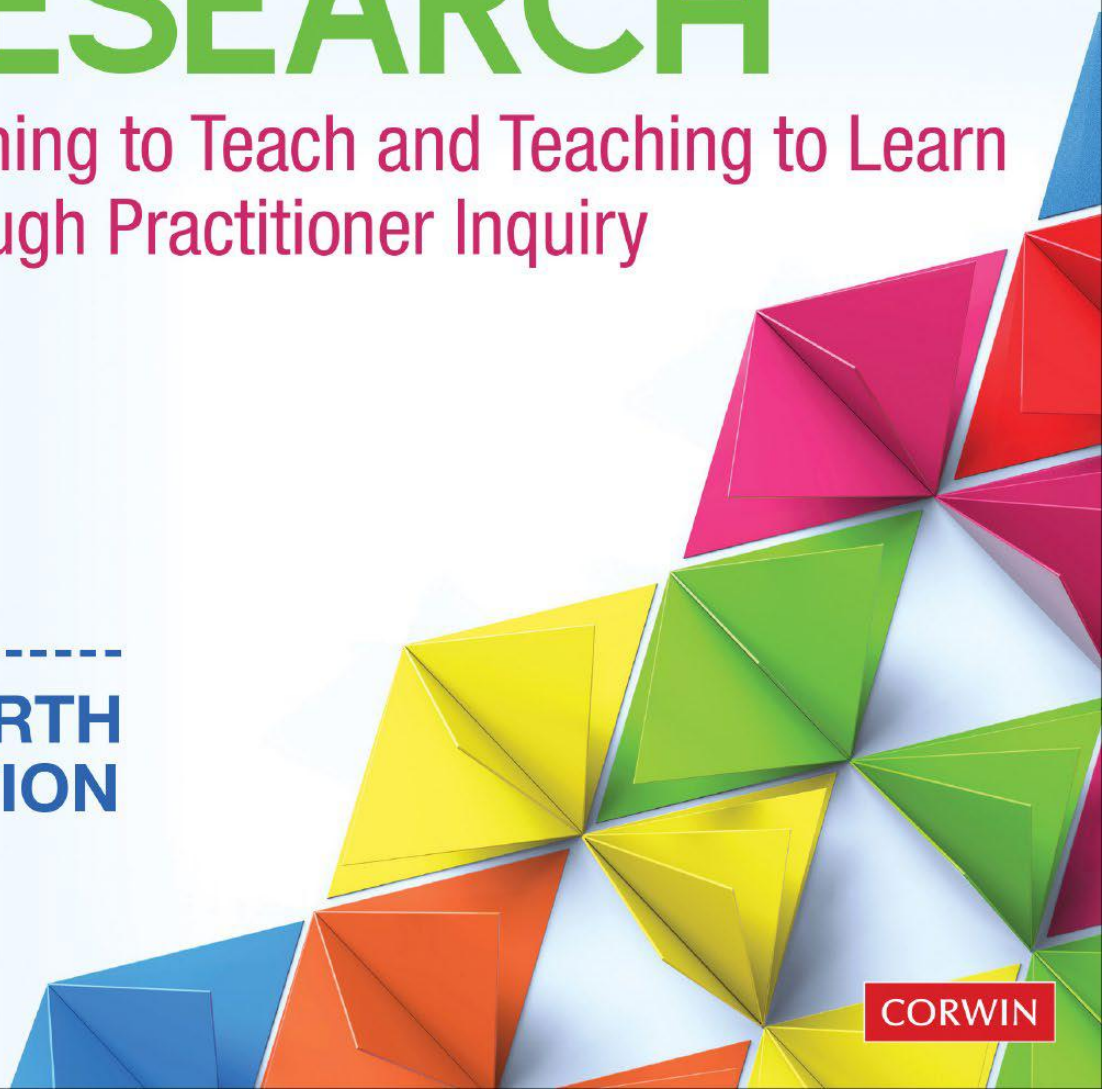
Nancy Fichtman Dana / Diane Yendol-Hoppey

The Reflective Educator's Guide to CLASSROOM RESEARCH

Learning to Teach and Teaching to Learn Through Practitioner Inquiry

FOURTH EDITION



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WHAT YOUR COLLEAGUES ARE SAYING . . .

The Fourth Edition of The Reflective Educator's Guide to Classroom Research *presents the crucial field of teacher research in an engaging and positive manner, with many explanatory examples and scenarios. True to its title, "reflective," the narrative highlights the importance of the qualitative approach to research in which the researcher looks at personal and experiential qualities that affect educational change.*

—Harriette L. Spiegel, PhD
Lecturer
The University of Tennessee at Martin

Teacher inquiry is a catalyst for change, but the process can be intimidating. This text has a different feel to it. It is reflective in nature, which adds a personal touch to the research process. While it hits on all the same points as someone engaging in action research, the change to an inquiry stance reflects what teachers currently experience in their classrooms. Multiple examples throughout provide the support necessary and the text is useful for both an action research course and a teacher wishing to make systematic, deliberate improvements to his/her teaching. I highly recommend The Reflective Educator's Guide to Classroom Research, *to anyone interested in using data to inform and strengthen their instruction and provide a more equitable classroom.*

—Terri Duncko, PhD
Adjunct Professor
Beeghly College of Education

The Reflective Educator's Guide *makes a distinct contribution to the field by providing teachers with a step-by-step approach to teacher inquiry. It is also a great resource for teachers who want to conduct their own inquiries in schools. It is comprehensive, easy to read, and rich with examples and exercises that model the process of teacher inquiry for every stage.*

—Suha Tamim
Clinical Assistant Professor
University of South Carolina

Stop and look no further: The Reflective Educator's Guide to Classroom Research, *is the definitive text on teacher inquiry. Inside these covers you will find answers to what teacher inquiry entails, why the inquiry process is vital to a healthy teaching profession, and how teachers can translate their wonderings into a systemic form of study that informs classroom change and improvement. Happy inquiring!*

—Cynthia Carver, PhD
Associate Professor & Chair of Teacher Development
Oakland University

For our children, who keep our passion for reforming teaching and teacher education alive—Greg, Kirsten, Caran, Billy, and Kevin

The Reflective Educator's Guide to Classroom Research

Fourth Edition

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Diane Yendol-Hoppey

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A SAGE Publishing Company

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2455 Teller Road
Thousand Oaks, California 91320
(800) 233-9936
www.corwin.com

SAGE Publications Ltd.
1 Oliver's Yard
55 City Road
London EC1Y 1SP
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SAGE Publications India Pvt. Ltd.
B 1/I 1 Mohan Cooperative Industrial Area
Mathura Road, New Delhi 110 044
India

SAGE Publications Asia-Pacific Pte. Ltd.
18 Cross Street #10-10/11/12
China Square Central
Singapore 048423

Program Director and Publisher: Dan Alpert
Content Development Editor: Lucas Schleicher
Senior Editorial Assistant: Mia Rodriguez
Project Editor: Amy Schroller
Copy Editor: Alison Hope
Typesetter: C&M Digitals (P) Ltd.
Proofreader: Barbara Coster
Indexer: Nancy Fulton
Cover Designer: Candice Harman
Marketing Manager: Sharon Pendergast

Printed in the United States of America

ISBN 978-1-5443-5218-3

This book is printed on acid-free paper.

19 20 21 22 23 10 9 8 7 6 5 4 3 2 1

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Visit the companion website at **https://resources.corwin.com/ReflectiveEducatorsGuide** for downloadable resources.

Preface

Since we first began working with practicing teachers and teacher candidates engaged in inquiry in the late 1980s, we have been passionate about the process and the promise it holds to raise teachers' voices in the profession we love. While much has changed on the educational landscape since we began our work with teacher inquiry, the process of inquiry itself has endured and remains a powerful vehicle for teacher professional development as well as initial teacher preparation.

Although the core of our inquiry work has remained constant, with each passing year and each teacher inquirer we work with, we learn more and more about the process and how to facilitate it. In the fourth edition of this book, we both respond to the changing times and capture what we've learned about facilitation since authoring the first three editions of this text.

First and foremost, for this fourth edition we address head-on the role inquiry plays in tackling the most pervasive problem facing all educators today—understanding and correcting the inequalities that exist in schools and society. While this has always been an underlying theme in our first three editions, this fourth edition highlights equity and social justice in a much more explicit manner, with a new section in Chapter 1 titled "Why Inquire? Inquiry as a Pathway to Equity," several new examples of teachers engaging in equity-focused inquiry woven throughout the text, and the addition of a brand new chapter that shares the complete story of a veteran teacher who came to see inquiry as a pathway to equity over time as well as the equity-focused inquiry journey of four teacher candidates and their professor undertaken during their initial teacher preparation program.

While our three previous editions spoke simultaneously to both practicing teachers and teacher candidates and the use of inquiry by professionals in various contexts throughout the professional lifetime, since publication of our third edition professional practice doctoral programs have grown at a rapid rate throughout the nation. Several of these programs center both equity and practice-based research at the core of their programs, with doctoral students completing practitioner inquiry dissertations-in-practice. For this reason, we have added a discussion of these programs as a ripe context for inquiry alongside the contexts we have included in past editions:

professional learning communities, student teaching and other clinical experiences, and professional development schools and other networks.

Because understanding the literature is an important part of professional practice doctoral programs—and because we have found in previous editions that our discussion of literature as data often got lost in the chapter on data collection—in this edition we also offer a complete chapter on the role literature plays in teacher research. This chapter walks readers step by step through completing a literature search that is appropriate for a researching professional (in contrast to the types of reviews conducted by professional researchers), and culminates with new exercises and activities that aid inquirers in connecting their work to the rich preexisting knowledge-base that exists on teaching and learning.

To parallel this new chapter titled "Learning With and From the Literature: The Importance of Reading," our chapter on collaboration that appeared in the first three editions is retitled "Learning With and From Your Colleagues: The Importance of Collaboration" for the fourth edition. This chapter was updated to include the ways Twitter can be used as a tool for collaboration, as well as an additional benefit of collaborative inquiry—teachers' development of collective efficacy.

New to the data collection chapter is discussion of a technology that has become much more prevalent in schools since the third edition: Google forms. An illustration of using Google forms for surveys is shared with foreshadowing of the ways this tool aids not only data collection, but analysis as well.

Regarding analysis, we updated the organization and content of the chapter on this topic to make quantitative data more visible, including the addition of tips on using Excel for the teacher researcher. Furthermore, the addition of two new tools to aid in the data analysis process are shared and illustrated in this chapter: data analysis memoing and creating visual displays of data.

