graciously let me be in their math classrooms over the years. All of these stories are true.

You are an author of this book—just the same as me—and I'm inviting you to share your story with us and the colleagues you work with. Even though you, like me, are imperfect and unfinished, we have much to learn from each other. And it's time we start thinking differently about the ways we relate to each other and how we talk about the work we do.

We will never be perfect teachers, not because we are incapable or incompetent. We are imperfect because there is simply so much we don't know—we can't know—when it comes to our work and meeting the needs of our students. We are always forced to do our best with the information and tools we have at the time. And we must perform our craft while navigating a professional schedule that never gives us the time we need to pause and reflect on our

learning so we can calibrate and collaborate together on ways we can improve our efficacy.

The job of a teacher is to fill the gap between what students need and what the school system offers them. This has always been true about our role in society, but if you taught during the pandemic and navigated the world of remote learning, you know just how wide that gap can be. Never before in our lives had our students needed so much, and never before had the system of education been so overwhelmed. Routines and structures fell away. Long-standing traditions and cultural expressions were interrupted. Children vanished into the digital ether. Fewer faces. Fewer voices. Fewer laughs and smiles and smelly farts. Our entire mental model of not just what it means to be a teacher but what it means to be a human being was disrupted.

And what did teachers do in the face of these insurmountable obstacles? What we always do—we remained *unfinished* and filled that gap. We stretched our expertise, our love, our souls in ways we never thought possible. All of us, in our own unique ways, exercised our creative genius and expanded our potential and accomplished things we not only hadn't done before—we accomplished things we couldn't even imagine before.

Along the way, we also had a chance to reclaim an essential quality about our humanity, as we've been reminded how important it is to give more grace to our students, our colleagues, and most important, to ourselves. Grace is an essential tool in the Art of Not Knowing. And it will be a key component in our relationships together and how we position each other as collaborators in each other's professional growth.

Stories Help Us Test Our Beliefs and Question Our Actions

As we look at the years ahead, we are aware that much is uncertain, and we must continue to embrace a mindset of "not knowing" as we face the novel challenges to come. It's a lot of pressure being a teacher and embracing this "not knowing" mindset. We're teachers after all! We're supposed to have the answers, right? If you believe that to be true, I invite you to test that belief, because there is tremendous power and freedom in admitting to ourselves, and to each other, that much of what we think we know about effective math teaching may not be true. A "not knowing" mindset is a productive

belief for furthering our teaching craft because we can begin to test our beliefs and question our actions. And when we practice the Art of Not Knowing in our classrooms, we position ourselves to share authority with our students because they see us as learners with them—instead of seeing us as someone who is holding all the answers.

I will continue to ask us to test some of our beliefs and question our actions as we strengthen our relationships with each other and establish a new culture of professionalism. But please know this: I'm no answer key. I'm a learner—a co-thinker—alongside you as we grow our craft.

Stories Share Authority and Position Us All as Capable Learners

I'm uncomfortable with the title of "author" because it implies that my lived experiences have authority over yours—and they don't. We are colleagues, you and I, and stories are my way of sharing authority with you. They are invitations for us to reflect together and share with each other the beliefs that we have about our professional identity and our teaching practice. When we listen *openly* and *intently* to the meaning others make from these stories, we begin to develop an appreciation for both what makes us unique and what connects us together.

These stories are not about being right or wrong—there are no right or wrong answers to many of the dilemmas we face in our career. These stories are opportunities to get to know ourselves and know each other a bit more deeply. With this lens in place, I offer you a story from my own career. I call it the Rudy Story.

The Rudy Story

Rudy was affable, humorous, and equipped with a charming smile. He was a young man who was outwardly curious by nature and always sought to help others. He was liked by everyone for his kind and genuine heart and his ability to lift spirits when he walked into the room. Rudy was a kid that my teaching heart couldn't help but root for.

Continued →

→ *Continued*

When I taught Rudy, he was a senior in my class, taking Algebra 2 for the second time after failing it in his junior year (with a different teacher). Rudy had not built many enduring understandings over the years. Up to that point, he had survived math class by treating mathematics like it was a series of tricks and a disconnected jumble of isolated skills that needed to be memorized. In the fall term, he crammed for tests, made use of extra help, and would retake exams—sometimes again, again, and again—until he earned a passing grade.

