



THE **eCoaching** **CONTINUUM**

FOR EDUCATORS

USING TECHNOLOGY TO ENRICH PROFESSIONAL
DEVELOPMENT AND IMPROVE STUDENT OUTCOMES



MARCIA ROCK

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Introduction

Connected Coaching: Making Sense of Professional Development on a Continuum

At its best, the future of staff development will be one of integrity, equity, innovation, and interdependence. Otherwise, domination, dependency, and divisiveness are all that beckon. The choices are vital—and critical, committed, courageous staff developers must strive to make the right ones. —Andy Hargreaves (2007, p. 38)

How many times have you sat through a training or a workshop, rolled your eyes, folded your arms across your chest, heaved a heavy sigh, checked e-mail on your mobile phone, and muttered silently to yourself, “This is a complete waste of my time. There has to be a better way”? If so, this book is for you and your colleagues, many of whom have experienced and thought the same.

A Better Way: What We Know About Good Professional Development

Recognizing the need to reverse the time lost in ineffective professional development, in what follows I describe what’s known about effective professional development and how to put it into practice in a way that maximizes teacher and student growth. In other words, not all is doom and gloom. There is good news about professional development that can help us make sense of how to go about it effectively and efficiently.

Evidence of Effectiveness

Although estimates vary regarding the amount of time needed for effective professional development, we can turn to the literature for some guidance. In 2007, Yoon and colleagues reported that when teachers participated in a minimum of 49 hours of high-quality professional development over the course of a year, their students evidenced achievement gains of up to 21 percentile points. By comparison, Guskey and Yoon (2009) concluded that positive effects were achieved through 30 or more contact hours of professional development.

When it comes to the features of effective professional development, there is also some variation. Joyce and Showers (2002) found that when professional development included support for implementation, 95 percent of new knowledge transferred to classroom practice. Generally, support for implementation consists of coaching and collaboration (Gulamhussein, 2013). More specifically, Fixsen, Naoom, Blasé, Friedman, and Wallace (2005) pointed out that the results of Joyce and Showers's meta-analysis confirmed that "effective training workshops consisted of presenting information (knowledge), providing demonstrations (live or taped) of the important aspects of the practice or program, and assuring opportunities to practice key skills in the training setting (behavioral rehearsal)" (p. 41). More recently, drawing on extant literature, Desimone (2009) identified five features of effective professional development, which included content focus (studying subject matter), active learning (observing, reviewing, discussing), coherence (demonstrating consistency with knowledge, beliefs, policies, and reforms), duration (engaging in 20 or more hours of contact time spread over a semester), and collective participation (interacting and conversing with colleagues).

Evidence of Benefit

Not surprisingly, more encouraging outcomes are achieved through professional development characterized by comprehensive, sustained, and intensive approaches, such as those described by Desimone (2009) and Joyce and Showers (2002). For example, researchers have found preliminary evidence suggesting effective professional development is a key factor in school improvement (Borko & Putnam, 1996; Darling-Hammond, 1993), effective policy and practice (Desimone, Smith, & Frisvold, 2007), and student achievement (Desimone, Smith, Hayes, & Frisvold, 2005; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Recognizing Persistent and Unresolved Challenges

The good news mentioned previously provides a common understanding of what good professional development looks like. Developing shared knowledge about effective professional development is, no doubt, the first step in creating

a pathway for lasting change. Still, in clearing the path for others, we must also recognize the many pitfalls plaguing contemporary professional development. Doing so helps us resist the traps inherent in “sit and get” professional development, which, although ineffective and often unwelcome, has become the default, in part because it has been the way we have always done it.

Continuing education, more commonly referred to as staff development or professional development, plays a vital role in improving one’s performance across the career span. Although definitions of professional development have varied over time, it is currently defined as “a comprehensive, sustained, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement” (Educational Testing Service, 2011, p. 36). In today’s schools, professional development occurs informally through hallway discussions between teachers, which are commonplace, often taking place on the fly, or formally via day or weeklong training sessions or workshops, which are also popular but are typically scheduled in advance (Desimone, 2009). Unfortunately, most present-day professional development approaches, whether formal or informal, fall short in reflecting the spirit and the letter of the definition. The stark reality is that contemporary approaches are, more often than not, characterized by stand and deliver, random acts that are costly, piecemeal, fragmented, and ineffective (Desimone, 2009; Gulamhussein, 2013; Hargreaves, 2007), often resulting in the brief scenario offered at the beginning of this Introduction. More than two decades ago, Sykes (1996) declared professional development “the most serious unsolved problem for policy and practice in American education today” (p. 465). Sadly, little has changed since then.

