Introduction

Believe it or not, the seeds of this book were planted in me way back in Miss Alexander's first grade class at Lafayette Elementary School in San Francisco. The school was located in the Richmond district in the city, a community made up mostly of middle class White families, first-and second-generation Japanese and Russian immigrant families. I was one of about a dozen African American children in a student population of just over 200 students, including my brother and sister. My family alone made up a third of the Black students in the school. I always felt I didn't belong there, figuratively and literally.

In reality, I lived on the other side of town in public housing known as "the pink projects" in the predominantly Black Hunter's Point community. My mother, a single teen parent who had three children by the time she was 22 years old, knew that the only way out of the projects for us was through education. When it was time for us to go to school, she visited the neighborhood school in Hunter's Point and found run-down facilities and low expectations for the children. So, she took matters into her own hands. She used her parents' address to enroll us in Lafayette Elementary across town. My grandparents, both hardworking but illiterate, had come to California at the tail end of the Great Black Migration in 1940. The Great Migration was the movement of two million African Americans out of the rural South to urban states in the Northeast, Midwest, and West between 1919 and 1940 to escape the oppression of Jim Crow in the South and take advantage of economic opportunities up North. My grandfather worked as a longshoreman at the Port of Oakland and my grandmother worked as a maid cleaning houses for upper class White families in Pacific Heights and Nob Hill in San Francisco. They bought their home in the Richmond neighborhood 1 year before I was born. They were the first and only Black family on the block for over 20 years.

Everyday, we took the hour-long ride on public transportation to school by ourselves. Mom had to go to work. Our daily trip included getting up early to take one bus out of Hunter's Point and transferring to another in order to get to school on time, with my brother, a third grader,

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in charge of me and my sister, a kindergartener. The principal and teachers turned a blind eye to the fact that we lived outside the attendance zone for Lafayette as long as we "behaved" ourselves. (I would test that implicit agreement many times before graduating in the sixth grade.)

Back home on the playground in the projects, it slowly became clear to me that my brother, sister, and I were getting a different kind of education at Lafayette than the kids in the projects who went to the local school. I have vivid memories of cuddling up one-on-one with Miss Alexander in the reading corner as I read to her. By second grade, I had learned to read well and fell in love with books while the neighborhood kids were struggling with reading. In the fourth grade with Miss Martini, we were doing project-based learning before it was even called project-based learning. On the other hand, back in the neighborhood, my playmates were doing fill-in-the-blank worksheets. At Lafayette, we had Model United Nations in fifth and sixth grade where we learned history, geography, economics, and social studies in integrated ways.

When I was in the fifth grade, Lafayette Elementary School was integrated. It was one of the first 12 schools in San Francisco to integrate under a court-ordered desegregation decree. By this time, my family and I had moved from the projects in Hunter's Point to public housing in the Fillmore/Western Addition neighborhood in San Francisco. All of a sudden at Lafavette, there were other students of color from my neighborhood. But I noticed a big difference in the classroom. They struggled with analytical tasks and many were in remedial reading groups. The difference I came to realize was I had been taught to use my mind well, process information effectively, and do analytical reading. From the first grade, students at Lafayette Elementary were being prepared to take on increasingly more rigorous content as we moved toward sixth grade. We were taught to be independent, self-directed learners. That was not the case for the new kids that showed up. I was witnessing the achievement gap firsthand. Despite coming to a school that had high quality teachers and instruction, the gaps in their knowledge and skill by fifth grade were too great for them to be independent learners without intense focus and support.

After many decades of attention, the achievement gaps I witnessed as an elementary school student are still with us. The things I witnessed and experienced as a student of color then aren't significantly different from what many students of color experience in schools today. Despite 30 plus years of education reform, the words of education researcher, Charles Payne, are truer than ever: There's been "so much reform and so little change" (2008).

Many educators have been looking to culturally responsive teaching as a way to close our achievement gaps given the intense focus on rigor in the classroom with the arrival of the Common Core State Standards. But for some, culturally responsive teaching (CRT) is simply an engagement strategy designed to motivate racially and culturally diverse students. It seems simplistic to think that students who feel marginalized, academically abandoned, or invisible in the classroom would reengage simply because we mention tribal kings of Africa or Aztec empires of Mexico in the curriculum or use "call and response" chants to get students pumped up. For some, it is seen as a "bag of tricks" with magical properties that don't allow us to really know how it works. Because it seems so mysterious, many teachers don't bring the same rigor, consistency, and serious implementation to it as they do with other instructional practices.

