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“The authors offer a powerful vision of learning wedded to a clear and actionable framework. But, best of all, they bring the nuts and bolts of teaching to life with dozens of pictures of practices drawn from teachers and learners around the world.”

—David Perkins, Professor Emeritus, Harvard Graduate School of Education

“It is a rare thing to find a book so beautifully accessible to the classroom teacher while simultaneously engaging the reader in discussions of the theoretical and research basis behind the practice. I can't wait to share this powerful resource with teachers - it is a must have in the professional library of the contemporary educator.”

—Kath Murdoch, International Education Consultant, Author of The Power of Inquiry.

“In *The Power of Making Thinking Visible,* Ron Ritchart and Mark Church illuminate how teachers can deepen learning by igniting student curiosity and engagement. It is a must read for educators across every grade level and subject area. The helpful advice and research-tested practices shared in this book truly have the power to transform schools and classrooms.”

—Madeleine Hewitt, Executive Director, Near East South Asia Council of Overseas Schools

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The Power of Making Thinking Visible

PRACTICES TO ENGAGE AND EMPOWER ALL LEARNERS

Ron Ritchhart
Mark Church

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FIRST EDITION

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ACKNOWLEDGMENTS

This book is the story of our learning as researchers about the power of making thinking visible (MTV) through years of research. But it is more than that. This book also brings together the voices of hundreds of teachers from around the world who joined us in this journey. These teachers were willing to take risks and try out new routines still under development. They shared their successes and failures with us, pushing us to explore new possibilities. Through their teaching practice and their individual inquiry into their students' learning, these teachers propelled our collective learning as a community. There are too many of these to mention by name. We do want to mention a few though who have taken extra efforts to document, reflect, share, discuss, and review their practice with us. We hope that our representation in this book does them justice.

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ABOUT THE AUTHORS

Ron Ritchhart is a senior research associate and principal investigator at Harvard Project Zero, where his work focuses on the development of school and classroom culture as prime vehicles for developing students as powerful thinkers and learners. Ron's research and writings have informed the work of schools, school systems, and museums throughout the world. His research is largely classroom based and focused on learning from the best practice of teachers to understand how they create conditions for powerful learning. Ron's seminal research, presented in the book *Intellectual Character*, identified thinking routines as a core instructional practice and laid a framework for understanding group culture that is widely used by schools and organizations. His book *Making Thinking Visible,* co-written with Mark Church and Karin Morrison, has popularized the use of thinking routines to facilitate deep learning and high engagement. Ron's book, *Creating Cultures of Thinking*, takes readers inside a diverse range of learning environments to show how teachers create classrooms where thinking is valued, visible, and actively promoted as part of the day-to-day experience of all group members. Ron splits his time between Santa Fe, New Mexico, and Santa Barbara, California, when he is not working in Cambridge or with schools around the world.

Mark Church has been in education for over 25 years, first as a classroom teacher, then as a facilitator of learning for other teachers and school leaders. Mark is currently a consultant with Harvard Project Zero's Making Thinking Visible and Cultures of Thinking initiatives, drawing upon his own classroom teaching experience and from the perspectives he has gained working with educators throughout the world. He is passionate about helping educators dwell in possibilities—considering big ideas that will help them become not only students of their students, but students of themselves. Mark believes in the power of teachers who create classrooms where thinking is visible, valued, and actively promoted. Though Seattle is home for Mark, he travels the world to engage others with these ideas, which continues to enthuse him and bring him much joy. Together with Ron Ritchhart and Karin Morrison, Mark is coauthor of the book *Making Thinking Visible: How to Promote Engagement, Understanding, and Independence for All Learners* (Jossey-Bass 2011).

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INTRODUCTION

During the 1998–1999 school year, I spent a year studying a group of teachers who were very adept at getting their students to think (Ritchhart 2000). These were teachers who had been nominated by colleagues, coaches, principals, or university professors as educators who cared about thinking and making it central to their teaching and were also effective at doing so. These teachers not only got their students to think in the moment but also developed their disposition to think, cultivating their habits of mind in the long haul and forging their intellectual character. My collaboration with this extraordinary group of teachers has resonated with me for years, informing over two decades of research and writing.

