INTRODUCTION

It's not common for an author to introduce his new book with an apology, but perhaps one is in order on this occasion—for at least some readers. Given the title, *Cultures of Thinking in Action*, you may have picked up this book excited to learn how to "do" cultures of thinking. Perhaps you thought, "Finally, a practical how-to guide that spells it all out step-by-step!" Or maybe you were thinking, "Great, a resource book I can hand teachers to work through how to implement cultures of thinking." To be sure, this book is meant as a resource for all those eager to cultivate a culture of thinking in their schools and classrooms. You will also find that it offers many practical ideas, tools, and resources. However, first and foremost, it is about the "why?" of our teaching. Thus, it is a book meant to spark self-examination and collective reflection with both oneself and with colleagues. My goal is not merely to offer up a new collection of ideas, but to stir reflection that will spark transformation. Who are you as a teacher? What do you believe about teaching and learning? How do those beliefs reflect your stance toward teaching and play out in your classroom? How do these beliefs inform and propel your actions?

It is in those moments when we look critically at our practices and challenge our assumptions that we make the leap from informational learning, focused on learning about something, to transformational learning, the learning that allows us to challenge the status quo and embrace the

complexity of the enterprise of teaching and learning (Mezirow 2000). For decades, policy makers, innovators, and administrators have often located professional learning in a set of practices. These folks often assume that if one changes teaching practices, revamps the curriculum, trains teachers in new instructional methods, then schools have been transformed. However, decades of failed efforts and unsustainable reforms have shown that this isn't the case. True transformation resides not at the surface level, the "what?" of teaching or even at the implementation or the "how?" No. True transformation resides in plumbing the depths of the "why?" of our teaching. What are we teaching for? What do we believe and hold true about teaching and learning?

In his writings and popular TED Talk, "How great leaders inspire action," Simon Sinek (2009) explains the relationship between the what, the how, and the why through a diagram he calls the Golden Circle (see Figure I.1). It is common, and perhaps even intuitive, for businesses, leaders, and even teachers to start with the outside of the circle, the practical, the "what" and then perhaps spend time thinking about the "how?" After all, the "what" is so tangible. It's clear to everyone what the group does, makes, or delivers. This can be put on a spreadsheet, shelf, or test. The "what" can easily be translated into a measurable "SMARTT" (specific, measurable, achievable, relevant, targeted, and time-framed) goal or "KPI" (key performance indicator). It also is easy for leaders to manage, track, and oversee.

However, Sinek explains that truly great companies and leaders operate from the inside out. They begin with the "why?' This grounds them in a vision that directs and guides both their current and future work. It provides a sense of mission, purpose, and inspiration. As Sinek explains, Apple

Figure I.1 The Golden Circle.
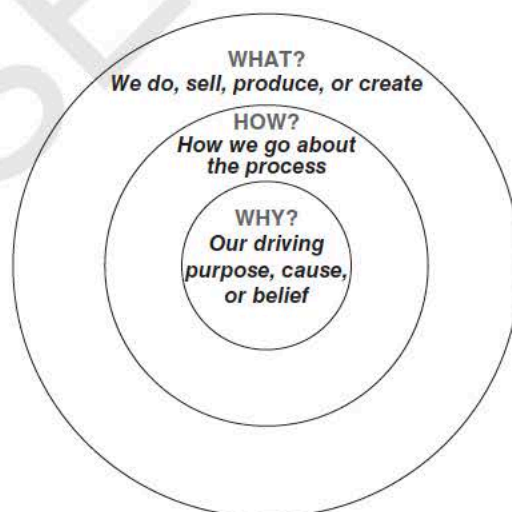
as a company doesn't just make computers (the what); they believe in challenging the status quo, in thinking differently by making beautifully designed products that are simple to use (the why) (Sinek 2009, #947). It is not the "what" that drives their success, extreme customer loyalty, and long lines outside their stores when new products are introduced, but the "why."