Evidence of Fragmentation

Despite the need for professional development that is “comprehensive, sustained, and intensive,” the vast majority of teachers (i.e., 90 percent) take part in traditional, stand-alone workshops annually (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). Birman, Desimone, Porter, and Garet (2000) also reported that only slightly over half of the teachers in their study participated in professional development activities that emphasized content. Even more concerning, however, was their finding that fewer than 20 percent of their teacher participants, and as few as 5 percent, were coached or observed.

Evidence of Ineffectiveness

Given the absence of comprehensive, sustained, and intensive approaches to contemporary professional development, there is reason to suspect that not much of the content transfers to classroom practice. In fact, Joyce and Showers (2002) confirmed that traditional approaches to professional development that did

not include support for classroom application, such as coaching or observation, yielded less than 10 percent transfer of the newly learned knowledge and skill. More recently, Yoon and colleagues (2007) reported that when teachers participated in professional development programs lasting between 5 and 14 hours, there was no statistically significant effect on their students' achievement. And through extensive analysis of data secured through school administrative records in Florida, Harris and Sass (2011) concluded that professional development did not result in increased student achievement.

Evidence of Cost

And then there are cost considerations. Birman and colleagues (2000) estimated the cost of effective professional development at \$512 per teacher—a figure that was twice what the typical district spent on it for each teacher in 2000. In a 2007 update, Birman and colleagues reported the federal government spent approximately \$1.5 billion in professional development for teachers. Unfortunately, despite federal, state, and local investments in professional development, the return on investment has yielded little benefit, particularly in terms of lasting changes in teacher practice or improvements in student outcomes.

A Blueprint for Effective Professional Development: The Coaching Continuum

Drawing on Joyce and Showers's seminal article published in *Educational Leadership* in 1982, titled "The Coaching of Teaching," I offer a blueprint for professional development true to the definition. By that I mean professional development that reflects a "comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement," which I call the coaching continuum.

Why bother with a continuum? First and foremost, the coaching continuum reflects an authentic, job-embedded approach to professional development. Croft, Coggshall, Dolan, Powers, and Killion (2010) defined job-embedded professional development (JEPD) as "teacher learning that is grounded in day-to-day teaching practice and is designed to enhance teachers' content-specific instructional practices with the intent of improving student learning" (p. 2). As the name implies, the coaching continuum is *not* based on random acts or piecemeal approaches to professional development. Instead, the coaching continuum is formed by connecting and coordinating a series of components identified by Joyce and Showers (1982)

more than 30 years ago—the study of theory and practice, the observation of theory and practice, one-on-one coaching, and group coaching—all of which are carried out within the context of everyday teaching and learning. The coaching continuum is illustrated in Figure 1.1.

Study Theory and Practice

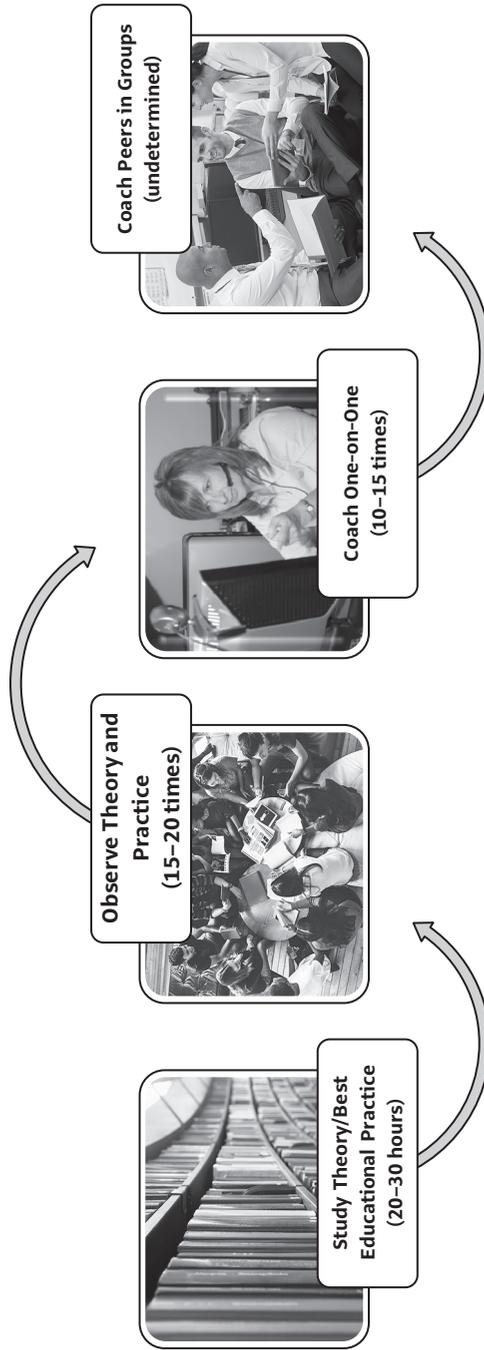
The first component in the coaching continuum involves the study of theory and practice. Education professionals study theory and practice intentionally and systematically to build their knowledge of specific content or particular pedagogy. In short, one cannot use what one does not know. Before engaging in the study of theory and practice, teachers and other school professionals should ask themselves the following guiding questions:

- What theory and practice should we study?
- How do we know we have identified the most important theory and practice for study?
- What do we need to know about the theory and practice before carrying it out in the classroom?
- How will we go about studying the theory and practice?
- How will we demonstrate understanding of our newly acquired knowledge about the theory and practice?

School professionals should base their responses to the first and second questions on data obtained, in part, through needs assessment at the district, building, grade, or teacher or classroom level. For example, after reviewing goals included in a school improvement plan, teachers and other school professionals might choose to study questioning as a means to enhance student engagement and to improve K–12 student learning.

When answering the third and fourth questions, teachers and other school professionals should consider principles of instructional design (Dick, Carey, & Carey, 2005) and adult learning theory (Knowles, 1984). Continuing with the questioning example, for instance, differing case-based examples should be included because they provide context, which is essential not only to building one's knowledge but also to fostering transfer (Bransford, Brown, & Cocking, 2000; Brown, Roediger, & McDaniel, 2014). How much time should teachers and other school professionals spend studying the theory and practice they wish to improve? Joyce and Showers (1982) recommended 20–30 hours and suggested adding more time when studying complex topics. With this rule of thumb in mind, teachers and other school professionals might schedule regular times for book study using ASCD's *Questioning for Classroom Discussion* (Walsh & Sattes, 2015).

FIGURE I.1 THE COACHING CONTINUUM



Adapted from Joyce and Showers, 1982.

Responding to the fifth question requires that teachers and other school professionals determine how they will assess their understanding of the newly learned content. For instance, they could opt for oral or written quizzes (Brown et al., 2014). Remember, at this point, the focus is on building one's new knowledge. Consequently, assessment of understanding should align with knowledge rather than performance. Concerned about authenticity with this kind of assessment? No worries. Performance-based assessments of competence are included in the one-on-one and peer coaching components of the continuum.

Observe Theory and Practice

The second component of the coaching continuum centers on observation. Observation aids the transfer of new knowledge to classroom practice. Consider the questioning example. In conjunction with a study of *Questioning for Classroom Discussion* (Walsh & Sattes, 2015), observation of a variety of professionals using questioning effectively in different classrooms strengthens teachers' newly formed knowledge of effective questioning and improves the likelihood they will use it. How often does observation need to take place? Joyce and Showers (1982) recommended 15–20 times, which does not necessarily equate to 15–20 hours. Observations can be carried out effectively and efficiently using small increments of time (e.g., 10–15 minutes). Although it is natural to skip this component in the coaching continuum because of time constraints, overcoming this temptation is vital. Without models of effective classroom practice, teachers and other school professionals are unlikely to succeed in applying what they have learned through the study of theory and practice.

Coach One-on-One

The third component in the coaching continuum is one-on-one coaching. The goal in this component is to aid in the transfer of newly learned knowledge by providing teachers and other school professionals with opportunities to deliberately practice its use with feedback. Returning to the questioning example, teachers would receive coaching on their use of questioning during classroom instruction. Joyce and Showers's (2002) seminal research on coaching confirms its value in the continuum. They found that traditional techniques, such as demonstration and practice, had an effect size of 0.0 on transfer of new knowledge. However, when coaching was added, the effect size increased to 1.42. More recently, Knight (2007) reported that teachers who received coaching were four times more likely to carry out newly learned skills than those who did not. Joyce and Showers estimated that 10–15 one-on-one coaching sessions are needed. As is the case with observations, coaching sessions can be carried out using small increments of time effectively. For

instance, a 20- to 30-minute coaching session can be at least as effective as a 60- to 90-minute session.