The spring term, however, was a different story for Rudy. As the demands of his senior project and other coursework mounted, he fell further and further behind in math class. The consequences of failing were significant. All graduates from Rudy's charter school had to be "college eligible," and in California, that meant earning a passing grade in Algebra 2 to complete his "A-G requirements." Failure meant that Rudy would not walk at graduation, his pathway to a diploma would be extended into the summer, and he risked letting down his family's hopes (and his own) that he would be the first to go to college and earn a degree.

A lot of people's dreams were riding on Rudy's shoulders.

With about three weeks left of school, Rudy started to seek out extra help most days. He practiced problems enough that he was able to get right answers on the most basic and routine problems from some of the unit tests he had failed. He completed his financial literacy project on exponential functions. But despite his efforts, the deadline for senior grades came and went, and he still hadn't shown enough understanding of some of the core content on logarithms and polynomials.

Time had run out for Rudy and me. Now what happens?

WHAT WOULD YOU DO?

FOCUS

We will come back to the Rudy Story in a few chapters. Before moving forward, take a moment and put yourself in my shoes, standing there face-to-face with Rudy. Remember, there are no right or wrong answers here.

What would you do? Would you pass him and let him graduate? Would you give him an F? Figure out another option?

More important, *why* would you do that? What issues are most important to you about this moment?

Two Opposing and Unproductive Models of Professional Development

> Professional development is underperforming. It is neither professional, nor does it develop.
>
> —Leinwand (2019)

Our journey will require us to test some of our cultural beliefs about professional development and what we need as professionals seeking to improve our teaching craft. Currently, there are two opposing—and unproductive—beliefs that dominate much of our culture of professional development as math teachers.

On the one hand, effective math teaching is viewed as an innate gift, something we're bestowed with at birth. In this model of professional development, we are given our textbooks and our technology and then left alone in our classrooms to figure it all out. The space of our professional learning becomes siloed away from our space of professional practice and a culture of isolationism forms. And in this culture, teaching becomes a very private act.

Believing in the "teaching gift" also creates a culture where our ability to teach mathematics effectively is viewed as being "fixed"—it is something that "veteran" teachers can't learn if they haven't already. I hear this sentiment a lot from administrators: *What we need to do is find new teachers—teachers who get kids these days. If we just find the right teachers, things will get better.* Rubbish. We don't have a problem with finding the right teachers—*we are the right teachers*. But we're put in a position where we're not given what a professional needs to grow their craft.

On the opposing side, there's a model of professional development that seeks to reduce effective teaching down to a recipe—a checklist of "best practices" that can be marked on an observation form. I also hear this sentiment a lot from administrators: *Research says this is what "equitable instruction" looks like in the math classroom. If we can hold our teachers accountable for these actions, then we know we are achieving equity and meeting the needs of our students*. Also rubbish. Checklists are easy tools to use in a top-down approach to education reform, but they are often not productive feedback for us as teachers. They only tell us if we're compliant—not if we're effective or how we can get better.

FURTHER LEARNING

The Teaching Gap by James Stigler and James Hiebert and *Building a Better Teacher* by Elizabeth Green explain these opposing approaches and why they are ineffective.

To be clear, both of these beliefs are as *untrue* as they are *unproductive* to our professional growth. Effective math teaching is not an innate gift. There is no "teaching gene" that enables some of us to "get kids" or "get math" better than others. Nor can effective math teaching be reduced to a recipe that anyone can follow. The art of teaching is too complex—and too personal—to be measured by a checklist on a clipboard during a 10-minute walkthrough.