By focusing on the "why?" I am not just transporting a popular idea from the business world to schools. There has been a long line of research on the importance of teachers' beliefs, values, and sense of purpose (Calderhead 1996; Thompson 1992). Alan Schoenfeld, professor at UC Berkeley and past president of the American Educational Research Association, conducted a multiyear line of research focused on the beliefs of teachers as central to understanding what does and does not happen in the classroom. His research focused on developing cognitive models that explain and predict teacher behavior (Schoenfeld 2010, #938). When all is going as intended in the classroom, teachers rely on their plans or experience to deliver a lesson—but things rarely go to plan. Students ask questions, make unexpected observations, get confused, have misconceptions, and so on. In these instances, teachers must make decisions. They are no longer merely implementers. Teachers make decisions based on their beliefs and values combined with their repertoire of teaching practices and knowledge of the curriculum. Although the "why?" doesn't act in isolation, it is at the core of the decision-making process. And, of course, conflicts arise. What happens when one's beliefs don't align with one's pedagogical knowledge and skill? These can either represent moments of conflict, angst, and regression or great opportunities for growth and self-discovery.

As part of a study of effective pedagogy conducted by the South Australian government, researchers found that teachers' beliefs and the way they understood their role as teachers were a better predictor of their teaching actions and general pedagogical repertoire than were their age, gender, or years of experience (Atkin 2019, #2155). Furthermore, teachers' epistemic awareness—that is, their awareness of how they understand the enterprise of teaching and the assumptions they are making about their teaching practice and students' learning—was found to be an important factor in promoting teacher growth and change (Atkin 2019, #1866). Teachers who were more epistemically aware tended to reflect on both their practice *and their assumptions*. As a result, they tended to question and probe their beliefs and embrace the complexity of teaching: transformative learning. Such occasions provided them with the opportunity for growth and self-discovery. In contrast, teachers who were less self-aware tended to view teaching as being more about content coverage and control. Although these teachers did reflect upon their practice, they did not question their underlying assumptions about teaching and learning. Thus, they tended to view teaching practices as either working or not working and were more likely to abandon new practices that didn't fit well into their existing repertoire or weren't immediately effective for them.

Through her years of helping schools and teachers foster inquiry learning, my good friend and colleague Kath Murdoch has witnessed the importance of teacher beliefs firsthand. She points out,

"Our beliefs shape our practice. How we perceive our role as teachers has a profound influence on the language we use with students, the way we organize for learning, the design of learning tasks and what we look and listen for as we assess" (Murdoch 2022, p.47). Kath argues that while it is possible to mimic the practices of any particular approach, in her case inquiry learning, such actions tend to be just going through the motions and lack the dynamism that inspires students' learning. She says this approach "simply wallpapers over existing beliefs that are at odds with inquiry, those underlying beliefs will find all sorts of ways to manifest and even unconsciously undermine or sabotage the practice itself" (p. 47).

Others have written about the core beliefs and values people hold as representing their *stance*, thus connoting a physical as well as intellectual orienting. Cochran-Smith and Lytle use *stance* as a deliberate metaphor in order to "carry allusions to the physical placing of the body as well as to intellectual activities and perspectives over time. In this sense the metaphor is intended to capture the ways we stand, the ways we see, and the lenses we see through" (Cochran-Smith 1999, pp. 288–289). Mehta and Fine (2019) use the term to capture the way the teachers they studied for their book, *In Search of Deeper Learning*, viewed constructs key to teaching: the nature of learning, the role of failure, and the ability of their students. For instance, those effective at teaching for deeper learning viewed students as capable creators, failure as critical for learning, and the process of learning as a rich and engaging enterprise. Mehta and Fine also noted that one's stance is contextual. A teacher may engage her advanced students in deeper learning precisely because she saw them as capable creators, but then revert to traditional teaching practices with her lower track students.

My colleague Mark Church has been exploring the importance of a leader's stance in nurturing their school's progress toward a culture of thinking. In our discussions, the two of us have come to see *leadership stance* as being rooted in one's deeply held beliefs and values about how things work, what matters most, and the nature of the enterprise of leadership itself. A leader's stance will determine how they frame problems, see opportunities, and direct their energies. A leader's stance is what motivates and enlivens any set of practices, or conversely robs them of the oxygen needed to develop. The development of one's leadership stance, as with the stance of teachers, is an organic process, growing out of participation in multiple opportunities for conversation, practice, and reflection.

Recently, the term *mindset* has found a prominent place in education. The term is perhaps most familiar to educators from Carol Dweck's work on the way people view intelligence: as growing or fixed (Dweck 2006). Others have taken the term to suggest that our succeess at anything depends on how one views the enterprise: *Inquiry Mindset, Innovator's Mindset, Ultimate Maker Mindset, Creator Mindset, Super Achiever Mindset, Successful Mindset, The Richest Mindset, Alpha Mindset,*

The Inclusive Mindset, The Ballerina Mindset (yes, these are all actual books). Despite its ubiquitousness, I still find the term beneficial. It captures the idea that the way one views and thinks about things matters in terms of shaping our actions and directing our energies. And, as all these books suggest, our mindsets can be examined and thus changed. Furthermore, mindsets are directly tied to and grow out of our beliefs and values, and they position our stance. Thus, I have chosen to use the term *mindset* in this book to talk about the core ideas we as educators must seek to develop in ourselves.