In previous editions, we had separate chapters on writing and presenting one's research. To highlight the importance of sharing one's work with others whether in oral form, written form, or a combination of both, we join these two chapters into one for the fourth edition with the overarching chapter title, "Making Your Inquiry Public: Publishing and Presenting." To close the fourth edition, we reposition our chapter on quality from previous editions to the end of the text, situating the quality discussion in a much-expanded discussion of inquiry as a stance that we hope all readers will adopt as they continue their work teaching, and inquiring into teaching, throughout the professional lifetime.

In addition to these chapter changes and updates, this fourth edition also more seamlessly integrates the previous material we had available on the book's accompanying website with the text of the book itself by moving

discussion questions into the book's print at the end of each chapter. After the discussion questions, we also print a summary of the online materials available to teach each chapter, making the connection between the book's text and website more fluid.

The fourth edition emerges from our understanding of the literature in the areas of professional development, action research, teacher research, qualitative research, quantitative research, and the process of change as well as our collective experience working with practicing and teacher candidates engaged in inquiry for more than 25 years. Over those 25 years, we have seen how inquiry both endures through the times and shifts in response to the times. To reflect the simultaneous enduring and shifting nature of inquiry, we have purposefully left some of the initial examples of teacher inquiry from the first edition published in 2003 that remain relevant today, but also replaced many examples from the first three editions that were outdated with new examples gathered from teachers since the publication of the third edition in 2014. What we have learned from all the many teacher inquirers we have worked with over the past quarter century about how and why they inquire provides insights into the power that teacher inquiry holds to transform classrooms and schools to places where teachers' voices contribute to the knowledge generated about teaching and learning.

About This Book

Using a journey metaphor, in this text we take you through the process of inquiry step by step. You begin your journey with a brief introduction to teacher inquiry in Chapter 1 and then move to Chapter 2 to define your first inquiry. This chapter, appropriately entitled "The Start of Your Journey: Finding a Wondering," gets you started on an inquiry by engaging you in a series of exercises designed to help you cut through all of the intricacies and complexities of teaching to focus in on one area that you are passionate about studying. We define eight passions as places where you may locate your wondering. The passions we cover are inquiring into an individual child's academic, social, and/or emotional needs; a desire to improve or enrich curriculum; a desire to enhance content knowledge; a desire to improve or experiment with teaching strategies and teaching techniques; a desire to explore the relationship between your beliefs and your classroom practice; an investigation of the intersection between your personal and professional identities; advocating for issues of equity and social justice; and understanding the learning context. As we explore each passion, we use examples from teacher inquirers we have worked with to illustrate the ways their wonderings emerged from the intersection of their real-world classroom experiences and one of the particular passions defined in Chapter 2.

In Chapters 3 and 4 we explore the importance of learning with and from other educators by reading the work of researchers and scholars related to your own investigation and collaborating with colleagues. In these chapters, we guide you through a literature search and four possible structures for inquiry collaboration to support your work. At the close of Chapter 4, you will be ready to begin data collection, a process explored in Chapter 5. In this chapter, we discuss 10 common strategies for data collection used by teacher inquirers (field notes, document analysis, interviews, focus groups, digital pictures, video, reflective journals/blogs, surveys, standardized test scores and other assessment measures, and critical friends group feedback). Throughout our discussion, we point to the ways each of these strategies connects to what you already do in your life and work as a teacher. We do this because we want you to see how teacher inquiry is *a part of* and not *apart from* the work you do as a teacher.

In Chapter 6 we provide important guidelines for you to consider in relation to the ethical dimensions of teaching and inquiry. Key questions are raised to help you make sure that the work you are doing as a teacher and inquirer is ethical and will do no harm to the students you teach.

In Chapter 7 we explore what we have found to be one of the most difficult steps for teacher inquirers—data analysis. We discuss and illustrate the ways you analyze data *as* you are collecting it as well as *after* collection is complete. If you enjoy jigsaw puzzles you will particularly enjoy your journey through this chapter, since we fully develop this metaphor to describe the summative data analysis process step by step. In addition, we use the work of one teacher inquirer to illustrate what data analysis might actually look like in practice.

To extend the learning that happens during data analysis, in Chapter 8 we look closely at sharing your inquiry with others through both oral presentation and writing up your work. One teacher inquirer's work is shared in its entirety to illustrate four basic components of any teacher's inquiry write-up.

In Chapter 9 we help readers ponder the question, "Inquiry for what purpose?" by making the case that the ultimate goal of engagement in inquiry is to create more socially just and equitable schooling experiences for all children. We illustrate this purpose through two stories: one of a long-time teacher researcher and one of four teacher candidates and their professor embarking on inquiry for the first time. Their stories illustrate inquiry as stance, a professional positioning that helps every teacher become the best he or she can be. In Chapter 10 we close the book by discussing stance in greater detail. One part of enacting stance to become the best you can be is reflecting on the quality of the teacher research you produce. Hence, Chapter 10 offers five quality indicators and questions you can ask yourself as you reflect on your own and your colleagues' research, preparing you for a lifetime of professional learning through inquiry.

Across the nation, prospective and practicing teachers vary greatly in their experience with teacher inquiry. Perhaps you are brand new to teacher inquiry. Perhaps you have been engaged in inquiry for years and wish to further the development of teacher inquiry in your school or as part of your graduate program to earn a master's or doctoral degree. Perhaps you wish to make teacher inquiry a more visible or meaningful part of your teacher education program. Perhaps you seek to mentor other professionals in their first inquiries. Wherever you may be in your inquiry journey, we hope this text provides the impetus for you to take the next steps along the pathway of simultaneous renewal and reform, and improve life and learning conditions for *all* of the children you serve. Happy inquiring!

Acknowledgments

We have had the honor and privilege to work with many tremendous teachers throughout our careers, and it is through these teachers' work that we have witnessed the process of inquiry and the power of inquiry as a tool for professional learning. Throughout our careers, we have also always been passionate about raising the voices of teachers in educational reform, teaching, and teacher education. In an effort to raise teacher voices, we weave within this text many rich examples of these teachers' inquiries as we describe the process step by step. Hence, this book would not have been possible without the inquiries that only prospective and practicing teachers can provide. We are grateful to all of the practicing teachers and teacher candidates with whom we have worked. Their time, dedication, and contribution to teacher inquiry and the education profession are immeasurable. We continue to admire their devotion and are grateful for their dedication to the profession of teaching and their support in writing this book.

We are also grateful for numerous colleagues who helped us conceptualize and enact our work with inquiry and have pushed our thinking about the process over time. While in past editions we have attempted to name all the wonderful colleagues who have supported our work, the list is becoming quite long. Therefore, in this edition we name those who have provided feedback specifically on the fourth edition, particularly focused on our more explicit equity focus, our more detailed discussion of the use of literature in teacher research, and new examples to illustrate the inquiry process throughout the text: Scot Baird, Aimee Barber, Megan Blumenreich (and her student Ana Claudia Siqueira Dias), Elizabeth Bondy, Gary Boulware, Rebecca Burns, Christopher Busey, Shelly Curcio (and colleague Beth White along with their students Madeline Donaway, Jessica Eastman, Hannah Kanipe, Bailey O'Neal, E. Ray, and Daira Vassey), Elizabeth Currin, Darby Delane, Natalie Hagler, Melanie Harris, Angela Hooser, Jennifer Jacobs, Kathryn Janicke, Gage Jeter, Angela Kohnen, Mickey MacDonald, Cody Miller, Anne Seraphine, Jennifer Snow, Daniella Suárez, Jenny Van Buren, Vicki Vescio, Hilarie Welsch (and her students Paige Bildstein, Mikhayla Kruse-Meek, Kelly Minear, Jillian Pohland, Nicole Snitkey), Rachel Wolkenhauer, and A. J. Zenkert. We are grateful for these and all of our colleagues named in previous

editions who have supported our work throughout the years. We also thank the great people at Corwin, specifically Dan Alpert, Mia Rodriguez, and Lucas Schleicher, for their support of the fourth edition, as well as Kirsten Dana for her work on new figures introduced in this edition.

Finally, we wish to thank our husbands. In his roles as supervisor of curriculum and staff development, inclusion specialist, special education faculty, and director of the doctoral program at the University of North Florida, David Hoppey has spent the last decade helping practitioners understand how to enact an inquiry stance that can transform the experiences of struggling learners and educational leaders. His work serves as an example to all interested in high-quality special education teacher education, job-embedded professional learning, and educational change. And Tom Dana, the University of Florida's College of Education senior associate dean, continues to lay the foundation for the spread of teacher inquiry that we began at Penn State with his unselfish support and encouragement in the early stages of our work. The many conversations we had as all four editions of this book were taking shape were invaluable to each book's completion. He served as our computer consultant, editor, idea bouncer, and friend. We are grateful for and admire his dedication to rethinking teacher education and building an inquiry stance toward teaching, as well as his awesome administrative talent that makes these things happen.

PUBLISHER'S ACKNOWLEDGMENTS

Corwin gratefully acknowledges the contributions of the following reviewers:

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Nancy Fichtman Dana is currently professor of education in the School of Teaching and Learning at the University of Florida, Gainesville. She began her career in education as an elementary school teacher in Hannibal Central Schools, New York. Since earning her PhD from Florida State University in 1991, she has been a passionate advocate for teacher inquiry and has worked extensively in supporting schools, districts, and universities in implementing powerful programs of job-embedded professional development through inquiry across the United States and in several countries, including China, South Korea, Belgium, Portugal, the Netherlands, Slovenia, and Estonia. She has published 10 books and more than 100 articles in professional journals and edited books focused on her research exploring teacher and principal professional development and practitioner inquiry. Dana has received many honors, including the Association of Teacher Educators Distinguished Research in Teacher Education Award and the National Staff Development Council (now Learning Forward) Book of the Year Award, both honoring Dana and Yendol-Hoppey's work related to practitioner inquiry.

Diane Yendol-Hoppey is professor of education and dean in the College of Education and Human Services at the University of North Florida. Prior to her appointment at the University of North Florida, she served as the associate dean of educator preparation and partnerships at the University of South Florida and director of the Benedum Collaborative at West Virginia University; in addition, she taught for many years at the University of Florida where she was the evaluator of numerous district, state, and national professional development efforts. Before beginning her work in higher education, Yendol-Hoppey spent 13 years as an elementary school teacher in Pennsylvania and Maryland. She holds a PhD in curriculum and instruction from The Pennsylvania State University. Yendol-Hoppey's current work explores national and international research focusing on teacher education clinical practice, job-embedded professional learning, and teacher leadership. Yendol-Hoppey received the AERA Division K Early Career Research Award for her ongoing commitment to researching innovative approaches to professional development. She has published six books and more than 60 articles in professional journals.

How to Use the Inquiry Books

This table summarizes the books we have authored or coauthored related to inquiry and describes their focus, differentiating the texts and delineating their use.