More than a motivational tool, culturally responsive teaching is a serious and powerful tool for accelerating student learning. The more we learn from neuroscience, the clearer it becomes as to why and how it works. That's what this book is about: the connection between brain-based learning and rigorous culturally responsive teaching. Based on my 18 years as an educator and student of neuroscience, I believe culturally responsive teaching has the power to close achievement gaps. When practiced correctly and consistently, it can get underperforming students of color who are caught on the wrong side of the achievement gap ready for rigorous learning by building their brainpower. Dr. Edmund Gordon and his colleagues with the National Study Group for the Affirmative Development of Academic Ability housed at Teachers College at Columbia University in their 2004 task force report, "All Students Reaching the Top" highlighted what a growing body of research around closing the achievement has found: Building brain power is the missing link to closing the achievement gap for underperforming culturally and linguistically diverse students.

THE MARRIAGE OF NEUROSCIENCE AND CULTURALLY RESPONSIVE TEACHING

Every year, neuroscientists learn more and more about how the brain learns. For instance, we are learning about the importance of the brain's executive functions in directing learning, problem solving, and self-regulation. Honestly, I wish I had this information when I was in my teacher education program. Any references to the brain and learning were limited to my one semester of Ed Psych. Instead, we spent most of our time learning about the learning theories of Piaget, Skinner, and Thorndike but not their application to everyday teaching. We talked about stages of development but never actually talked in detail about the brain as a natural learning apparatus. During my time as a

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preservice teacher, we spent even less time talking about culturally responsive teaching, although we touched on educational equity and the achievement gap briefly.

Brain-based learning strategies from neuroscience and culturally responsive teaching have always been presented as two separate, unrelated branches of educational practice. Yet teacher educators Geneva Gay and Gloria Ladson-Billings each describe culturally responsive pedagogy as encompassing the social-emotional, relational, and cognitive aspects of teaching culturally and linguistically diverse students. Cognition and higher order thinking have always been at the center of culturally responsive teaching, which makes it a natural partner for neuroscience in the classroom. This book sets out to explicitly highlight the natural intersection between so-called "brain-based learning" and culturally responsive teaching. I believe one of the biggest benefits of looking at these two approaches together is that we can better recognize what impact certain culturally responsive practices have on student learning. Neuroscience also offers a way to understand and organize our culturally responsive teaching practice.

MAKING CULTURALLY RESPONSIVE TEACHING ACCESSIBLE

The question I hear from many teachers is: *How can we make culturally responsive teaching more accessible as a practice?* The first step in learning to use culturally responsive practices is understanding what those practices are and how they fit into our understanding of cognitive science.

Because there's so much confusion over what culturally responsive teaching is and how it works, I started assembling strategies from culturally responsive pedagogy, brain-based learning, and equity and braiding them together into a framework that made it easier to understand and apply in the classroom. I began testing parts of it in the programs I designed as a curriculum developer and facilitated as a professional developer. The first opportunity came as the director of The Equity Initiative at the Bay Area School Reform Collaborative (BASRC), an Annenbergfunded school reform initiative, and then as an independent reading tutor trainer with Community Solutions Network. As part of a team of talented coaches who designed an inquiry-based approach to instructional coaching, I was able to bring some of these approaches and frames to the Partnership for Learning program at the National Equity Project and apply them to instructional coaching. As the chief designer of the professional development seminar, Teaching with a Cultural Eye, I got another chance to refine the frame and share it with teachers and school leaders.

I offer it here as a way to help educators understand how to operationalize culturally responsive teaching, especially in service of our most vulnerable and underserved students.