Coach in Groups

The fourth component in the coaching continuum is group coaching. The purpose of group coaching is to create infrastructure and build capacity that promotes accountability and fosters sustainability. In this way, group coaching brings educators together to identify problems of professional practice and to solve them collaboratively (<https://www.ccl.org/leadership-solutions/coaching-services/>). Two common approaches to group coaching are critical friends groups (CFGs; Bambino, 2002) and grand rounds (City, 2011), also referred to as instructional rounds. Both use established protocols that require some training prior to implementation. In terms of the questioning example, teachers would observe and coach one another on problems of practice specific to questioning, using CFGs or instructional rounds protocols. Although Joyce and Showers (1982) did not specify how much time is needed for group coaching, CFGs and instructional rounds are most effective when scheduled regularly and carried out consistently (e.g., weekly, biweekly, monthly).

Figure I.2 presents an example of how teachers and other school professionals would use the coaching continuum not only to improve teachers’ questioning tactics in the classroom but also to enhance their students’ engagement and learning.

The four components of the coaching continuum mentioned also reflect the five features of effective professional development described by Desimone

Figure I.2
The Coaching Continuum–Questioning Example

Coaching Continuum			
Study Theory and Practice (20–30 hours)	Observe Theory and Practice (15–20 times)	Coach One-on-One (10–15 times)	Coach Peers in Groups (undetermined)
Engage in book study of effective questioning tactics, using ASCD’s <i>Questioning for Classroom Discussion</i> (Walsh & Sattes, 2015).	Take turns demonstrating and observing effective questioning for classroom discussion.	External Coaching: Provide one-on-one coaching in the classroom, during instruction, to foster a teacher’s use of effective questioning. Self-Coaching: Record teacher questioning while teaching using tally marks or audio/video recording.	Use traditional face-to-face protocols to conduct critical friends groups or instructional grand rounds with peers to investigate problems of practice specific to questioning for classroom discussion.
←		→	

(2009)—content focus, active learning, coherence, duration, and collective participation. A focus on content is found in the study of theory and practice, while active learning is embedded in all four components. Coherence and duration are reflected across the continuum, especially when connections between the components are structured intentionally and carried out over time. Collective participation, by contrast, is typically considered a hallmark of group coaching.

Support for Professional Development as a Continuum

If we are to engage in professional development that is economical, connected, and effective, then we must begin to think differently about it. Instead of viewing professional development as stand-alone random acts, it must be viewed as a series of connected, coordinated components on a continuum. Although numerous books are available on the topic of professional development, the content included generally reflects the former, not the latter. That is, the content is often dedicated to piecemeal tactics, such as coaching, professional learning communities (PLCs), or personalized learning networks (PLNs), which is, without question, well intended. Unfortunately, these approaches only add fuel to the proverbial fire in professional development. For example, coaching without in-depth study of theory and practice inadvertently promotes teacher dependence on the coach. Similarly, the absence of group or peer coaching paves the way for changes in practice that are not sustainable over time. And when teachers focus exclusively on the study of theory and practice, through book study, for instance, the outcome yields insufficient transfer to classroom practice.

Recognizing that some readers will be critical of and skeptical about the amount of time needed for the coaching continuum, I offer the following considerations. First, the continuum should be carried out, to the greatest extent possible, as an “add-in” approach, not an “add-on” appendage. By that I mean the four components should be embedded in the day-to-day work of teaching and learning through regularly scheduled opportunities for studying, observing, and coaching that are built into the instructional day, not added on at the end. Stay tuned for more about how to do this in the chapters that follow. Second, the amount of time recommended for each component of the continuum is based on estimates, rather than hard science, and should be monitored and adjusted according to the results. Third, differentiation is also possible, which can save time. For example, a pre-test could be made available prior to the study of theory and practice. If a teacher passes the pre-test, then she has demonstrated requisite knowledge and can spend her time more effectively and efficiently participating in the transfer components of the continuum (e.g., one-on-one

coaching, group coaching). Taken together, these considerations should ease most feasibility concerns.

Support for a Technology-Enabled Professional Development Continuum

No doubt, technology can be a blessing or a curse. This truism applies to every facet of our 21st century lives; professional development is no exception. Choosing to focus on the former, while giving a realistic nod to the latter, I offer six compelling reasons why technology should serve as the foundation for the coaching continuum.