BOOK	AUTHORS	FOCUS
The Reflective Educator's Guide to Classroom Research: Learning to Teach and Teaching to Learn Through Practitioner Inquiry, 4th edition (2020)	Nancy Fichtman Dana Diane Yendol-Hoppey	This book provides an in-depth introduction to teacher inquiry for both prospective and practicing teachers, taking the reader step by step through the process, including developing a wondering, reading literature, collaborating with others, collecting data, analyzing data, sharing one's work, and assessing the quality of inquiry. With an explicit equity focus, this is a great first book on teacher inquiry.
The PLC Book (2016)	Nancy Fichtman Dana Diane Yendol-Hoppey	This book embeds inquiry into a professional learning community model, renewing and energizing the ways this common model for professional development plays out for teachers in schools.
The Reflective Educator's Guide to Professional Development: Coaching Inquiry-Oriented Learning Communities (2008)	Nancy Fichtman Dana Diane Yendol-Hoppey	This book focuses on coaching the inquiry process within professional learning communities. In addition to tips on the establishment of healthy learning communities, it contains numerous coaching resources to take teachers through each stage of the inquiry process.
Leading With Passion and Knowledge: The Principal as Action Researcher (2009)	Nancy Fichtman Dana	This book takes administrators through the process of inquiry step by step, offering rich examples of principals engaged in each step of the process. A perfect resource for districts to provide powerful professional development for principals as well as university professors to help their students enrolled in educational leadership programs write an action research thesis or dissertation.

BOOK	AUTHORS	FOCUS
Powerful Professional Development: Building Expertise Within the Four Walls of Your School (2010)	Diane Yendol-Hoppey Nancy Fichtman Dana	This book provides a bird's-eye view of numerous job-embedded professional development strategies. In addition to a chapter on inquiry, chapters focus on book studies, webinars and podcasts, coteaching, conversation tools, lesson study, culturally responsive and content-focused coaching, and professional learning communities.
Inquiry: A Districtwide Approach to Staff and Student Learning (2011)	Nancy Fichtman Dana Carol Thomas Sylvia Boynton	This book describes the ways engagement in inquiry fits together for all constituencies within a district—principals, teachers, students, and coaches. This systems overview of inquiry and the ways the process can connect improved practice to student achievement enables the reader to enhance learning for adults and students across an entire district.
Digging Deeper Into Action Research: A Teacher Inquirer's Field Guide (2013)	Nancy Fichtman Dana	This book takes off where other introductory texts on action research leave the reader, providing teacher inquirers tips for each part of the inquiry process as they are in the midst of doing it (i.e., developing a wondering, developing an inquiry plan, analyzing data, and presenting one's work). A perfect complement to *The Reflective Educator's Guide to Classroom Research*, this book can also be used as a short, succinct, stand-alone text to guide teachers through the inquiry process in a very targeted and specific way. It may also be used as a text in any university course (whether or not the course focuses on action research) to help students complete a required inquiry-based assignment.
Inquiring Into the Common Core (2013)	Nancy Fichtman Dana Jamey Bolton Burns Rachel Wolkenhauer	This book tells the story of Woodson Elementary School and the ways the teachers and administrators in this building used the process of inquiry to better understand their implementation of the Common Core State Standards (CCSS). In addition, teachers engaged their students in inquiry to actualize the CCSS in classroom practice. Examples of teacher inquiry and student inquiry provide insights for the reader into their own pathway to accelerating achievement with the CCSS as their guide.

CHAPTER 1

Teacher Inquiry Defined

Teaching involves a search for meaning in the world. Teaching is a life project, a calling, a vocation that is an organizing center of all other activities. Teaching is past and future as well as present, it is background as well as foreground, it is depth as well as surface. Teaching is pain and humor, joy and anger, dreariness and epiphany. Teaching is world building, it is architecture and design, it is purpose and moral enterprise. Teaching is a way of being in the world that breaks through the boundaries of the traditional job and in the process redefines all life and teaching itself.

—William Ayers (1989, p. 130)

Whether you are a beginning or veteran teacher, an administrator, or a teacher educator, when you think of teaching, learning to teach, and continuing your growth as a teacher, you cannot help but be struck by the enormous complexities, paradoxes, and tensions inherent in the simple act of teaching itself, captured so eloquently in the quote from William Ayers. With all of these complexities, paradoxes, and tensions, a teacher's work shapes the daily life of his or her classroom. In addition to responding to the needs of the children within the classroom, a teacher is expected to implement endless changes advocated by those outside the four walls of the classroom—administrators, politicians, policymakers, and researchers. While teachers have gained insights into their educational practice from these groups, teachers' voices have typically been absent from larger discussions about educational change and reform. Historically, teachers have not had access to tools that could have brought their knowledge to the table and raised their voices to a high-enough level to be heard in these larger conversations. Teacher inquiry is a vehicle that can be used by teachers to untangle some of the complexities that occur in the profession, raise teachers' voices in discussions of educational reform, and ultimately transform assumptions about the teaching profession itself. Transforming the profession is really the capstone of the teacher inquiry experience. Let's begin our journey into the what, why, and how of teacher inquiry with an overview of the evolution of the teacher inquiry movement and a simple definition of this very complex, rewarding, transformative, provocative, and productive process.

WHAT IS TEACHER INQUIRY?

Understanding the history of teacher inquiry will help you recognize how today, as a current or future educator, you find yourself investigating a new paradigm of learning that can lead to educational renewal and reform. This history lesson begins by looking closely at three educational research traditions: process-product research, qualitative or interpretive research, and teacher inquiry (see Table 1.1).

Two paradigms have dominated educational research on schooling, teaching, and learning in the past. In the first paradigm, the underlying conception of process-product research (Shulman, 1986) portrays teaching as a primarily linear activity and depicts teachers as technicians. The teacher's role is to implement the research findings of outside experts, almost exclusively university researchers, who are considered alien to the everyday happenings in classrooms. In this transmissive mode teachers are not expected to be problem posers or problem solvers. Rather, teachers negotiate dilemmas framed by outside experts and are asked to implement with fidelity a curriculum

TABLE 1.1 Competing Paradigms: The Multiple Voices of Research

	RESEARCH PARADIGMS		
	PROCESS-PRODUCT	**QUALITATIVE OR INTERPRETIVE**	**TEACHER INQUIRY**
Teacher	Teacher as technician	Teacher as story character	Teacher as storyteller
Researcher	Outsider	Outsider	Insider
Process	Linear	Discursive	Cyclical
Source of research question	Researcher	Researcher	Teacher
Type of research question	Focused on control, prediction, or impact	Focused on explaining a process or phenomenon	Focused on providing insight into a teacher's classroom practice in an effort to make change
Example of research question	Which culturally responsive instructional strategies demonstrate the most significant impact on student motivation?	How do children experience culturally responsive instruction?	How can I use culturally responsive instruction to accommodate ESL students at the kindergarten writing table?

designed by those outside of the classroom. Based on this paradigm, many teachers have learned that it is sometimes best not to problematize their classroom experiences and first-hand observations because to do so may mean an admittance of failure to implement curriculum as directed. In fact, the transmissive culture of many schools has demonstrated that teachers can suffer punitive repercussions from highlighting areas that teachers themselves identify as problematic. The consequences of pointing out problems have often resulted in traditional top-down retraining or remediation. In the transmissive view, our educational community does not encourage solution-seeking behavior on the part of classroom teachers.

In the second paradigm—educational research drawn from qualitative or interpretative studies—teaching is portrayed as a highly complex, context-specific, interactive activity. In addition, this qualitative or interpretive paradigm captures differences across classrooms, schools, and communities that are critically important. Chris Clark (1995) identifies the complexity inherent in a teacher's job and the importance of understanding and acknowledging contextual differences as follows: "Description becomes prescription, often with less and less regard for the contextual matters that make the description meaningful in the first place" (p. 20).

Although qualitative or interpretive work attends to issues of context, most of the studies emerging from this research paradigm are conducted by university researchers and are intended for academic audiences. Such school-university research provides valuable insights into the connections between theory and practice, but, like the process-product research, the qualitative or interpretive approach limits teachers' roles in the research process. In fact, the knowledge about teaching and learning generated through university study of theory and practice is still defined and generated by outsiders to the school and classroom. While both the process-product and qualitative research paradigms have generated valuable insights into the teaching and learning process, they have often excluded the voices of the people closest to the children—classroom teachers.

Hence, a third research tradition emerges highlighting the role classroom teachers play as knowledge generators. This tradition is often referred to as "teacher research," "teacher inquiry," "classroom research," "action research," or "practitioner inquiry." In general, the teacher inquiry movement focuses on the concerns of teachers (not outside researchers) and engages teachers in the design, data collection, and interpretation of data around a question. Termed *action research* by Carr and Kemmis (1986), this approach to educational research has many benefits, among them these three: (1) theories and knowledge are generated from research grounded in the realities of educational practice, (2) teachers become collaborators in educational research by investigating their own problems, and (3) teachers play a part in the research process, which makes them more likely to facilitate change based on the knowledge they create.

Elliot (1988) describes action research as a continual set of spirals consisting of reflection and action. Each spiral involves (1) clarifying and diagnosing a practical situation that needs to be improved or a practical problem that needs to be resolved, (2) formulating action strategies to improve the situation or resolve the problem, (3) implementing the action strategies and evaluating their effectiveness, and (4) clarifying the situation, resulting in new definitions of problems or areas for improvement, and so on, to the next spiral of reflection and action.

Note that in our description of this third research tradition we have used a number of terms synonymously—teacher research, action research, classroom research, practitioner inquiry, and teacher inquiry. While these terms have been used interchangeably, they do have somewhat different emphases and histories (Cochran-Smith & Lytle, 2009). Action research, for instance, usually refers to research intended to bring about change of some kind, usually with a social justice focus, whereas teacher research quite often has the goal only of examining a teacher's classroom practice in order to improve it or to better understand what works. For the purposes of this text and to streamline our discussion of research traditions, we have grouped all of these related processes together to represent teachers' systematic study of their own practice. Yet we use the term *inquiry* most often because, in our own coaching of teachers' systematic study of their own practice, we became discouraged by the baggage that the word *research* in the term *action research* carried with it when the concept was first introduced to teachers. The images that the word *research* conjures up come mostly from the process-product paradigm and include "a controlled setting," "an experiment with control and treatment groups," "an objective scientist removed from the subjects of study so as not to contaminate findings," "long hours in the library," and "crunching numbers." Teachers, in general, weren't overly enthused by these images, and it took a good deal of time for us to deconstruct these images and help teachers see that those images were antithetical to what teacher/action research was all about. So, over time, we began replacing the terms *action research* and *teacher research* with one simple word that carried much less baggage with it—*inquiry*—and we will continue this tradition both in this section on research traditions and throughout the remainder of this text.