Effective Math Teaching Is a Craft Worthy of Study

> Neither accountability nor autonomy is enough … because both arguments subscribe to the myth of the natural-born teacher. In both cases, the assumption is that good teachers know what to do to help their students learn. These good teachers should either be allowed to do their jobs or be held accountable for not doing them, and they will perform better. Both arguments … rest on a feeble bet: that the average teacher will figure out how to become an expert teacher—alone.
>
> —Green, *Building a Better Teacher* (2014, p. 13)

Teaching is a craft, and like any craft, it is worthy of study. In fact, study is *necessary*. I do not mean simply academic study—we have enough academic research out there already. Perhaps too much. The study I'm referring to is in the more traditional, human-to-human sense because teaching is a cultural activity—it is something we learn best through each other. I'm inviting us to learn like all other professionals engaged in performing a complex skill—by watching each other perform the skill and reflecting together on what we see.

These Colleagues Are Watching Each Other Teach for the First Time

> Claudine: *You know, Wendy, we've been teaching next to each other for three years, and this is the first time I'm going to see you teach mathematics.*

Claudine, Wendy, and I are about to walk into Claudine's second grade classroom. We spent the previous day sitting in a room together talking

about different ways to get students to share their thinking more in math class. We crafted a lesson that we think will allow all students to help elevate their voice more *because that's what these teachers value the most right now.* We're going to observe Claudine's students first, then reflect, make some changes to the lesson, and then try again later today in Wendy's class. Despite spending the previous day together, this is news to me. I figured they'd have seen each other teach mathematics at some point, right? Even accidentally? Nope.

Claudine: *Yeah, it feels kinda weird, right?*

Me: *When's the last time you saw someone teach a math lesson?*

Wendy: *A whole lesson? Jeez. I can't remember. Maybe not since I was student-teaching 15 years ago.*

Me: *Well, this is my first time teaching second graders. So there's a first time for everyone today, I guess.*

Claudine: *I wonder what we'll see.*

Wendy: *I bet we've missed out on seeing a lot.*

Experts in almost any field learn by watching their peers perform—doctors, welders, musicians, athletes, carpenters, artists, pilots, chess players, the list goes on. It is an inherent part of their culture of professionalism. We don't have that as teachers—yet. Routine, informal peer-to-peer observations of each other doing our craft is a foreign thing for many of us. But it needs to become a natural and familiar part of our culture of professionalism because becoming an expert math teacher requires us to go through our colleagues' classroom doors.

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Now, you might be asking yourself: *Did he just say we need to go into each other's classrooms?* Yes. Yes, I did.

Perhaps the strongest headwind working against our professional growth as teachers—especially as teachers of mathematics—is the fact that we work in a system that promotes isolation. The siloing effect

of school structures and our teaching schedules normalize the professional act of teaching as a private practice conducted alone behind our closed classroom doors. As a result, we often find ourselves without the necessary relationships we need to talk *authentically* about our struggles with each other, let alone open our classroom doors and risk failing in front of each other.

We will talk quite a bit about relationships in this book because we need to replace our current culture of professional isolationism with a culture of professional collaboration where we have the trust and understanding we need to be productive partners in each other's professional growth. If you're hesitant about being in a colleague's classroom—or if you're anxious about having colleagues in yours—you're not alone. At first, we might feel insecure, maybe even a twinge of shame, revealing to each other what is going on in our math classrooms. But I assure you, math class didn't work for all of my students, and it's not working for all your colleagues' students either. Each and every one of us is bothered by the same universal truth: *our teaching expertise is falling short of achieving the productive and equitable outcomes we desire for our students*.

Each and every one of us is bothered by the same universal truth: *our teaching expertise is falling short of achieving the productive and equitable outcomes we desire for our students*.

This Book in a Paragraph

I've written this book because I believe we must learn how to create a more equitable, inclusive, and cohesive culture of professionalism *for ourselves*. We have more than 40 years of evidence that suggests the system won't do it for us. *The Imperfect and Unfinished Math Teacher* is an invitation to all K–12 teachers of mathematics to join in a grassroots movement to disrupt the status quo of our current structure of professional development from the "inside-out" so that we can create the culture of professionalism we need to improve our teaching expertise. This book is a map that you and your colleagues can use to cultivate the empowering culture of professionalism you need to achieve

more productive, equitable, *and joyful* outcomes in your classrooms for both you and your students. Implementing the beliefs and actions in this book will position us to become more active partners in each other's professional growth so that we can navigate the obstacles on our professional landscape with renewed focus and a greater sense of individual and collective efficacy.