First, we live and work in the digital age, wherein technology use is aimed at increasing human efficiency and effectiveness. Our approaches to professional development should reflect that. Moreover, there is emerging evidence that we may be able to leverage technology-enabled professional development to work smarter and better. For instance, Allen, Pianta, Gregory, Mikami, and Lun (2011) conducted a randomized control trial of web-based coaching (i.e., My Teaching Partner–Secondary) aimed at improving teacher-student interactions in the classroom with 78 secondary school teachers and 2,237 students. They reported achievement test score gains equivalent to the 50th–59th percentile. Also, they found the improvements appeared to be mediated by changes in teacher-student interaction, which were targeted through the web-based professional development. Moreover, based on the results of a recent literature review, Blitz (2013) reported that teachers who participated in online PLCs outperformed those who participated in face-to-face PLCs in self-reflection and use of effective instruction. Why teachers engaged in online PLCs outperformed those who participated in face-to-face delivery seems to be attributed, in part, to the flexibility afforded by online learning. For instance, based on facilitator interview data, Harlen and Doubler (2004) concluded that “real-time boundaries” did not exist in the online PLC environment (p. 1263). As such, there was more time and space for mediated learning. In their words, “Before responding, the facilitator had time to assess the learning, consider, and plan carefully the best way to further the learning” (p. 1263).

Second, each professional development component included in the continuum can be technology enabled in many varied and unique ways. The options range from low to high tech, while the costs reflect various price points. For example, when studying theory and practice, teachers and school professionals can use Twitter chats, free of charge, to engage in professional dialogue with others from around the globe, regarding the specific topic at hand (e.g., #questioningforclassroomdiscussion). Observing one another using questioning tactics during

classroom discussion may be achieved using FaceTime through iPads or Skype via a desktop computer, both of which can be downloaded at no cost. Bluetooth earpieces for discreet, live, one-on-one, in-ear coaching (also referred to as bug-in-ear [BIE] coaching) of questioning during classroom discussion may be purchased for under \$100, and online videoconferencing for group coaching of the same with peers may also be carried out at no expense using Google Hangouts or ooVoo. These are only a few examples. Information included in the chapters that follow, as well as in the Appendix, offers more detailed discussion of technology options.

Third, many school districts in the United States face unprecedented fiscal constraints. Using technology to support the coaching continuum only makes sense, especially when it comes to saving time and money. For example, e-books for studying theory and practice can be downloaded immediately for less money. Also, teachers and other school professionals can observe the study of theory and practice by viewing video clips for free online via the Teaching Channel without leaving their classrooms. In terms of one-on-one coaching, the time and money a coach spends traveling from one school to another may be reduced considerably through online visits. Finally, group coaching with peers to explore problems of practice may be carried out using webcams and Google Hangouts, which also eliminates coverage and release-time costs.

Fourth, several of the low- and high-tech options used to support the coaching continuum offer teachers and other school professionals access to “just-in-time support.” In other words, teachers and other school professionals can use the technology to access on-demand professional development that supports and connects the components. For instance, a teacher might choose to Skype his coach during a particularly problematic lesson wherein questioning during classroom instruction is not going as planned. This authentic, real-time coaching through a hot spot may prove invaluable in overcoming thorny transfer problems that often erupt unexpectedly, but rarely, during scheduled coaching sessions.

Fifth, technology allows each component in the continuum to be personalized and customized to meet the needs of teachers, administrators, and other professional development team members. Today’s frontline education professionals harbor a wide array of technology know-how and skill. Some are Luddites; others are digital natives. The remainder are somewhere in between. The technology that teachers and other school professionals choose to support and connect the continuum components can be geared to their comfort level. For instance, during one-on-one coaching, more tech-savvy teachers may opt for live, in-ear coaching using Bluetooth and online videoconferencing. Others with less technology know-how may decide to begin by using an iPad or a webcam to capture a lesson electronically and then debrief on it later with their coach.