To help unpack some of the baggage the word *research* carries with it, it is important to further explore the difference between research conducted in a university setting (stemming from the process-product and interpretive paradigms) and inquiry conducted by classroom teachers. First and foremost, in general, the purpose of research conducted by academics and classroom teachers is quite different. The general focus of university-based research is to advance a field. Professors are required to publish their work in journals read by other academics and present their work at national and international venues to their peers at other institutions as evidence of their ability to impact the field broadly. In fact, professors' value within an institution is measured largely by their publication record and the number of times their

publications are cited by others. In contrast, the purpose of engagement in inquiry by classroom teachers is to improve classroom practice. The point of doing inquiry is for implementation and change, not for academic impact (although this can happen too).

The focus of university-based researchers and teacher inquirers is also different. In general, university-based researchers working in the process-product paradigm focus their efforts on control, prediction, and impact, and university-based researchers working in the interpretive paradigm focus their efforts on description, explanation, and understanding of various teaching phenomena. In contrast, teacher inquirers focus on providing insights into teaching in an effort to make change, working tirelessly to unpack all of the complexities inherent in the act of teaching to become the very best teachers they can be for every individual student.

A final difference between research conducted at the university and inquiry conducted by classroom teachers into their own practice is ownership. While the research generated by university researchers is critically important to teachers, it is university researchers who make the decisions about what is important to study and how to go about studying it based on a careful and critical analysis of a broad and extensive body of literature related to the topic of study. In contrast, teacher inquirers make decisions about what is important to study and how to go about studying it based on a careful and critical analysis of what is happening at a local level in their own classrooms, schools, and districts. The work of university-based researchers informs the inquiries of teachers, but ownership of the classroom-based investigation resides with the classroom teachers themselves.

To help distinguish between research produced at a university and inquiry done in classrooms and schools (summarized in Table 1.2), we often invoke the words of Lawrence Stenhouse, who noted, "The difference between a teacher researcher and the large-scale education researcher is like the difference between a farmer with a huge agricultural business to maintain and the 'careful gardener' tending a backyard plot" (Hubbard & Power, 1999, p. 5).

> In agriculture the equation of invested input against gross yield is all: it does not matter if individual plants fail to thrive or die so long as the cost of saving them is greater than the cost of losing them. . . . This does not apply to the careful gardener whose labour is not costed, but a labour of love. He wants each of his plants to thrive, and he can treat each one individually. Indeed he can grow a hundred different plants in his garden and differentiate his treatment of each, pruning his roses, but not his sweet peas. Gardening rather than agriculture is the analogy for education. (Ruddock & Hopkins, 1985, p. 26)

This image of the university-based researcher as a farmer with a huge agricultural business and the teacher inquirer as a gardener helps to encapsulate

the differences between the university-based research you are likely most familiar with and the research you can generate from within the four walls of your own classroom. It is of value to note that the work of both farmers and gardeners is important and somewhat related but also quite different. Such is the case with university-based researchers and teacher inquirers. The work of both is important and somewhat related but quite different. As we discuss each component of the inquiry process in depth throughout this book, you will continue to uncover the importance of both types of research, including the relationship and differences between them.

Now that we have explored three educational research traditions, acknowledged the limitations of the first two traditions, introduced teacher inquiry, and explicated the differences between university-based research and teacher inquiry, our brief history lesson might suggest that teacher inquiry is just another educational fad. However, although the terms *teacher research, action research,* and *teacher inquiry* are comparatively new, the underlying conceptions of teaching as inquiry and the role of teachers as inquirers are not. Early in the 20th century, John Dewey (1933) called for teachers to engage in reflective action that would transition them into inquiry-oriented classroom practitioners. Similarly, noted teacher educator Ken Zeichner (1996) traces and summarizes more than 30 years of research, calling for cultivating an informed practice as illustrated in such descriptors as "teachers as action researchers," "teacher scholars," "teacher innovators," and "teachers as participant observers" (p. 3). Similarly, distinguished scholar Donald Schon (1983, 1987) also depicts teacher professional practice as a cognitive process of posing and exploring problems or dilemmas identified by the teachers themselves. In doing so, teachers ask questions that other researchers may not perceive or deem relevant. In addition, teachers often discern patterns that outsiders may not be able to see.

Given today's political context, where much of the decision making and discussion regarding teachers occur outside the walls of the classroom (Cochran-Smith & Demers, 2010; Cochran-Smith & Lytle, 2009; Darling-Hammond & Rustique-Forrester, 2005), the time seems ripe to create a movement where teachers are armed with the tools of inquiry and are committed to

TABLE 1.2 University-Based Research and Teacher Inquiry Comparison

	UNIVERSITY RESEARCH	TEACHER RESEARCH (INQUIRY)
PURPOSE	Advance a field	Improve classroom practice
FOCUS	Control/Prediction/Impact/ Explanation	Provide insight into teaching in an effort to make change
OWNERSHIP	Outsider	Insider
IMPACT	Broad	Local

educational change. In the words of Joan Thate, one teacher researcher we have worked with,

> Teachers have for so long had perfunctory or no influence on school policy, on curriculum frameworks, on time use, on professional standards—or pretty much anything involving their work experience—EXCEPT in the privacy of their own classrooms. I think this is why the deadly and stifling isolation has become such an intractable monolith. We're all trying to preserve the one area in which we have some choice. But I have long known—gut knowledge eventually found words—that in preserving isolation we were doomed to forever have the locus of power stay in other hands than ours. And real power could only come when we could justifiably say: we know what's best because we have tested the possibilities and have found what works. Inquiry is exciting because it allows for the testing of ideas in real life, and begins to give us the concrete support for insisting attention be paid to what we have to say. (Thate, 2007, personal communication)

If that is our goal, we now need to understand how teacher inquiry can serve as a tool for professional growth and educational reform. We believe that the best stated definitions of teacher research come from teacher inquirers themselves. We end this section with a few definitions of inquiry from teachers we have collaborated with:

> Very simply put, inquiry is a way for me to continue growing as a teacher. Before I became involved in inquiry I'd gotten to the point where I'd go to an inservice and shut off my brain. Most of the teachers I know have been at the same place. If you have been around at all you know that most inservices are the same cheese—just repackaged. Inquiry lets me choose my own growth and gives me tools to validate or jettison my ideas. (Kreinbihl, 2007, personal communication)

> You know that nagging that wakes you in the early hours, then reemerges during your morning preparation time so you cannot remember if you already applied the deodorant, later on the drive to school pushing out of mind those important tasks you needed to accomplish prior to the first bell, and again as the students are entering your class and sharing all the important things happening in their lives. Well, teacher inquiry is the formal stating of that nagging, developing a plan of action to do something about it, putting the plan into action, collecting data, analyzing the collected works, making meaning of your collection, sharing your findings, then repeating the cycle with the new nagging(s) that sprouted up. (Hughes, 2007)

> Teacher inquiry is not something I do; it is more a part of the way I think. Inquiry involves exciting and meaningful discussions with colleagues about the passions we embrace in our profession. It has

become the gratifying response to formalizing the questions that enter my mind as I teach. It is a learning process that keeps me passionate about teaching. (Hubbell, 2007)

WHAT IS THE RELATIONSHIP BETWEEN TEACHER INQUIRY AND TEACHER PROFESSIONAL GROWTH?

Simply stated, teacher inquiry is defined as systematic, intentional study of one's own professional practice (see, e.g., Cochran-Smith & Lytle, 1993; Dana, Gimbert, & Silva, 1999; Hubbard & Power, 1993). Inquiring professionals seek out change by reflecting on their practice. They do this by posing questions or wonderings, collecting data to gain insights into their wonderings, analyzing the data along with reading relevant literature, making changes in practice based on new understandings developed during inquiry, and sharing findings with others. Hence, whether you are a teacher candidate at the dawn of your teaching career or a veteran teacher with years of experience facing new educational challenges every day, teacher inquiry becomes a powerful vehicle for learning and reform.

As a teacher inquirer in charge of your own learning, you become a part of a larger struggle in education—the struggle to better understand, inform, shape, reshape, and reform standard school practice (Cochran-Smith, 1991). Teacher inquiry differs from traditional professional development for teachers, which has typically focused on the knowledge of an outside expert being shared with a group of teachers. This traditional model of professional growth, usually delivered as a part of traditional staff development, may appear as an efficient method of disseminating information but often does not result in real and meaningful change in the classroom (Yendol-Hoppey & Dana, 2010).

Those dissatisfied with the traditional model of professional development suggest a need for new approaches that enhance professional growth and lead to real change. Traditional models of professional development (defined as relying on the accumulation of information from outside sources with no systematic and intentional plan for studied implementation) have not yielded widespread student learning results. Those recognizing the limitations of the traditional model of professional development have pressed for more impactful approaches to teacher learning. In order to help us differentiate approaches, Kennedy (2016) identified four different approaches that characterize the nature of teacher professional learning. The first is a didactic approach that focuses on learning a specific prescribed set of teacher actions. The second is a form of targeted assistance that focuses on helping teachers make strategic decisions by selecting among and evaluating multiple instructional strategies. A third approach encourages teachers to gain insights into their instruction by investigating practice from multiple perspectives and rendering professional judgment. Finally, the fourth approach, much like a course, focuses on providing teachers the opportunity to accumulate a body

of knowledge from an outside source with no expectations of application. In her research Kennedy found that only the *strategic* and *insight* approaches were likely to have an impact on student achievement.

In addition to recognizing the impact of the strategic and insight approaches, we benefit by understanding the characteristics of quality professional learning. Desimone (2009) describes impactful professional learning as including five key characteristics: (1) a content focus, (2) active learning that includes teacher observation, practice, dialogue, and examination of student learning, (3) coherence that is context sensitive and aligned with organizational goals, (4) duration that occurs over time, and (5) collective participation that supports collaborative learning. In combination, Desimone's characteristics and Kennedy's strategic and insight approaches to learning are central elements to systematically and intentionally investigating one's own practice.

Consonant with the movement to change traditional professional development practices is the teacher inquiry movement. This movement toward a new model of professional growth based on inquiry into one's own practice can be powerfully developed by school districts and building administrators as a form of professional development. By participating in teacher inquiry, the teacher develops a sense of ownership in the knowledge constructed. This sense of ownership heavily contributes to the possibilities for real change to take place in the classroom.

The ultimate goal is to create an inquiry stance toward teaching (Cochran-Smith & Lytle, 2009). This stance becomes a professional positioning, owned by the teacher, where questioning one's own practice becomes part of the teacher's work and eventually a part of the teaching culture (Dana, 2015).

