

Preface

Although there is no standard form of instructional coaching and coaching applications vary widely, there is one certainty in coaching: The impact a mathematics leader makes is tightly connected to ways they approach each coaching or leadership interaction (Ippolito, 2010). When we think of mathematics leadership positions, we include the many part- and full-time roles one can take as they advocate for research-based practice in K–12 settings:

- A classroom teacher modeling a numeracy routine for other teachers
- An interventionist working primarily with students
- A coach or specialist designing school-wide professional development
- A team lead or department chair facilitating professional learning communities
- A district supervisor coordinating the development and implementation of mathematics programs

Though the roles and responsibilities of each of these individuals is varied, they have a common purpose. Each individual is working to make positive instructional changes that increase opportunities for rich mathematical thinking for all students. Throughout the book, we refer broadly to these individuals as **mathematics leaders**.

Recognizing the instructional and situational knowledge mathematics leaders possess, *Principles to Actions: Ensuring Mathematical Success for All* (National Council of Teachers of Mathematics [NCTM], 2014) calls on these individuals to help make the mathematical success of every student a nonnegotiable priority. As a community of mathematics leaders, we are working toward answering this call and promoting a vision of equitable mathematics instruction that recognizes the potential of each and every student.

However, there are times that we find ourselves wondering about our actions and their influence. It is not uncommon for mathematics leaders to reactively respond to in-the-moment or “on-the-fly” requests at a copier, during bus duty or while walking between locations in their school. It is also not uncommon in these instances for a mathematics leader to immediately respond to these requests as they work to meet the needs of all their school stakeholders. We recognize that this is an important aspect that will not necessarily change: Putting out fires. Supporting administrators, teachers, and parents. Celebrating and observing classroom teachers’ successes and challenges. However, this part of our coaching and

leadership practice, the *reactive* part, can leave us feeling unprepared and pulled in too many directions. At times, the reactive part can also make us feel as if we are moving away from our own coaching and leadership goals.

So, how do we, as mathematics leaders, develop more *proactive* practice? How do we decide upon—and enact—our goals as mathematics leaders? When we have a more *proactive* practice, we can focus our energy on digging deep under the surface of coaching and leadership interactions in ways that have the potential to increase equitable and effective mathematics learning environments. In this book, we present the Proactive Coaching Framework (PCF), which was designed to do just this.

The PCF was born from our own experiences as we faced many challenges identified in current literature. While coaching, we recognized the need for mathematics leaders to better understand productive ways to work with teachers and support school-wide change since so many are “appointed and/or anointed” (Fennell, 2017, p. 9). Throughout this book, we use cases to illustrate the broad influence an individual can have on instructional practices and the overall teaching culture within a school. We also discuss the many challenges faced by mathematics leaders and the variety of coaching approaches one might take.

On the surface, the PCF might look like a simple set of planning questions (see Appendix A). However, the deeper you reflect on these questions, the more you will uncover. In our own work as mathematics leaders, we have found that intentionally planning with the Framework has led to both growth in coaching and leadership practices, and, more important, an increased awareness of how a coach or leader can advocate for and influence the implementation of rich and rigorous mathematics instruction. This is especially critical as funding for mathematics coaching positions is not always guaranteed, and there are no federal mandates that position a mathematics leader in every school. Furthermore, as mathematics leaders, we are often left wondering about how to develop our coaching or leadership plan and how to decide if our interactions have been effective.

The PCF takes what we know works for teacher learning and applies these foundational ideas to help mathematics leaders think carefully to plan for effective coaching interactions. For teaching, we know the quality of lesson preparation affects lesson effectiveness (Brahier, 2000). Likewise, the quality of coaching preparation affects the effectiveness of any coaching or leadership interaction. These interactions are often more than a coaching cycle or professional development session; they can include a conversation with a principal, rehearsing a number talk with a teacher, or implementing a Math Lab (Kazemi et al., 2018). In each of these interactions, a mathematics leader makes a myriad of decisions. They must decide on the audience, topic, content resources, teacher learning goals, and the overall design and delivery of the professional learning experience. Good coaching interactions are designed to blend the leadership practices of mathematics leaders with

the teaching practices of classroom teachers. Careful investigation into the what and how of instruction *before* the lesson supersedes “on-the-fly” decision-making *during* a lesson (Stigler & Hiebert, 2009).

The PCF addresses this intentional planning to guide mathematics leaders in the complex decision-making process of implementing professional learning experiences. The Framework serves as a planning and reflection tool that supports change agents in moving toward the broader goal of improved instruction through the use of core teaching and coaching practices. It challenges people, either individually or collectively, to think critically about their practice and act with intentionality to support effective mathematics teaching in a deliberate and proactive way.

References

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