Traveling back and forth to these classrooms, which served a diverse range of students in different schools and different states, I began to notice a very powerful pattern emerging: these teachers who were so skilled at getting students to think never once taught a thinking-skills lesson. Rather than instructing students on thinking, each of these teachers with vastly different backgrounds and experiences made use of structures, generally of their own making and design, to carefully prompt, scaffold, and support students' thinking. What is more, these structures were used over and over throughout the school year so that they quickly became the *routine* way of learning and thinking. These routines became part of the fabric of the classroom and helped to create a culture of thinking.

Having seen the power of thinking routines to make students' thinking visible in the moment while also developing their thinking dispositions in the long term, my colleagues David Perkins, Shari Tishman, and I chose to make thinking routines a core practice of the Visible Thinking project conducted by our research group, Project Zero (PZ) at the Harvard Graduate School of Education (www.pz.harvard.edu). Whereas the teachers I had observed had created their own routines to fit their needs, our team set out to develop a collection of thinking routines that might be useful broadly. We sought to craft routines that not only could work across different subject areas but also with different age levels. As researchers we were not tasked with designing a program or an intervention but an *approach* to developing students as thinkers and learners. Our goal was to design an approach that would cultivate dispositional development and enhance students' intellectual character. For this approach to work, we recognized that teachers must first embrace the goal of making thinking visible (MTV) as a significant aim of teaching; only then would the practices come alive in their classrooms.

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From the outset of the Visible Thinking project, we noticed that teachers gravitated to these tools because of their ease of use. Furthermore, students liked them and began to engage more actively in their learning. More important, the teachers with whom we were working began to appreciate what it meant to get students to think and to make their thinking visible. When we first asked teachers to bring evidence of students' thinking to share with colleagues, many brought student essays, worksheets, or flawless tests. They had simply assumed that thinking must be evident in students' correct answers or in their exemplary work. However, teachers quickly realized that thinking is more a process than a product. Although certainly products may contain evidence of thinking, sometimes products obscure students' thinking. Was that correct response a guess? A hunch? An error? Or was it simply a memorized answer? How had the student arrived at that destination? It is only by illuminating the often mysterious and invisible process of thinking that we can begin to answer those questions.

Of course we were pleased that teachers found thinking routines useful, appealing, and applicable. The original Visible Thinking website (www.visiblethinkingpz.org, 2005) and the follow-up book, *Making Thinking Visible* (Ritchhart et al. 2011) made thinking routines accessible to teachers all over the world. Now, almost a decade later, we feel we have much more to share. We have developed a number of new routines that we want to introduce. These in themselves warrant a companion volume to the original. However, we want to do more than merely share these new routines—as useful as we think they are. We also want to share what we have learned about the power of thinking routines to truly transform teaching and learning. We want to communicate what we have learned about how teachers can realize the power of MTV practices themselves. This theme of "power" frames this book. Because both this book and the previous one offer useful insights and valuable tools, they should be considered a companion set. However, this new volume will be particularly useful in understanding why and how MTV is an important set of educational practices and how teachers, working together or individually, can help to realize the power of these practices.

We begin by exploring six powers of MTV in Chapter 1. These "powers" emerge through our extensive research in diverse schools around the world. They represent the promise of MTV practices to reshape schooling and constitute our raison d'etre as researchers. Although teachers often share thinking routines as useful practices and helpful strategies with their colleagues, for effective schoolwide use we must have a good understanding of just where these practices can take students, teachers, and schools. For many teachers, understanding this potential is necessary before they can begin to institute the routines themselves.

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Figure 6.1 Understanding Map, courtesy of St. Phillip's Christian College.