By cultivating this inquiry stance toward teaching, teachers play a critical role in enhancing their own professional growth and, ultimately, the experience of schooling for children. Thus, an inquiry stance is synonymous with professional growth and provides a nontraditional approach to staff development that can lead to meaningful change for children.

WHAT EVIDENCE EXISTS THAT TEACHER INQUIRY IS WORTH DOING?

At this point in the chapter, you may be thinking that this process called teacher inquiry sounds okay in theory, but you have developed a healthy skepticism. The everyday work of teaching is challenging, and teachers are constantly asked to do more and more with less and less. If teachers are to incorporate inquiry into their very full days, it's important to know what evidence exists that it is truly worth doing.

Fortunately, evidence abounds that teachers' engagement in inquiry is indeed worth the effort. The first set of evidence comes from teachers themselves

who have published their work. There are numerous collections of teacher research, and from reading and analyzing the work of actual teacher researchers that appear in these collections, it is clear that engagement in inquiry can have a powerful impact on the professional learning of teachers and the lives of the students in their classrooms. Some of our favorite collections of teacher research include the following:

- *Engaging in Educational Change: Voices of Practitioner Inquiry* (Fleet, De Giola, & Patterson, 2016). This book contains real-life cases of several teachers across various classroom contexts in Australia capturing their stories of inquiry to improve their practice and ultimately outcomes for the children they teach.
- *Creating Equitable Classrooms Through Action Research* (Caro-Bruce, Flessner, Klehr, & Zeichner, 2007). This book shares the research of 10 educators from the Madison Wisconsin Metropolitan School District, whose inquiries focused on making their school district a more equitable place for all learners.
- *Taking Action With Teacher Research* (Meyers & Rust, 2003). This book shares the research of six teacher researchers from the Teacher Network Leadership Institute in New York, whose inquiries focused on political action.
- *Empowering the Voice of the Teacher Researcher: Achieving Success Through a Culture of Inquiry* (Brindley & Crocco, 2009). This book shares the research of six teacher researchers from a single school in Florida, whose inquiries focus on better meeting the needs of middle school children.
- *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)* (Perry, Henderson, & Meier, 2012). This book shares the research of six early childhood professionals, working in both primary grades and preschool, as well as reviews of some of the finer points of the inquiry process and how it is particularly suited for early childhood contexts.
- *Teachers Engaged in Research* (Langrall, 2006; Masingila, 2006; Smith & Smith, 2006; Van Zoest, 2006). This four-volume series published by the National Council of Teachers of Mathematics (NCTM) shares the inquiries of several teachers into their mathematics teaching in Grades K–2, 3–5, 6–8, and 9–12, respectively.

The second set of evidence that teacher inquiry is worth doing comes from university-based researchers. There is a large body of university-based research conducted on both teacher candidates and practicing teachers engaged in the inquiry process to better understand the impact of their work. One of the most extensive studies of impact was published by Sue Nichols and Phil Cormack in the text *Impactful Practitioner Inquiry: The Ripple*

Effect on Classrooms, Schools, and Teacher Professionalism (2017). These University of South Australia faculty began their research on the process of inquiry by developing a data base of 339 educators who had participated in inquiry projects with them in various capacities over the course of a 10-year timespan, and successfully made contact with 290 of the individuals amassed in their database. To understand inquiry impact, Nichols and Cormack collected data from these educators in three ways: a survey, interviews with the inquirers, and interviews with the inquirers' colleagues. Among other impacts, teachers reported that engagement in inquiry enabled them to

- view the curriculum differently,
- develop new resources,
- see new connections between practice and theory,
- increase the diversity of learning activities offered to students,
- modify existing resources to benefit student learning,
- view students from a strengths-based rather than deficit perspective,
- increase their use of technology to enhance learning,
- incorporate more student choice into lessons,
- increase range of assessment practices, and
- integrate inquiry as a pedagogical approach to their own teaching of students (Nichols & Cormack, 2017, p. 14).

Complementing the work of Nichols and Cormack, several studies have also reported on the influence practitioner inquiry has had on both teacher candidate and practicing teacher learning, concluding that practitioner inquiry

- enables a safe environment to pose questions (Salerno & Kibler, 2015);
- promotes growth and change in teaching practice (Dresser, 2007; Ermeling, 2010; Levin & Rock, 2003; Rock & Levin, 2002) and enhances teacher identity (Taylor, 2017);
- increases data literacy (Athanases, Wahleithner, & Bennett, 2012);
- leads to increased efficacy and confidence (Hines & Conner-Zachocki, 2015); and
- fosters teacher empowerment and transformation (Bonner, 2006; Esposito & Smith, 2006; Merino & Holmes, 2006).

While we share some studies on the impact of inquiry above, it is beyond the scope of this book to review *all* of the empirical studies completed by academics focused on teachers' engagement in inquiry. Many additional studies are reviewed and referenced in Marilyn Cochran-Smith and Susan Lytle's

book *Inquiry as Stance: Practitioner Research for the Next Generation* (2009). It is clear from the studies we reviewed here as well as the extensive review of research on teacher inquiry in the Cochran-Smith and Lytle text that engaging in the inquiry process results in several benefits for both teacher candidates who conduct inquiry as a part of their studies in teaching at the university and practicing teachers who conduct inquiry as part of their everyday work in schools.

The publications by teachers of their own inquiries as well as publications by university-based researchers that report research efforts to understand the impact of teachers' engagement in the process attest to the important role inquiry can play in the lives of teachers and the children they teach.

HOW IS TEACHER INQUIRY DIFFERENT FROM WHAT I ALREADY DO AS A REFLECTIVE TEACHER?

All teachers reflect. They reflect on what happened during previously taught lessons as they plan lessons for the future. They reflect on their students' performance as they assess their work. They reflect on the content and the best pedagogy available to teach that content to their learners. They reflect on interactions they observed students having, as well as on their own interactions with students and the ways these interactions contribute to learning. Teachers reflect all day, every day, *on* the act of teaching while *in* the act of teaching and long after the school day is over.

Reflection is important and critical to good teaching (Korkko, M., Kyro-Ämmälä, & Turunen, 2016; Loughran, 2010; Schon, 1987; Zeichner & Liston, 1996). In addition, reflection is a key component of teacher inquiry. Yet teacher inquiry is different from daily reflection in and on practice in two important ways. First, teacher inquiry is less happenstance. The very definition of teacher inquiry includes the word *intentional*. We do not mean to suggest that reflection is never intentional, but in the busy, complex life of teaching, reflection is something that occurs most often in an unplanned way, such as on the way to the teachers' room for lunch, during a chat with a colleague during a special, when students are engaged in an independent activity, on the drive home, in the shower, or during dinner—wherever and whenever a moment arises. Unfortunately, few teachers have a planned reflection time. Teacher inquiry invites intentional, planned reflection, heightening your focus on problem posing. Second, teacher inquiry is more visible. The daily reflection teachers engage in is not observable by others unless it is given some form (perhaps through talk or journaling). As teachers engage in the process of inquiry, their thinking and reflection are made public for discussion, sharing, debate, and purposeful educative conversation, and teaching becomes less isolated and overwhelming. Gail Ritchie, veteran teacher researcher from Fairfax County Schools, Virginia, notes that the goal of being a teacher researcher is to facilitate teaching and

learning and maximize student potential. As teacher researchers engage in reflection, they intentionally ask questions about teaching and learning, organize and collect information, focus on a specific area of inquiry, and benefit from ongoing collaboration and support of critical friends (Lassonde, Ritchie, & Fox, 2008).

WHY INQUIRE? INQUIRY AS A PATHWAY TO EQUITY

Up to this point in Chapter 1 we have been defining inquiry by describing the process and its history, connecting inquiry to professional growth, providing evidence of inquiry's value, and distinguishing inquiry from everyday reflective practice that is the foundation of good teaching. Yet, we have not yet addressed the most important question. As a part of defining inquiry, it is imperative for educators to ask, "Inquiry for what purpose? What do teachers inquire for?"

One reason it is critical to pose this question is that inquiry is not a new fad. As mentioned earlier in this chapter, teachers have been researching their own practice for decades. As inquiry has evolved through the years, it has been "shaped and reshaped in relationship to the era within which it has existed" (Dana, 2016, p. 1). As a process evolves and shape-shifts "both *through* time and *in response to* the times, those who engage in the process can easily lose sight of *why* they are doing it in the first place" (Dana & Currin, 2017, p. 1). Hence, the "why" of inquiry is not always made explicit when the process is first taught to teacher candidates as a part of their teacher education programs or to practicing teachers as a mechanism for professional development.

To answer the "Why inquire?" question, we turn to the most pervasive problem of practice that all educators face today—the persistent achievement gap in America's schools. People of color and those living in poverty struggle to succeed in an educational system that inadequately supports their chances for achievement. The term *achievement gap* is used widely by educators to reflect the disparity that exists, as measured by standardized test scores, in academic achievement between minoritized groups, primarily African Americans, Hispanics, and American Indians, and the dominant group, primarily Whites, as well as variance in performance by students based on socioeconomic status (Clark, 2013; Darling-Hammond, 2013). While educators still broadly use the term *achievement gap* to discuss the schooling experiences of different groups of students throughout the nation, several educational scholars have noted the need to reframe the discussion with the term *opportunity gap* to reflect the fact that the inequalities that exist in schools are a direct consequence of the inequalities that exist within our society, encompassing systemic disparities in health care, wealth, education, affordable housing, quality child care, school funding, teacher quality, and curricula (Boykin & Noguera, 2011; Ladson-Billings, 2007; Milner, 2010; Welner & Carter, 2013).

Hence, understanding and correcting the inequalities that exist in schools and society is of critical importance to all educators. Engagement in inquiry can be a powerful pathway to the creation of more equitable classrooms. In fact, distinguished scholars of the practitioner research movement, Marilyn Cochran-Smith and Susan Lytle, maintain that the ultimate goal of practitioner inquiry "always and in every context" is to enhance "students' learning and life chances for participation in and contribution to a diverse and democratic society" (Cochran-Smith and Lytle, 2009, p. 146). Teachers engage in inquiry for equity to increase the learning and life chances of every student with whom they work, regardless of factors (e.g., race, socioeconomic status, gender, sexuality, and ability) that often inhibit students in an educational system that was not designed to meet their needs. Returning to one of the largest research studies undertaken on the impact of inquiry we introduced earlier in this chapter, educational researchers Sue Nichols and Phil Cormack reported, "Practitioner research was at its most powerful when it served [teachers'] ethical commitments to struggling students" (Nichols & Cormack, 2017, p. 20), reinforcing the importance of inquiry undertaken for more equitable learning and schooling experiences for all.