Two experiences in my work with schools further drove home the importance of mindsets for me. At one school the school leaders were desperate to see some take up of these ideas (cultures of thinking and visible thinking) in the mathematics department. Every year they asked the research team to show videos and give examples of "how this can work in a mathematics classroom," and in fact we did just that for well over a decade, but it was all for naught. Our examples were rejected out of hand. They simply didn't fit into the teachers' ideas of what teaching was about or how one learned mathematics. Therefore, our examples were worthless to them. Perhaps even less than worthless as, according to them, they reflected the *wrong* way to teach math: "Where was the direct instruction? The clear explanation and concrete examples? Why wasn't the teacher in the video correcting them and telling them the answer? It's all too slow. I could get twice as much work done in a class period." Their students scored well on state tests through their current methods, so there was simply no need to change. They were focused on the "what," the content of the state exam, and saw no need to go deeper. They were unwilling to uncover, let alone challenge their underlying assumptions about teaching, learning, schooling, the nature of mathematics, or purpose of education. To them mathematics was mastering procedures for the test.

At another school, I was confronted by an experienced history teacher after a professional learning session. He was a bit frustrated and confused by our gathering and asked a simple and straightforward question, "What exactly is it you want me to do?" He was willing to give things a go, to try some new practices, but his experience of professional learning was that you were given things to implement in your classroom. He was unused to the reflection, questioning, and examination he was being asked to do and didn't see the point. How would understanding his students' thinking help him teach history? But at least there was some hope. If I could get a few practices happening in this teacher's classroom, I might be able to leverage them for an examination of his beliefs and assumptions. And in fact, when he visited another school and saw students engaging deeply in debate about history, he did begin to question some of his assumptions about how he was teaching and what students were capable of doing.

This kind of self- and collective examination, reflection, interrogation, and questioning lies at the heart of developing schools and classrooms as cultures of thinking. It cannot be achieved by

merely adding on a set of new practices. One must also reflect upon those practices and one's assumptions about teaching and learning. Therefore, although you will find many practical ideas throughout this book, my hope is that they will be neither your starting nor ending place. In writing and structuring this book, I have done my best to ensure this is unlikely to be the case. Our mindsets orient our stance toward teaching, propel our decision making, and motivate our actions. For this reason, the 10 core mindsets of the Cultures of Thinking Project form the conceptual basis of this book. These 10 mindsets are:

1. For classrooms to be cultures of thinking for students, schools must be cultures of thinking for teachers.
2. We can't directly teach dispositions; we must enculturate them.
3. To create a new story of learning, we must change the role of the student and teacher.
4. Students learn best when they feel known, valued, and respected by both the adults in the school and their peers.
5. Learning is a consequence of thinking.
6. Learning and thinking are as much a collective enterprise as they are an individual endeavor.
7. Learning occurs at the point of challenge.
8. Questions drive thinking and learning.
9. The opportunities we create for our students matter to their engagement, empowerment, and learning.
10. We make thinking and learning visible to demystify, inform, and illuminate these processes.

The strength of these 10 mindsets is that all are drawn from our two decades of effort helping schools and teachers grow into cultures of thinking. Furthermore, each has a strong research base drawing from the literature on cognitive, developmental, and social psychology, as well as from studies connecting to sociology, leadership, and the field of philosophy. Although I do not present an exhaustive review of all the literature connected to each of the 10 mindsets, I strive to provide an overview of key points and accessible ideas that can ground one's thinking about them and provide a foundation for action.

No doubt these 10 mindsets won't strike you as wholly new or original. The convergence between the ideas presented here and the work being done by others (for instance, work on "Deeper Learning" done by the Hewlett Foundation, the work on "Questioning" done by The Right Question Institute, or the many efforts around social and emotional learning) is a key strength that can create synergy, connection, and coherence while attesting to the general salience of the ideas to our

current time as educators. Another quality that makes these ideas powerful is their relevance and broad applicability across subject domains, cultural contexts, and institutional levels. They are as germane to a secondary science teacher in Santa Fe, New Mexico, as they are to a kindergarten teacher in Kobe, Japan. Because I hope that these mindsets will become more than just words on the page, that they become part of your professional stance, each chapter is structured to promote examination, reflection, and discussion as well as action. I encourage you to engage in such reflection and examination on your own as you read. In addition, if you have the opportunity to read and reflect with colleagues, this can be extremely fertile ground for promoting even deeper learning.