The Understanding Map can be used by teachers and students to orient themselves as to what kind of thinking move they might act upon in any given moment. It can help students and teachers get a sense of the territory they are in – noting where they've come from and where they are going. The Understanding Map helps identify direction – charting what to move toward and what to move away from as

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the learning of a particular concept unfolds. Kendra Daly, an elementary literacy coach at the International School of Beijing, uses the Understanding Map to make interdisciplinary units more cohesive by focusing on thinking. “My teammates and I have found that identifying different types of thinking we would like to highlight in a unit is a great way to find points of integration between disciplines. Although lots of different kinds of thinking happens throughout an integrated unit, finding one or two thinking moves – and connecting these to routines – has helped my teammates and me grow more consistent in our practice. I am not constantly wracking my brain for activities, but instead, I approach my daily lesson plans by asking myself, ‘What kind of thinking am I going for?’ and ‘What routine will help us access that thinking?’”

When teachers, like Kendra, determine there are certain types of thinking moves in which they want their students to become skilled, they begin to map that thinking across the day-to-day and week-to-week terrain of their classroom experiences.

For student thinking to grow and develop, there have to be regular, ongoing opportunities for students to routinely engage in that kind of thinking. Referencing the Understanding Map, ask yourself: Is there a certain type of thinking I want my students to get a better handle on? Where do this week's tasks create opportunities for students to engage in that kind of thinking? Looking at the exam or end-of-unit project, what types of thinking will students need to be able to activate to get great results? Where in this week's regular, ongoing assignments will there be a chance to highlight that thinking, encourage it, and feature it in prominent ways?

Keep Tomorrow in Mind, and Plan for “To-Be-Continued” Moments

One of the six powers of making thinking visible is deeper learning. But it is hard to attend to depth if one is constantly in the habit of only planning through daily to-do lists. Teachers we've worked with often start with the thinking moves they wish to grow and develop more broadly, say, over the course of a unit or school year. They ask themselves, “What's the thinking move I want my students to get empowered with in this unit?” Then they ask, “So where will today be an opportunity to make that thinking move?” Also, they ask, “Where will the thinking moves that we make today lead toward the thinking moves we'll make tomorrow?” We see teachers planning for near-term experiences, with their eyes always on the far horizon of developing students' thinking dispositions as a primary goal.

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planning, ask yourself, “Just what kind of thinking will be made visible today that can be woven into future experiences, investigations, or prompts so that the thinking can continue?”

Plan for Interactions, Environment, and Time

It is easy for teachers to look at the week ahead and rattle off the activities that students will do. But planning for lessons alone will not in and of itself ensure students' cognitive engagement and deep learning. Beyond planning daily lessons, teachers that create a culture of thinking also plan the interactions they envisage having with their students and how they will encourage interactions among students. Teachers also take into consideration the physical environment, planning just where and how students will engage in valuable thinking moves. Also, they are conscious to plan time for thinking to actually happen, rather than expecting quick responses that gloss over student thinking.

The Tapestry Partnership in Glasgow, United Kingdom, works together with many Scottish local authorities to engage educators with MTV practices. Laura MacMillan, a secondary music teacher and leader of learning, reflects on how her planning has moved well beyond any single lesson as a result of her participation. “My planning now considers time for pupils to think rather than to just complete tasks. Pupils now value this time and have noticed the difference to their completed work when given structure and time to prepare.” Another Tapestry Partnership leader of learning, secondary drama teacher Claire Hamilton, states, “When planning lessons previously, I would think about the information I wanted to give students and how best to do that. Now I look for opportunities for pupils to interact with each other to discover and problem solve in order to make their own conclusions.” Considering the classroom environment itself in her planning, Marina Goodyear, a fifth-grade teacher at the American Embassy School in New

Delhi, India, shares, “I find that planning with intention about what will actually go up on the walls in the classroom environment helps me to be more aware of and responsive to my students' developing understandings so we can have further, even deeper, interactions with one another.” When planning, ask yourself: “What time do I need to invest so that student thinking is not rushed? What interactions do I imagine students having with one another that will lend itself to deeper thinking? What thinking might students generate that could be physically featured on the classroom walls to invite further opportunities as the unit continues?”

Plan Where You Will Listen

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