
Preface

I remember with uncanny clarity my first year as a K–8 mathematics staff developer, responsible for the ongoing, job-embedded professional development of all K–8 mathematics teachers in a working-class public school district in New England. I was the only person in that position in the district, so I had to work hard to carve out my own professional development opportunities, find tools of reflection, and connect to others who were undertaking similar work with teachers. In many ways, I felt overwhelmed; at the same time, I felt invigorated and passionate about my work in a way I had never felt before.

I needed to define my role and work for myself. I chose the focus that felt not only most powerful but also (selfishly) of greatest interest to me. That is, I chose to focus on what was happening in mathematics classrooms across the district, recording student discussions about mathematics during those classroom visits, meeting with teachers to share what I heard their students saying, and discussing with teachers the implications for instruction and student learning. As I spoke with other professionals, I realized more and more that the work I was doing was coming to be known as “coaching” in the field of mathematics education. I had no guidebook, no road map for this coaching work; like so many others at the time and today, I was figuring it out as I went along.

Writing has always been a vehicle of reflection for me, and I soon found myself spending endless hours at night journaling about my experiences in my new position. The journal became a tool for my own professional development as a coach. Over time, I revisited my journal entries and reflected on them. What aspect of the coaching experience that I recorded did I struggle with the most? How did my work connect from one day to the next, from one teacher to the next? What themes were emerging in my work? I then shaped these journal entries into a set of coaching cases. I held onto those first cases and continued to write more with each year of coaching I undertook. Those cases and my journal writing became the seeds of this book.

The chapters of this book offer a variety of research connections, additional readings, templates to weave into practice, and other practical coaching tools that I have found effective, but each of the chapters is grounded in a coaching case from my journal over the past nine years in elementary math classrooms. These cases are not meant to serve as “recipes” for coaching; rather, they can allow all of us to “freeze” a moment of coaching, to unpack and examine that moment, and so discuss elements of the mathematics, student learning, and coaching moves and interactions that seem critical. Cases allow for this thoughtful, reflective examination of coaching so that we are then better able to make effective coaching decisions when doing the work in our respective schools and districts.

This book is intended to serve as a resource for those who support the mathematics professional development of teachers. This audience includes math coaches, math specialists, curriculum coordinators, staff developers, teacher leaders, and administrators. The book is grounded in mathematical content and experiences from the elementary level (K–5), but educators working in similar roles at the secondary level or in disciplines other than mathematics will also find the book useful as a professional text because the core elements of coaching that are developed here transcend levels and disciplines. University instructors will find this text relevant and powerful for use in programs and courses designed to support mathematics leaders and coaches in elementary schools.

The first section of this book presents an overview and broad images of the coach’s work in elementary mathematics classrooms. Chapter 1 shares one snapshot of a coaching encounter in a classroom. This encounter and a review of coaching models that can be found in research and professional literature are used to articulate critical elements of coaching that will be revisited and examined in greater depth throughout the book. Chapter 2 discusses the behind-the-scenes organization and planning that can set the stage for successful entry into coaching with a group of teachers and help the coach get started. Chapter 3 describes a full coaching cycle, from the prelesson planning to the classroom visit to the postlesson debriefing meeting. Through the example presented in the case, strategies for navigating each segment of this standard coaching cycle are offered and highlighted.

The second section of this book then discusses tools for mathematics coaching; each chapter presents a specific tool and uses a case to illustrate and examine that tool. Chapter 4 discusses how curriculum resources themselves and the interaction between teacher, student, and curriculum can provide artifacts of practice that are valuable in coaching work. Chapter 5 addresses questioning as a tool for coaching; it describes several different types of questions that a coach may pose and the purpose of each. Chapter 6 notes the need at times to be explicit with a teacher in order to move practice forward. Chapter 7 discusses ways in which data can be harnessed both as a tool and leverage point for the coach’s work with teachers.

The third section of the book presents coaching dilemmas, situations that may emerge and often prove challenging for the coach to navigate. In Chapter 8, situations are presented in which the coach must decide how to address teachers' classroom errors. Chapter 9 considers the role of demonstration or model lessons in the coach's work and how to ensure that such lessons are effective from the perspective of teacher professional growth. In Chapter 10, the point is made that the coach is a learner; how then does this reality conflict with staff notions of the coach as an "expert"?

The final section of this book calls attention to the need to provide professional development opportunities for the coach. Vehicles and structures to support the coach's growth are described in Chapter 11. Across all sections of the book, chapters conclude with focus questions that can serve as springboards for reflection and discussions with others. In all of the chapters, I strive to make my reflections on my work transparent, modeling the power of this reflective stance for continued growth.

Furthermore, a consistent structure of subheadings has been used for each case presented in a chapter to guide the reader. Each case is launched with the subheading *Setting the Stage* to introduce the context of the case—the grade level, relevant information regarding the teacher and coach relationship, etc. The case then begins to unfold in terms of the actions and dialogue in the classroom or between the coach and teacher. Lucy West and Fritz Staub (2003) refer to "coaching moves" in their work, and so the subheading *Making the Move* is used to note the moment of coach decision making in each case; this section of the case describes the decision-making process and the move that is made by the coach in the moment. Each case also includes a *Taking a Closer Look* discussion to analyze for the reader the decision-making process that was undertaken by the coach in the case, the pros and cons of the decision, and the relevant connections to research and models of coaching.

I am excited to share my coaching experiences and learning with a larger audience, but I am also cautious. I am sharing here the details, the struggles, and the successes of the work that I have undertaken with teachers and children over the past nine years across three different states. I would ask that readers respect the sensitive nature of the cases in this book and the courage of coach, teachers, and children as together they navigate the teaching and learning of mathematics.

I encourage you to use this book not merely as professional reading but as a tool for your own professional growth. Keep a journal close to you, jot down your thoughts and reflections, and share these with others. Use the tools that are provided and be explicit with others that you are studying all of this. That is how coaching will continue to evolve and grow for all of us.