MY INTENTION OF THIS BOOK

Language is powerful. When you are able to name a thing, it moves out of the realm of mystery into concreteness. For too long, culturally responsive teaching has been relegated to this realm of magic and mystery, knowledge that only a select few possess. When we are able to recognize and name a student's learning moves and not mistake culturally different ways of learning and making meaning for intellectual deficits, we are better able to match those moves with a powerful teaching response. My intention in this book is to expand teachers' vocabulary for talking about culturally responsive teaching, especially for underperforming culturally and linguistically diverse students. For too long, the conversation has been dominated by the idea of the "culture of poverty" as an organizing social and intellectual frame for teaching marginalized culturally and linguistically diverse students. In these pages, I offer new concepts and frames for thinking about culturally responsive teaching as an extension of brainbased learning. Turning concepts into practices takes focus, feedback, and reflection. My hope is that soon this book in your hands will be highlighted, underlined and dog-eared as you use it to build your background knowledge and culturally responsive toolkit. May it lead you into many rich conversations with your colleagues about leveraging the natural learning systems of culturally diverse students in our ongoing efforts to close the achievement gap.

WHAT THIS BOOK IS AND WHAT IT ISN'T

This book isn't a how-to guide on developing culturally responsive lesson plans in every subject area. The Ready for Rigor frame is not a prescriptive program outlining how to do culturally responsive teaching. Instead, I want to you think of culturally responsive teaching as a mind-set, a way of thinking about and organizing instruction to allow for great flexibility in teaching. The Ready for Rigor frame simply attempts to organize the principles and tools that should be staples in the toolkit of every culturally responsive teacher. It focuses on helping teachers understand the brain-based principles that govern culturally responsive teaching so that we can stimulate underperforming students' cognitive

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development and grow self-directed learners. Too few education researchers, with the exception of Edmund Gordon, Yvette Jackson, Carol Lee, Augusta Mann, A. Wade Boykins, Rosa Hernandez-Sheets, Aida Walqui, Pedro Noguera, and the late Asa Hilliard, have explicitly focused on building underserved students' cognitive resources as a strategy to closing the achievement gap. Boykin and Noguera (2011) said it best, "when such assets are not yet part of a student's repertoire, educators must directly provide for their acquisition and use . . . " (p. 114). The Ready for Rigor frame attempts to provide some insight into how we can help students acquire and use their natural, culturally-grounded cognitive resources. In addition, it illuminates the connection between culture, schooling, and the larger dynamics of race, class, and language in society that shape the educational experiences and outcomes of many students of color and English learners.

NAMING OUR STUDENTS: A NOTE ABOUT TERMINOLOGY

Traditionally, in education we talk about the achievement gap in terms of Black and White—African American students and White students. Since the influx of immigrant families over the past few decades, we have started to include Latino students in the group of students negatively impacted by the achievement gap, many of whom are English learners. In this book, I often name African American and Latino students when talking about cultural responsiveness in the classroom. Please note that I use African American and Latino students as proxies for the larger group of diverse students of color in our classrooms, especially those groups that have traditionally been unacknowledged, such as Pacific Islander and First Nation students. It is important that we also include in our definition of students of South Asian and Asian descent when talking about the achievement gap. Too often, we identify these two groups as high achievers who don't need culturally responsive teaching. In reality, we have many students from Hmong, Vietnamese, and Cambodian backgrounds who are struggling to be heard and supported in school.

You will see that I use the terms *students of color* and *culturally and linguistically diverse students* interchangeably throughout the book. I want you to keep in mind that English learners are always included when I refer to students of color, even though there are unique issues around language that all educators need to be familiar with and address specifically.

TEACHER EXAMPLES

I have tried to provide some short anecdotes of teachers' attempts to change their practice to incorporate the approaches outlined in the book in their teaching practice. They are composites of the teachers who have invited me into their classrooms in past years. I have changed their names and identifying characteristics.

WHO IS THE BOOK FOR?

I write this book for three main audiences:

Classroom teachers. Most teachers across the country have gone through workshops and seminars on culturally responsive pedagogy, equity, or brain-based learning. This book provides teachers with an understanding of how all three are related and interdependent along with practical strategies for turning new conceptual understanding into on-the-ground teaching practices. It is designed to support teachers' continued growth and development as culturally responsive educators. It's written so an individual teacher can use it to build her teaching practice or it can be used as a study guide within a professional learning community.