Reworking Simon Sinek's Golden Circle (see Figure I.2), I have conceptualized each chapter expanding from the center:

Figure I.2 The Golden Circle as an outline for this book.
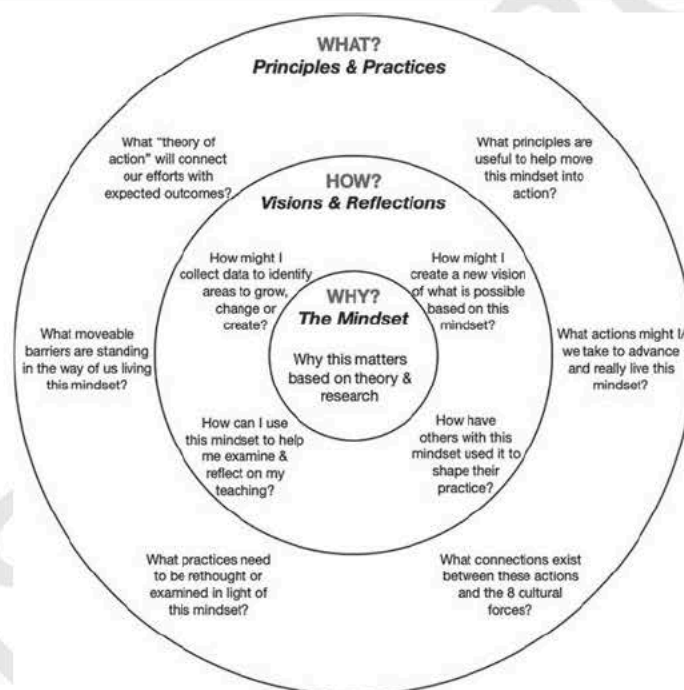
Each chapter begins with a statement of the mindset and an exploration of why it matters to us in the Worldwide Cultures of Thinking Project (Ritchhart 2022). **Why** should it constitute one of our core values as educators? What key ideas or concepts are embedded in or are an important aspect of this value? This is followed by an examination of what research has to say about how this mindset benefits teachers, students, and schools. This core provides us as educators with an anchoring place from which we can then survey the surrounding landscape of both what currently exists and what further actions we might want to try.

From this stance, I invite readers to look outward and consider **how** this mindset might orient and inform one's action. This orientation has three components: First, you are asked to *envision* this mindset as being realized and to capture images, stories, and metaphors that will ground your vision. Second, an examination of two *case studies* drawn from either my own experience or the research literature is presented to expand your view of how it might look when realized. Third, you are invited to orient the mindset with regards to your current practices by critically *reflecting* on your teaching and/or leadership.

Next, I turn your attention to an examination of the current state of things in your classroom and school. To accomplish this, you will need to collect some *street data* to inform your efforts. One might contrast street data with the satellite data often used in schools. Satellite data seeks to measure, compare, evaluate, score, and label, often in a hierarchical manner. Such data typically is removed from our lived experience and is controlled by outside entities. In contrast, street data seeks to understand the lived experience of teachers and students. It is often qualitative and experiential, though it can be quantitative. Street data resides not only in how or what one collects but in the way one draws meaning from it. As Shane Safir and Jamila Dugan explain, "Street data embodies both an ethos and a change methodology that will transform how we analyze, diagnose, and assess everything. . . . It offers us a new way to think about, gather, and make meaning of data" (Safir and Dugan 2021, p. 2). As educators, we make use of street data to make sure that any actions we take will fit our context and help us avoid mindless implementation or the "wallpapering over" that Kath Murdoch warns us about.

The final section of each chapter focuses on *what* we as educators can do in our classrooms to advance the mindset. Even though this section is focused on "the what" and aims to be practical, it will be important that one's actions not just be related to the mindset being examined but grounded in key *principles*. Identifying underlying principles helps one understand why an action may be useful as well as helps to identify other possible actions. With these principles identified, you are then ready to explore *actions* you might take. I connect these actions to the 8 cultural forces (see Figure I.3) so that readers can better understand how these actions work as culture builders. Before rushing to put these actions in place (remember this isn't your basic "how-to" book), it will be useful to identify what current actions are already happening in your school or classroom. Being thoughtful as educators requires us to attend to the coherence of our actions. Are there things one needs to stop doing? Are there practices that need to be abandoned, rethought, cultivated, or built upon? What barriers exist to moving forward on the actions and how might those be cleared away?