Whereas the creation of more just and more equitable schooling experiences is the ultimate goal of engagement in the process of inquiry, not all teachers first come to inquiry with an equity focus, but rather discover this underlying problem of practice through time and several cycles of the inquiry process. For this reason, in this text as we teach about each component of the inquiry process in Chapters 2 through 8, we will both highlight many examples of inquiry related to the creation of more equitable learning experiences, but we will also share examples of the process that may not be directly related to issues of equity, but nonetheless, did serve as powerful professional learning experiences for teachers and teacher candidates at the start of their inquiry journeys. We will return to the ultimate equity goal of practitioner inquiry in Chapter 9, where we share the story of a prolific teacher researcher who came to see inquiry as a pathway to equity over time, as well as teacher candidates who are beginning their teaching careers with a passion for using inquiry to examine issues of equity.

WHAT ARE SOME CONTEXTS RIPE FOR TEACHER INQUIRY?

With an understanding of what teacher inquiry is and the ultimate reason for engaging in the process, let us consider the kinds of contexts that support teacher inquiry. As previously discussed, teaching is full of enormous complexities, paradoxes, and tensions, and hence, teaching itself invites inquiry. However, even as inquiry beckons each and every teacher, becoming a lone inquirer is difficult! For this reason, we explore four particularly ripe contexts for facilitating the development of an inquiry stance in practicing and teacher

candidates: (1) professional learning communities, (2) student teaching and/or other clinical experiences, (3) professional development schools, and (4) professional practice doctoral programs. You may currently be a part of one of these four contexts or you may wish to seek these contexts out as you begin or continue your teaching career.

Professional Learning Communities

Professional learning communities (PLCs) serve to connect and network groups of professionals to do just what their name entails—to *learn* from practice. PLCs meet on a regular basis, and their time together is often structured by the use of protocols to ensure focused, deliberate conversation and dialogue by teachers about student work and student learning. Protocols for educators provide a script or series of timed steps for how a conversation among teachers on a chosen topic will develop (Dana & Yendol-Hoppey, 2016).

A variety of protocols have been developed for use in PLCs by a number of noteworthy organizations such as Learning Forward (see, e.g., Lois Brown Easton's *Powerful Designs for Professional Learning,* 2004), School Reform Initiative (www.schoolreforminitiative.org), and the National School Reform Faculty (www.nsrfharmony.org), which developed one version of a PLC called Critical Friends Groups (CFGs). In their work conceptualizing CFGs, the National School Reform Faculty laid much of the groundwork for shifting the nature of the dialogue between and among teachers about their practice in schools, and is responsible for training thousands of teachers to focus on developing collegial relationships, encouraging reflective practice, and rethinking leadership in restructuring schools. The CFGs provide deliberate time and structures dedicated to promoting adult professional growth that is directly linked to student learning.

By their own nature, then, PLCs enhance the possibilities for conducting an inquiry and cultivating a community of inquirers. In fact, in our companion book to this text, *The Reflective Educator's Guide to Professional Development* (Dana & Yendol-Hoppey, 2008a), as well as in our book simply titled *The PLC Book* (2016), we describe a model for school-based professional development that combines some of the best of what we know about action research and PLCs and, in the process, address a weakness that has been defined in traditional professional development practices. We name this new entity the "inquiry-oriented PLC" and define it as a group of six to twelve professionals who meet on a regular basis to learn from practice through structured dialogue and engage in continuous cycles through the process of action research (articulating a wondering, collecting data to gain insights into the wondering, analyzing data, making improvements in practice based on what is learned, and sharing learning with others). The book *Inquiry: A Districtwide Approach to Staff and Student Learning* illustrates inquiry-oriented learning communities of teachers and principals and how they can be set up across an entire district (Dana, Thomas, & Boynton, 2011).

Student Teaching and/or Other Clinical Experiences

If you are a veteran teacher, you likely reminisce about your own student teaching experience as an important feature of your preservice education. Similarly, if you are a teacher candidate, you have likely looked forward to your clinical experiences with great anticipation. According to a report prepared by the American Association of Colleges for Teacher Education (AACTE), a paradigmatic shift in teacher preparation is needed that places a greater emphasis on the clinical experience and learning within the field. The goal is to prepare teachers who are simultaneously content experts and innovators, collaborators, and problem solvers. According to the report,

> Clinical practice offers a lens through which to understand the problems of practice that currently face the profession, stemming from factors such as demographic changes, poverty, and teacher shortages. The problematizing of these issues allows for creative thinking and innovation by the many players engaged in the clinical practice space. (AACTE, 2018, p. 8)

Within the report, teacher inquiry is highlighted as an important tool for strengthening clinical practice, and an inquiry stance is an orientation believed to strengthen teacher preparation. Mounting evidence suggests that field experiences that include engagement in teacher inquiry enhance the quality of teacher preparation (see, e.g., Dana & Silva, 2001; Delane, Hooser, Richner, Wolkenhauer, Colvine, & Dana, 2017; Yendol-Hoppey & Franco, 2014). The reason that inquiry has become so much a part of quality teacher preparation is quite logical. Given that the act of teaching is an enormously complex endeavor, learning to teach in any brief, simple, and step-by-step way is impossible. As a teacher candidate, you are immersed in the complexities of teaching for the first time in clinical experiences. Immersion in this complexity naturally encourages engagement in inquiry, since questions about teaching, schools, and schooling abound. As you student teach, inquiry can help you learn to identify the complexities and problems inherent in teaching and tease these complexities apart to gain insights into your work with children. Given the comprehensive nature of teaching, identifying complexities and striving to understand them is a process that lasts an entire career. Engagement in teacher inquiry as an integral component of field preparation enhances the power of the field experience. As you simultaneously learn to teach and to inquire into teaching, these two processes become intricately intertwined. When teaching and inquiry become synonymous, you have cultivated an inquiry stance toward teaching that will serve you, your students, and the field of education well for the duration of your career!

Professional Development Schools and Other Networks

Since the late 1980s, a specialized setting for student teaching and other field experiences has emerged—professional development schools (PDSs). According to Darling-Hammond (1994), PDSs

> aim to provide new models of teacher education and development by serving as exemplars of practice, builders of knowledge, and vehicles for communicating professional understanding among teacher educators, novices, and veteran teachers. They support the learning of teacher candidates and beginning teachers by creating settings in which novices enter professional practice by working with expert practitioners, enabling veteran teachers to renew their own professional development and assume new roles as mentors, university adjuncts, and teacher leaders. They allow school and university educators to engage jointly in research and rethinking of practice, thus creating an opportunity for the profession to expand its knowledge base by putting research into practice—and practice into research. (Darling-Hammond, 1994, p. 1)

In a PDS, then, teacher inquiry is a central part of the professional practice of all members—practicing teachers, teacher candidates, administrators, and university teacher educators. This transition to inquiry is the mechanism for reinventing schools as learning organizations. Hence, a PDS culture supports and celebrates the engagement of teachers and other PDS professionals in constructing knowledge through intentional, systematic inquiry and using that knowledge to continually reform, refine, and change the practice of teaching (Dana, 2017; Dana, Smith & Yendol-Hoppey, 2011; Yendol-Hoppey & Dana, 2008).

PDSs have organized themselves through a national network, the National Association of Professional Development Schools (NAPDS). The vision of this organization is to serve as an advocate for those dedicated to promoting the continuous development of collaborative P–12 school and higher education relationships. Specific examples illustrating how inquiry is central to the work of PDSs can be found in the Fall 2017 special themed edition of *School-University Partnerships* entitled "Teacher Inquiry in Professional Development Schools: How it Makes a Difference." The work of teacher inquiry remains a vital component of the NAPDS, and teacher inquirers regularly share their work at the NAPDS conference.

In addition to NAPDS, a variety of other educational networks support the teacher inquiry movement. For example, the National Network for

Educational Renewal (NNER) embraces the work of inquiry as a central component to school improvement. NNER's goal is to improve the quality of P–12 education for thoughtful and informed participation in a democracy. One way this improvement occurs is through developing programs that encourage teachers to inquire into the nature of teaching and schooling, with the intention that practitioners will make inquiry a natural aspect of their professional lives. These are just a few of the larger national networks that support teacher inquiry.

Professional Practice Doctoral Programs

In recognition of the need to cultivate leaders and change agents in educational reform that will not leave their practice contexts to become *professional researchers* in institutions of higher education, but instead, remain in their schools and districts and function as *researching professionals,* well positioned to tackle the most pervasive problems our education system faces, a new focus on professional practice doctoral programs has emerged (Shulman, Golde, Bueschel, & Garabendian, 2006). Led by the Carnegie Project on the Education Doctorate (CPED) (Perry & Imig, 2008), the professional practice doctorate is a national movement. The goal of the professional practice doctoral degree is to meet the unique needs of practitioners who do not wish to leave their positions on the front lines to enter higher education, but want to earn their doctorates to develop the skills to lead informed change and improvements from within their schools and classrooms. Termed *scholarly practitioners* by CPED, these professionals use "practical research and applied theory as tools of change" (Perry, 2013, p. 3) as they "direct their research to the improvement of practice, based in the needs of the organizations that they seek to help and blend research methods with problems of practice" (Barnett & Muth, 2008, p. 12). Since the work of the practitioner scholar targets "empirical inquiry that is more closely tied to practice settings than to theoretical questions" (McClintock, 2004, p.4), engagement in inquiry/action research has been adopted as a signature pedagogy in many professional practice doctoral programs as they have been launched across the nation (Buss, 2018; Dana, Bondy, Kennedy-Lewis, Adams, & Ma, 2016; Wetzel & Ewbanks, 2013), culminating with the Dissertation in Practice, a study that uses practitioner inquiry as the primary research methodology (Ma, Dana, Adams, & Kennedy, 2018). Hence, several advanced practitioners working on their doctorates are using the process of inquiry introduced in this book to earn the terminal degree in the field, seamlessly weaving into their career trajectory the centrality of taking an inquiry stance toward their practice to transform the schooling experience from the inside out, rather than from the outside in.

HOW DOES MY ENGAGING IN TEACHER INQUIRY HELP SHAPE THE PROFESSION OF TEACHING?

Regardless of your method of inquiry, the subject of your inquiry, or the context of your inquiry, what is most important is that you do inquire! For decades, scholars of teaching and teacher education, such as Aronowitz and Giroux (1985), Greene (1986), and Zeichner (1986), have argued that "teachers are decision makers and collaborators who must reclaim their roles in the shaping of practice by taking a stand as both educators and activists" (Cochran-Smith, 1991, p. 280). These calls continue today as educators engage in inquiry to change, enhance, and challenge their practices (Cochran-Smith, 2004; Cochran-Smith & Stern, 2015). Inquiry is a core tool that teachers use when making informed and systematic decisions. Through the inquiry process, teachers can support with evidence the decisions they make as educators and, subsequently, advocate for particular children, changes in curriculum, and/or changes in pedagogy. Inquiry ultimately emerges as action and results in change.