Sixth, technology-enabled coaching on a continuum promotes self-coaching. As mentioned previously, even when traditional professional development includes coaching, it is typically time, labor, and cost prohibitive—often exceeding the resources and capabilities of many school districts. Harnessing the power of technology overcomes these obstacles, strategically and systematically, by transferring teachers' and other school professionals' reliance on external coaching to self-coaching, which is the goal of professional development. For example, applications (i.e., apps) for mobile devices, such as TeachFX (<https://teachfx.com>), allow teachers and other school professionals to collect data and receive automated feedback on selected teaching and learning goals. Consider, again, questioning. Rather than relying continuously on an external coach, by downloading and using the TeachFX app, teachers and other school professionals can capture real-time classroom data on teacher questioning and student response *and* receive immediate feedback on both through automated visualizations (i.e., charts, graphs, percentages). They can then use these data, in part, to determine what further study is needed, when additional observations are in order, why additional one-on-one, real-time coaching is requested, and how group coaching can further build individual and collective capacity—all of which are centered on questioning and student engagement.

The eCoaching Continuum

Based on the same four components described previously in the coaching continuum section, I refer to the technology-enabled variation as the eCoaching continuum. The difference is that in the eCoaching continuum, the design and delivery of each component is enhanced through technology. That said, the eCoaching continuum is flexible and can also be designed and carried out using a hybrid approach. Examples of these two options, based again on questioning, are presented in Figures I.3 and I.4.

Distinguishing Features of the eCoaching Continuum

Although the eCoaching continuum is based on components described more than three decades ago by Joyce and Showers (1982), there are important features that distinguish the 21st century variation from its predecessor.

Teaching and learning focused. I expand the focus of coaching to encompass teaching *and* learning. This means that when professional development is approached through the eCoaching continuum, the aim is not only to support the ongoing development of teachers' classroom practices but also to enhance the educational outcomes achieved by their K–12 students. By contrast, Joyce and

Figure I.3

The eCoaching Continuum—Questioning Example (Fully Technology Enabled)

eCoaching Continuum			
Study Theory and Practice (20–30 hours)	Observe Theory and Practice (15–20 times)	Coach One-on-One (10–15 times)	Coach Peers in Groups (undetermined)
<p>Engage in e-book study of effective questioning tactics, using ASCD's electronic version of <i>Questioning for Classroom Discussion</i> (Walsh & Sattes, 2015)</p> <p>and</p> <p>Download study guide for <i>Questioning for Classroom Discussion</i> from the ASCD website (http://www.ascd.org/publications/books/115012/chapters/An-ASCD-Study-Guide-for-Questioning-for-Classroom-Discussion@-Purposeful-Speaking,-Engaged-Listening,-Deep-Thinking.aspx).</p>	<p>Use Teaching Channel QR codes provided in Walsh and Sattes (2015) to view videos illustrating effective questioning and classroom discussion.</p>	<p>External Coach: Use online videoconferencing to conduct critical friends groups or instructional grand rounds with colleagues to investigate problems of practice specific to questioning for classroom discussion.</p> <p>Self-Coach: Use mobile apps, such as TeachFX, to capture and display automated feedback on teacher questioning and student responding.</p>	<p>Use online videoconferencing and Bluetooth technologies to provide discreet, one-on-one coaching during classroom instruction to foster a teacher's use of questioning for classroom instruction.</p>
←		→	

Showers (1982) focused primarily on the former. Broadening the focus to include student learning supports ongoing emphasis on continuous educational improvement and accountability.

Technology enabled. I enhance the power and the connectedness of the original four components through technology. Recent advances and innovations in desktop and mobile technologies provide opportunities for designing and delivering deeper professional development with more teachers. We are now able to remotely study theory and practice, observe theory and practice, engage in one-on-one coaching, and participate in group coaching with peers in ways that were not possible previously. Leveraging 21st century technologies enables frontline practitioners to carry out and to connect the components of the continuum with greater flexibility, effectiveness, and efficiency.

Data informed. In shifting the focus of the continuum from teaching to teaching and learning, I bring teacher and student data, assessment, and evaluation to the forefront. Historically, teacher assessment and evaluation have been conducted separately from professional development. Because of an increased emphasis on

Figure I.4

The eCoaching Continuum–Questioning Example (Hybrid Variation)