Our collective examination of each chapter's mindset concludes by formulating a *theory of action* (City, Elmore, Fiarman, and Teitel 2009). A theory of action sets a plan in place. It identifies what one aims to do, as well as how one will know when they are successful. Consider a fire chief deciding

Figure I.3 8 cultural forces.

The 8 Forces that Shape Group Culture

Language
Directs attention and action. Our words not only convey an explicit surface meaning, but also impart a set of deeper associations and connections that shape thought and influence behavior. Our words matter. **How can we use language to notice, name, highlight, and reinforce what is truly important?**

Expectations
Influence our efforts in relation to the achievement of goals and outcomes. In this way, expectations not only set our course, but also act as an internal compass that keeps us moving toward our goal. **What are our expectations for our students?**

Time
Allocations reflect our... values. Our sequencing of events, construction of moments, and reflections on actions allow us to scaffold and draw a connecting thread through learning occasions to create unity. Time is an investment. What is worth investing time in?

Modeling
Operates on both an explicit and implicit level. Explicitly, we demonstrate techniques, processes, and strategies in a way that makes our own thinking visible for students to learn from and appropriate. Implicitly, our actions are constantly on display for our students. **What do our students see of us as thinkers and learners?**

Opportunities
Serve either to constrain or enhance the activity of both individuals and the group as a whole. In a strong culture, rich opportunities for growth, advancement, and creativity are prominent. **What kinds of opportunities are we creating for our students?**

Routines
Represent a set of shared practices that constitute a group's way of doing things. They are the classroom infrastructure, guiding much of the activity that happens there. Ultimately, routines become patterns of behavior for both individuals and the group. **What ways of thinking do we want to develop as a pattern of behavior in our classroom?**

Interactions
Form the basis for relationships. They knit together the social fabric that binds us together in community. The interactions among group members define the emotional climate, tone, or ethos. **How are we showing an interest in and respect for students' thinking?**

Environment
is the "body language" of an organization, conveying its values and key messages. The physical environment will dictate how individuals interact, their behaviors, and performance. The physical space can inhibit or inspire the work of the group and the individual. **How are we using the environment as a third teacher?**

to deploy 200 firefighters to the northern edge of a wildfire. The chief is implicitly working from a theory of action: "If we deploy 200 firefighters to spray fire retardant and dig trenches on the northern edge of the wildfire, then we will be able to contain the fire and keep it from spreading northward." Success is not determined once the firefighters have been deployed as the chief commanded, but only after the result, containment, has been achieved. If the desired outcome is not achieved, then the situation is reviewed: Why didn't that work as expected? Perhaps the winds were too strong. Perhaps the firefighters were too tired due to long hours of work. Perhaps crews had problems with equipment or supplies. A new plan of action is then determined based upon what was learned to better achieve the desired result. So too, our theory of action around each mindset establishes what we will do and specifies the outcome by which we will measure our success.

Because some readers will dip in and out of this book and not necessarily read it chapter by chapter, I have tried to make this as easy to do as possible by keeping a common format for each chapter as previously described. This means you will notice some familiar language as I introduce various sections and try to orient the reader. I have highlighted such sections in shaded boxes to alert you that this is a common introduction you may have read before but may nonetheless find helpful to read again if you have stepped away from your reading for any length of time.

I have written this book to encourage you to work from the inside out. My hope is that you will use it to examine your assumptions and beliefs about teaching and learning as a means of setting your anchor as a teacher and to lean into your values even as you may feel yourself buffeted by change. To be sure, this journey is not for the faint of heart. As Carlina Rinaldi of Reggio Schools wrote: "Sometimes we move so quickly through our lives we lose the courage of meeting ourselves. What are you doing? Where are you going? This courage to listen, this attention to what is inside ourselves is a sort of interior listening and reflection." So, while you may be initially disappointed that the long-hoped-for, how-to-do-it handbook for implementing a culture of thinking isn't what you are holding (again my apologies), I hope it represents so much more: not merely the instructions for implementation but inspiring guidance for transformation.