As a teacher candidate, practicing teacher, mentor teacher, and/or doctoral student interested in problematizing your professional practice, you have committed to simultaneous renewal and reform of the teaching profession and teacher education. Teacher inquiry is the ticket to enact this reform! Cochran-Smith and Lytle (1993) claim that in any classroom where teacher inquiry is occurring, "there is a radical, but quiet kind of educational reform in process" (p. 101). Your individual engagement in teacher inquiry is a contribution to larger educational reform, a transformation of the teaching profession . . . so, let us begin the journey.

Look at some examples of teacher research published in the collections we mentioned in this chapter or that you may find in journals such as *Journal of Practitioner Research, Journal of Teacher Action Research, Voices of Practitioners, Action Research,* and *Networks: An Online Journal for Teacher Research*. What are some things you notice about the process of inquiry you will explore in this book from looking at actual examples of teachers' research?

Start a journal to trace your own inquiry journey as you proceed through this book. For your first entry, capture both the excitement and enthusiasm you may be feeling for the inquiry process after reading Chapter 1,

as well as any apprehension or trepidation you feel about the process. Use these sentence starters as your journal prompts:

My greatest hopes for engaging in the inquiry process include . . .

My greatest fears for engaging in the inquiry process include . . .

Discuss your responses with colleagues and continue to use your journal throughout the text to respond to the exercises provided in each chapter. When you actually begin your own inquiry, your journal can evolve into a way to collect data (covered in Chapter 5).

What role does teacher inquiry play in educational reform?

The authors state, "Teacher inquiry is a vehicle that can be used by teachers to untangle some of the complexities that occur in the profession, raise teachers' voices in discussions of educational reform, and ultimately transform assumptions about the teaching profession itself." What are some common assumptions the general public holds about teaching and learning that you would like to see challenged? How can your engagement in inquiry help to challenge these assumptions?

What conceptions about educational research did you hold prior to beginning this book? To articulate your prior conceptions, consider the following:

Who does educational research?

Where is educational research done?

When is educational research done?

Why is educational research done?

How is educational research done?

What do you see as the strengths and weaknesses of educational research?

Do you think that practitioners value educational research? Why or why not?

Is there anything missing from educational research as you see it?

In what ways might engagement in teacher inquiry address what is missing?

How does engagement in teacher inquiry differ from traditional models of professional development?

Which ripe contexts for teacher inquiry (PLCs, student teaching and/or other clinical experiences, PDSs, and other teacher networks, or professional practice doctoral programs) are most pertinent to your current

position? How can/will engagement in inquiry become a part of your current work as an educator?

How can inquiry be a powerful tool in creating more equitable classrooms?

What excites you about the teacher inquiry movement? What concerns you?

How do you feel about embarking on your personal teacher inquiry journey?

The following materials for teaching this chapter are available for download at :

This activity provides 12 short quotes from Chapter 1 that can be distributed for paired discussions to introduce readers to the chapter.

This activity asks readers to highlight the passages that are most significant to them and provides steps to discuss their selected significant passages in groups of four.

This activity asks readers to brainstorm several hopes and fears for studying their own practice, placing each individual hope and fear on a different sticky note for analysis in small groups.

CHAPTER 2

The Start of Your Journey

Finding a Wondering

WHERE DO I BEGIN?

In Chapter 1 we welcomed you to teacher inquiry by defining the process, discussing inquiry as professional development, and exploring the relationship between inquiry and educational reform. This welcome to inquiry places you, as teacher candidates and practicing teachers, in charge of your own professional growth and development. Leading your own learning is likely quite different from many of your past experiences in preservice and inservice teacher education. If you are a teacher candidate, up to this point you have likely engaged in coursework at college, where professors define learning objectives for you in course syllabi, choose your education texts, and define assignments that you must complete to be eligible for graduation and initial certification. If you are a veteran teacher, you have likely attended inservice sessions covering topics selected for you by administrators or curriculum specialists in your district or perhaps topics mandated by your state. Hence, by taking charge of your own learning, you are beginning your journey into uncharted territory! Charting new territory, when you are unfamiliar with both the terrain and your final destination, can be exciting but also quite frightening. Beginning your journey becomes less daunting after you do some initial preparation and take your first steps.

Just as hikers gather certain equipment before starting a hike, as a teacher inquirer you will need maps and a compass before you embark on your first inquiry journey. The map for this journey is what Charles Kettering refers to as the welcoming attitude toward, and active seeking of, change: "Essentially research is nothing but a state of mind . . . a friendly, welcoming attitude toward change . . . going out to look for change instead of waiting for it to come" (Kettering, in Boyd, 1961, p. 91). This welcoming attitude provides the foundation for mapping your inquiry journey. The compass that provides the direction or question for your inquiry comes from critical reflection in and on your own teaching practice.

As teachers seek out change and reflect on practice, the first step of their journey begins with brainstorming questions or wonderings for exploration. One teacher inquirer describes the new stance she assumed toward her teaching as she prepared to begin her inquiry journey as follows:

> A teacher inquirer is someone who searches for questions as well as answers. I am learning that saying, "I don't know" is not an admittance of failure, but a precursor of positive change. I have become comfortable with the expressions: "I wonder . . . ," "I think . . . ," and "What if . . . ?" (Stiles, 1999)

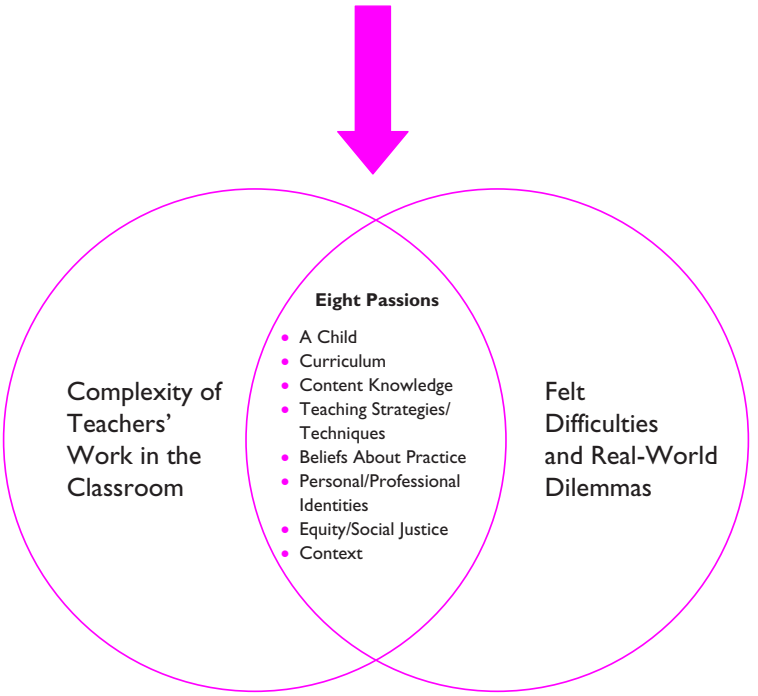
WHERE DO I FIND MY WONDERINGS AND QUESTIONS?

A teacher's completion of the expressions "I wonder . . . ," "I think . . . ," and "What if . . . ?" do not materialize out of thin air. According to Hubbard and Power, teachers' wonderings and questions come from their "real world observations and dilemmas" (Hubbard & Power, 1993, p. 2). After working with hundreds of teacher researchers, we believe that a teacher's wonderings materialize as professional passions at the nexus of a teacher's work—his or her teaching dilemmas or felt difficulties (see Figure 2.1).

The complex nature of teaching makes the profession an especially ripe context for cultivating an inquiry question. Teaching requires teachers to make sense of the interaction among the following five elements simultaneously: (1) the context, (2) the content, (3) the children, (4) the teacher's own beliefs or dispositions, and (5) the acts of teaching. So how do teachers think about the five elements of teacher work? In any teaching event, teachers consider the context in which they teach. For instance, they may ponder, "What resources are available?," "What are the state standards or system objectives?," "What support is provided for this innovation?," or "How will the broader community react?" In conjunction with thinking about context, teachers also make sure they understand the key content knowledge that must be constructed. Teachers ask, "What misinformation or misunderstandings often occur as children construct knowledge in this area?" and "What are the multiple perspectives that must be shared in order to capture the complexity of the content?"

In addition to recognizing the impact of the context and the key underpinnings of the content that must be taught, teachers consider the children they will need to teach. They raise questions such as, "Who will need more scaffolding?," "How can I make this content relevant to my students?," "What unique assets might my students bring to their learning?," and "How can I accommodate the diverse learners within my classroom?" All of these areas of concern and questions influence the acts of teaching. For example, as teachers determine which curriculum and content are relevant, they plan, select, and use instructional strategies. They also identify assessment tools

FINDING YOUR WONDERING



that will support student learning. Teacher decision making is even further complicated by the presence of a teacher's beliefs and professional identities. Teachers may wonder, "How do my own attitudes toward writing influence my teaching?" or "How do my beliefs about learning influence the way I accommodate diverse learners?" These five elements are central to teachers' thinking and provide the foundation for identifying felt difficulties or teaching dilemmas that prompt the development of inquiry questions.

Qualitative researcher Robert Sherman (Sherman & Webb, 1997) argues that powerful research questions emerge from so-called felt difficulties. Teachers are constantly faced with felt difficulties or dilemmas as they reflect in and on their acts of teaching. As a result, these felt difficulties are direct concerns that emerge from one's own teaching experiences. Figure 2.1 presents how these five elements representing the complexity of teaching and the resulting dilemmas, or felt difficulties of teaching, merge to form eight passions.

In this chapter we map out the eight passions that emerged from our analysis of more than 100 teacher inquiries (Dana, Yendol-Hoppey, & Snow-Gerono, 2006). In many ways the eight passions overlap, but we present them as distinct

entities in order to help you explore an array of possibilities for finding and defining your first wondering. Each passion is illustrated with the work of one or more teacher inquirers. As we share excerpts from the work of these teacher candidates and practicing teachers, we analyze the thought processes they used to derive their first wondering. In so doing, we offer you practical suggestions and guidance as you progress through a similar process. Finally, we end each section with exercises designed to help you explore areas ripe for the development of your wonderings. You may wish to pause at the end of each section to complete these exercises before reading further. By the end of this chapter, we hope you will have defined a question to get you started, and that you can celebrate the completion of what is often the most difficult component of teacher inquiry—defining your question and getting started.