Instructional coaches. More and more school districts are supporting teacher development with ongoing instructional coaching. This book is also for instructional coaches who are charged with supporting teachers around culturally responsive teaching. Instructional coaches when they come with an equity lens set up "creative tension" between the teacher's vision of a culturally supportive classroom and current reality. When armed with the right tools and information, they act as "instructional sherpas," guiding a teacher on his own professional capacity building journey. Hopefully, this book will provide coaches with some new language for talking about culturally responsive teaching that focuses on cognitive development rather than on simple engagement strategies.

Instructional leaders. Principals and teacher-leaders play a critical role in creating a school culture that allows for the care and nurturing of culturally responsive learning practices and spaces, both for students and teachers. This book hopefully will provide a conceptual frame that informs and supports their instructional leadership.

OUTLINE OF THE BOOK

Ready for Rigor is an interdisciplinary approach to understanding culturally responsive teaching. It approaches culturally responsive teaching as an adaptive endeavor rather than a technical fix, which means that the quality of relationships between teacher and students are just as important as the technical strategies used to get students to perform at higher levels. The book is divided into three parts. In Part I, we focus on the first area of the Ready for Rigor frame, Awareness. In Chapter 1, we look at the promise of culturally responsive teaching in supporting our most vulnerable students. I explain the relationship between helping students of color who are dependent learners and culturally responsive teaching. We also look at the role neuroscience can play in helping us understand how to implement it more successfully. In this chapter, I introduce the Ready for Rigor framework that helps organize culturally responsive teaching and guides us through the other chapters in the book. Chapter 2 looks at the role culture plays in culturally responsive teaching and offers a unique way to think about it. Chapter 3 reviews the connection between culture, brain structures, and building brainpower. In Chapter 4, we return to looking at personal "inside-out" work culturally responsive teachers must do to prepare themselves to be effective. Part II focuses on Learning Partnerships and covers Chapters 5 through 7. Chapter 5 outlines the foundational role effective student-teacher relationships play in culturally responsive teaching. Chapter 6 explores the special stance and skills teachers need in order to leverage relationships and culture to help dependent learners cultivate the right mindset as they move toward independence. In Chapter 7, we look at the strategies that build academic mindset in culturally congruent ways. Part III focuses on Building Intellective Capacity and covers Chapters 8 through 9. Chapter 8 focuses on information processing and building students' intellective capacity through cognitive routines. Chapter 9 looks at the importance of creating a socially and intellectually safe classroom community that encourages students to take more cognitive risks. Finally, in the Epilogue, we think together about how we lead for equity outside the classroom as culturally responsive educators. Each chapter ends with these common parts:

- **Chapter Summary**—a set of big ideas from the chapter
- **Invitation to Inquiry**—a set of questions for reflection and further investigation
- **Going Deeper**—a set of resources for learning more and building background knowledge

SUGGESTIONS FOR GETTING THE MOST OUT OF THE BOOK

- **Read with intention and purpose**. Ask yourself a guiding question as you read: How do I want to grow as a culturally responsive educator? What do I want to know more about or what questions or concerns do I have?
- Read the book with a highlighter and a notebook. As you read, mine the content for the nuggets of information and insight that resonate with you. Pull out those that build on what you already know. Make explicit connections to schoolwide or professional learning community (PLC) initiatives or other approaches for improving outcomes for low performing students. Summarize in your own words so that you help your brain assimilate the new information.
- *Customize tools and strategies*. Think through how you might tailor strategies and tools to fit your grade level, school context, or your own personality and style.
- *Take bite-sized action*. Begin with one or two strategies for building relationships and one or two for building intellective capacity. If you are just beginning to explore culturally responsive teaching, don't allow yourself to get overwhelmed by believing you have to do it all. If you are a veteran of CRT, focus on one or two areas you'd like to strengthen in your practice.
- **Practice action research**. Based on your guiding question, observe your current practice or student learning behaviors to establish a baseline. Put your bite-sized actions in motion. Collect data regularly. Create space and time to analyze and interpret it against the Ready for Rigor frame. Then reflect and adjust your practices.
- *Invite others to join you on the journey*. Form an inquiry group or book circle as a way to foster collaboration and accountability around your action research.