eCoaching Continuum with Some Technology-Enabled Features			
Study Theory and Practice (20–30 hours)	Observe Theory and Practice (15–20 times)	Coach One-on-One (10–15 times)	Coach Peers in Groups (undetermined)
Engage in book study of effective questioning tactics, using ASCD's <i>Questioning for Classroom Discussion</i> (Walsh & Sattes, 2015) and Download study guide for <i>Questioning for Classroom Discussion</i> from the ASCD website (http://www.ascd.org/publications/books/115012/chapters/An-ASCD-Study-Guide-for-Questioning-for-Classroom-Discussion@-Purposeful-Speaking,-Engaged-Listening,-Deep-Thinking.aspx).	Electronically capture, upload, and share video files demonstrating effective questioning during classroom discussion or Take turns demonstrating and observing effective questioning for classroom discussion.	<i>External Coach:</i> Electronically capture and upload video files illustrating the use of a teacher's questioning tactics during classroom discussion, then debrief face-to-face with a coach at a later date. <i>Self-Coach:</i> Use mobile apps, such as TeachFX, to capture and display automated feedback on teacher questioning and student response and either share with the external coach during a traditional face-to-face coaching session or share with peers during group coaching to update professional development goals related to teacher questioning.	Electronically capture and upload videos illustrating problems of practice to a secure cloud-based storage platform, then debrief face-to-face with colleagues using critical friends groups or instructional grand rounds protocols to solve issues related to questioning for classroom discussion.
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continuous educational improvement and accountability, the role of teacher assessment and evaluation in professional development must be reconsidered. Using the eCoaching continuum, we can craft and carry out formative and summative assessments, based not only on knowledge but also on performance, that can be used to inform teacher assessment and evaluation of impact in authentic and meaningful ways.

Research based. I base the blueprint for the eCoaching continuum on the science of learning and professional development. Joyce and Showers proposed the four components of professional development in 1982. Since then, we have learned a great deal. The eCoaching continuum reflects that. For example, taken together and viewed interdependently, the time teachers and other school professionals spend immersed in the four components of the eCoaching continuum constitute the recommended 30–49 hours noted previously.

Theoretically grounded. I establish the theoretical foundation for the eCoaching continuum on connectivism, a relatively recent epistemological and ontological

perspective on teaching and learning. Connectivism is one of the most widely accepted learning theories for the digital age (Siemens, 2004). In many ways, connectivism is the integration of behaviorism, cognitivism, and constructivism. This too is reflected in the eCoaching continuum, with cognitivism undergirding the study and observation components, behaviorism supporting the one-on-one coaching component, and constructivism guiding the group coaching component. Thus, connectivism supports teaching (knowledge, modeling, and demonstration) and learning (deliberate practice, feedback, dialogue, and reflection) within and across each component of the eCoaching continuum.

Cultivating a Culture Where eCoaching on a Continuum Can Take Root

“Culture eats strategy for breakfast.” This quotation is most often credited to leadership guru Peter Drucker. No doubt, successfully shifting professional development from piecemeal, random acts to a seamless, technology-enabled continuum requires mention of instructional culture. Cultivating an instructional climate in which the eCoaching continuum can take root requires leadership, and it requires that teachers and other school professionals take part in establishing a strong, supportive culture comprising equal parts growth mindset (Dweck, 2007) and grit (Duckworth, 2016). To do just that, teachers and other school professionals must share a common vision of instructional excellence, embrace high expectations for teaching and learning, and commit to ongoing instructional improvement. Some evidence confirms that cultivating a strong instructional culture pays off not only in retaining teachers but also in improving student performance. Consider, for instance, Greenhouse Schools, which across the United States emphasize a strong instructional culture and share five characteristics: a high hiring bar, a focus on student learning, authentic instructional leadership, effective professional development, and support for teacher performance. “Compared to schools with weak instructional cultures, the average student proficiency rates at Greenhouse Schools were 21 percentage points higher in math and 14 percentage points higher in reading” (The New Teacher Project’s Greenhouse Report, 2012, p. 1).

Adopting eCoaching on a Continuum Through Flexible Use

The eCoaching continuum can be used effectively for professional development by teams or by individuals. For example, members of a PLC may decide that adopting the eCoaching continuum would strengthen their approach to professional development. Similarly, members of grade-level or content-area teams may decide the same. Individual teachers may also use the eCoaching continuum when crafting their professional development plan for the school year.

Regardless of whether teams or individuals adopt the continuum, one approach to carrying it out is for the district, building, or grade-level coach to facilitate and coordinate each component. In this way, the coach serves as the glue that adheres the four components together, which, in turn, form the continuum. The coach works with the team or individual teachers, ensuring the four components included in the continuum are provided and connected. Doing so ensures the professional development reflects the comprehensive, intensive alternative that is needed and prevents the fragmented, piecemeal tactics of the past from taking root. The most effective way to support coaches, teams, and individuals in carrying out the eCoaching continuum, however, is through district-level support and adoption.