As you interact with this chapter to define a question that will get you started on your inquiry journey, it is important to note that the passions we present in this chapter (A Child, Curriculum, Content Knowledge, Teaching Strategies/Techniques, Beliefs About Practice, Personal/Professional Identities, Equity/Social Justice, and Context) are not meant to be topics or categories for inquiry questions but rather triggers for you to explore dilemmas that may be surfacing in your teaching practice from which questions worthy of study may emerge. As triggers rather than topics or categories, the exercises you engage in related to one passion might lead you to develop a question that seems to fit within another. It matters not what passion your inquiry seems to fit within. In fact, as you will see in the examples we provide in this chapter, a single inquiry question may overlap with several passions. What matters as you read this chapter is that you use the passions to conduct a careful and critical analysis of your teaching and explore many possibilities for great wonderings you might choose to pursue.

As you use these passions to examine your own teaching, observe the ways teachers' interactions with several of the passions unearthed wonderings that related in some way to the ultimate "Why" of teacher inquiry discussed in Chapter 1—the creation of more equitable classrooms and schools. Take note of the ways the birth of wonderings related to the creation of more equitable schooling experiences often occur even when the passion explored may not appear to be directly related to issues of equity at the start, and keep this ultimate goal of engagement in inquiry in mind as you read, reflect, and wonder.

Passion 1: Helping an Individual Child

You are likely familiar with a very common saying proudly displayed by many teachers:

> *A hundred years from now, it will not matter what my bank account was, the sort of house I lived in, or the kind of car I drove. But the world may be different because I was important in the life of a child.*

In fact, you may have very well entered the teaching profession on the basis of your passion for children, your talent for connecting with them, and your willingness to commit yourself to touching children's lives.

Each year, classroom teachers encounter particular learners who stand out from the rest for a variety of reasons—perhaps a learner is struggling with a particular concept in the curriculum, is experiencing difficulty in social interactions, has progressed far beyond the expectations for your particular grade level and is in need of enrichment, or behaves in ways that are not conducive to your classroom learning environment. These learners are like puzzles that teachers try to understand as they strive to make a difference in a particular child's life.

A puzzling child can be a wonderful source for sparking your first wondering. If you are a beginning teacher, this is a common, comfortable, and developmentally appropriate place to develop your inquiry stance toward teaching. If you are a practicing teacher, you may also find that studying a particular student can contribute to and facilitate the child's experience in your classroom and the individualized education plan (IEP) or staffing process within your school. This process also informs your own ability to accommodate individual differences and track student growth. Each year we work with numerous teacher candidates and practicing teachers who use the process of inquiry to gain insights into learners who stand out to them in their classrooms. A few examples follow.

Amy Ruth, an intern in a kindergarten classroom, did not have a difficult time generating a large number of curiosities and wonderings for her first inquiry project. In fact, Amy ended each of her professional journal entries with questions that emerged from her daily practice. As she brainstormed, she realized that many of her wonderings focused on student growth, and she eventually narrowed her inquiry to focus on an English as a Second Language (ESL) learner in her classroom. As you read the following excerpt from Amy's inquiry, note how she describes the process of finding her wondering:

> It was not hard for me to come up with a huge number of curiosities or wonderings that I have within my classroom. As I began to narrow down the wonderings, I began to notice that many of them centered around topics that held things in common, particularly the following areas: peer interactions, peer influence, ESL students, and the kindergarten writing center. Out of the list that I narrowed down, I asked myself, "What is it that really fascinates me?," "What am I passionate about?," and "Why am I a teacher?" The answer to all three of these questions for me is "student growth." It fascinates me to see the enormous growth students have over time. I am passionate about setting up a learning environment that fosters growth. I am a teacher because teaching represents the challenge of finding ways to help a child grow, the excitement in the student growth as it is

taking place, and the joy I feel of seeing that growth has and is taking place within my classroom!

My inquiry project became more apparent as I began to take over at the writing center during language arts time. Since the beginning of the year, I had watched one ESL student's language develop and grow right before my eyes. His forceful nature, strong personality, and undying energy had at times exhausted me, while at the same time it empowered me. He instilled a challenge in me to find ways to facilitate his entrance into our school, our classroom community, and our language. For being a child who came to school knowing very little of the English language, he is extremely outgoing and eager to be accepted by his teachers and his peers.

It was not long after I began working with the students at the writing center that I decided that my inquiry would focus on this ESL student, who I will refer to as Adam. As an intern in a kindergarten classroom, from the beginning of the year I had been amazed by the growth students show in their illustrating and drawing. I am always full of wonder and amazement as children's one-page illustrations develop into seven- or eight-page detailed stories.

The first time that Adam's group came to the writing center, I was blown away to see how he interacted with his peers. Immediately after sitting down with his writing folder, he handed a new sheet of paper to a peer, Kevin, and told him to draw a fish. "Fish!" he said. "Big fish!" I was amazed at the request. The thought that Adam would ask Kevin, a well-known artist in our room, seemed so clever to me. Where would this request lead Adam in his writing? Was this interaction/request going to be typical of Adam at the writing center? Would this help Adam's written language develop, as his spoken language had recently?

Now I had found my initial inquiry wondering: How does peer interaction facilitate Adam's writing at the kindergarten writing center? (Ruth, 1999)

To find her first wondering, Amy began by raising questions as she journaled about her classroom each day. Then, she began listing broad categories of areas that fascinated her—peer interactions, ESL students, the writing process. She found a common theme that connected all of her current fascinations in her teaching—student growth. Finally, an observation of an interaction between two of her learners during a writers' workshop triggered the final focus of her inquiry wondering. This incident provides a fine illustration of what Hubbard and Power (1993) refer to as inquiry resulting from real-world observations. Wonderings also come from dilemmas or felt difficulties. In the next example, note how Quinn Garman encountered a very common dilemma faced by many beginning teachers—she actually began to fear a student who challenged her directions:

Imagine that you are a teacher candidate in a kindergarten room during the third day of your experience. At her request, all of the students join your

mentor teacher on the rug for a story . . . all except one child, "Suzy." After I remind Suzy several times that it is time to stop her project and join the others on the rug, she continues to color using just one more marker, to sprinkle glitter in just one more place, and to put on just one more piece of sequin. Then, instead of quietly joining the group, she decides it would be more exciting to also sprinkle glitter on the worktable, pour glue on the carpet, and use marker wherever there is room on the floor, the table, and even her hands. The more she ignores my reminders, the more frustrated and agitated I become. Finally, with a stern face and voice, I stoop down to Suzy's eye level and give her a choice: Either she can quietly meet Mrs. Brown and the others at the rug or she can have a time-out. Just as those seemingly harmless words spill off the tip of my tongue, Suzy raises her right hand and with all her might, grazes my cheek with a mixture of pure anger and fear while yelling, "No!" Her unexpected reaction immediately stuns my words and freezes me like a popsicle. My numb legs can barely hold my paralyzed body up straight. Unaware of the situation, Mrs. Brown gently reminds Suzy that her place is at the rug. Immediately, Suzy bolts from the scene and finds a cozy spot right in front of the story, as if she had been there from the start. For a few minutes afterward, I can't move or think. I stand in a daze wondering what has just happened. Is this how this innocent five-year-old usually reacts to situations? Or is this just her way of reaching out?

Unfortunately, this was not just an imagined scenario for me, but rather a serious slap in the face. As absurd as this may sound, I actually began to fear Suzy. She was the first person I thought of in the morning and the last person I thought of at night. In fact, I found myself trying to avoid contact with her whenever possible. As horrible as this may sound, I sometimes felt more comfortable working with someone who I knew would not hurt me rather than risk having a confrontation with Suzy. With all of this happening, I knew that I needed to develop a better relationship with Suzy during my student-teaching experience.

During this time of my student teaching, I began attending seminars on teacher inquiry and reading books on teacher research. This research led me to question my own teaching beliefs and practices. This skepticism about my teaching, coupled with Suzy's slap, led me to complete a systematic study of our relationship. Therefore, the purpose of my study was to understand the behavioral patterns of one student, Suzy, in relation to my behavior as the teacher.

The following research question guided my inquiry: "How do the structure and management of my classroom encourage or deter a particular student's behavior?" (Garman, 1997, pp. 1–4)

Like Amy's, Quinn's question was triggered by a specific incident in the classroom that led her to focus on a particular child. In contrast to Amy's critical incident, where she observed two learners interacting with each other,

Quinn's critical incident was characterized by her own interaction with a learner. Out of this particular interaction a dilemma developed—a desire to avoid a five-year-old whom she was responsible for teaching each day. Her wondering or felt difficulty was born out of the combination of her own interaction with a learner, subsequent reflection on that interaction, and desire to confront the dilemma she faced.

While you, like Amy and Quinn, note observations of particular learners and interact with individual learners hundreds of times each teaching day, sometimes a wondering about a particular child is not spawned by one observation or critical incident but emerges from what you notice and are learning about a particular child over time. In the following example, note how Jenn Thulin's (1999) interest in a particular first-grade child emerged after many months of discussion and observation between Jenn and her mentor teacher:

> Meg is an imaginative child who stood out to my mentor teacher and me from the beginning of the year when she told us her stories of castles, princesses, and talking dogs. She told these stories with the enthusiasm and excitement of an actress who was on stage. We knew that she was very creative, but did not know the extent of her talent until she sang to us one day. Meg sang with the most incredible voice and perfect pitch. She not only enjoyed singing songs but also enjoyed making up her own songs.
>
> While it was clear from the first day of school that Meg was a very talented and creative young girl, she also stood out in the classroom because of extreme language difficulties. At first, we noticed problems with her speech. Many of her syllables were reversed and she would often substitute incorrect sounds. For example, she would say "bery" instead of "very." She also had a hard time processing auditory information such as questions and directions. From the beginning of the year Meg struggled with all subjects, but was especially discouraged and falling behind in reading.
>
> In contrast to most of her peers, she did not know many sounds and confused many letters of the alphabet. We struggled for many months to help her learn the alphabet and sounds. She would make progress, but it was inconsistent. Just because Meg knew a sound one day did not automatically guarantee she would know it the next day. To help her achieve consistency, it was necessary to give Meg a great deal of individual instruction.
>
> Therefore, Meg was recommended as a candidate for instructional support, which led to observation and testing by a team of educators. Through this process, we discovered that Meg had very poor auditory processing skills and auditory memory. It was very hard for her to comprehend and remember things that were told to her orally. Meg scored extremely low on auditory processing, but she scored exceptionally high in visual processing. If Meg saw a picture or a visual representation it was easy for her to understand. Because of the processing and memory difficulties, reading was a challenge for Meg. If you read Meg a passage from a book, she may not