Using This Book Effectively

In this book, I, along with contributors, describe how to engage in professional development based on a series of four connected technology-enabled components that form the eCoaching continuum. The aims are twofold: to bring professional development out of the industrial age and into the digital age, while also improving the effectiveness of professional development by using a continuum, rather than a piecemeal approach. That said, this is not just another “how to” book. The content, while clearly practical, is also intended to inspire and empower education professionals. In short, in writing this book, we kept in mind teams and individuals who are interested in taking on and participating in more worthwhile, substantive, and effective professional development pursuits.

This book is organized into six chapters. Chapters 1 through 4 describe each component of the eCoaching continuum in detail. We offer the reader practical explanations and examples for developing each technology-enabled component, including the study of theory and practice, the observation of theory and practice, one-on-one coaching, and group coaching. Chapters 5 and 6 detail not only how to carry out the eCoaching continuum approach within a team context, but also how to capture the impact on schools, teachers, and students. As the framework requires a shift from current piecemeal practices, Chapter 5 describes team composition and member responsibilities. Chapter 6 explains how to collect, use, and interpret formative and summative teacher and K–12 student data as an inquiry-based approach for making informed decisions about teaching *and* learning. We provide illustrations throughout to strengthen understanding and enhance application.

Readers might be surprised by their familiarity with components included in the eCoaching continuum, such as group coaching (critical friends groups or grand

rounds). This is actually desirable, because the content builds on prior knowledge and extends past experiences, positioning readers to carry out the content effectively and efficiently. Readers will likely find the contribution this book makes is in describing how the four components are put together and carried out through a variety of low- and high-tech options at differing price points. Readers, too, may find the flexibility of the model appealing and somewhat surprising. The eCoaching continuum is not a rigid, prescriptive approach. Instead, it is designed like a blueprint that can be customized to meet individual teacher or team needs. As long as the four components of the continuum remain intact, the content can be crafted within and across it to meet professional development needs at the classroom (as teacher self-directed professional development), grade, building, or district level. Readers should find case examples especially useful in aiding transfer. And readers can extend the eCoaching continuum to support ongoing development of coaches. To do so, coaches would use the four components to study coaching and the eCoaching continuum, observe one another while engaged in the practice of it, receive one-on-one coaching while coaching, and participate in group coaching with peers (i.e., other coaches) to dialogue and solve problems of practice specific to carrying out the eCoaching continuum.

What Adopting the eCoaching Continuum Will Accomplish

I began this Introduction with a quote by Andy Hargreaves. We seem to be at a crossroads in professional development. The choice is clear. Continue with antiquated, ineffective approaches or embrace promising alternatives. If we are to achieve the improvements in teaching and learning that can be realized through effective professional development alternatives, such as the eCoaching continuum, then we must challenge and support one another in taking on their use. In short, adopting the eCoaching continuum enables teachers, principals, and other school professionals to engage in deeper, more meaningful, connected professional development that transfers to classroom practice, sticks over time, and improves outcomes for K–12 students. Yet, because shifts in professional practice, no matter how welcome or needed, are shorter lived than not, there is more to consider.

In a 2011 *New Yorker* article entitled “Cowboys and Pit Crews,” widely acclaimed and well-respected Harvard surgeon and scholar Atul Gawande grappled with this very issue—albeit in medicine rather than education. Clearly, medicine and education are different and unique disciplines. Still, many parallels warrant consideration: increasing professional engagement, improving working conditions, and alleviating personnel shortages, to name a few.

Essentially, Gawande (2011) asserted “the reality is that medicine’s complexity has exceeded our individual capabilities as doctors.” Given that we work and live in the digital age, coupled with the rapid advancements that have also occurred in education and related fields, his insight regarding complexities exceeding individual capabilities warrants consideration. Like medical doctors, professional development providers are often hired as cowboys or cowgirls—riding in to save the district and to arm frontline practitioners with new knowledge. But, as Gawande put it, “that’s not what we need.” Instead, we need pit crews—teams comprising dedicated, trained professionals who share a common goal—improving teaching and learning for all. The eCoaching continuum does just that.

Because I have pioneered the development of this work, personally conducting more than 800 one-on-one, real-time, in-ear coaching sessions, I am often asked what has been the most surprising or rewarding aspect of it. Over the years, one response consistently comes to mind—it was an unanticipated outcome. Using online, in-ear technology during classroom instruction, I was eCoaching an in-service teacher who taught secondary students with emotional and behavioral disorders at an alternative school. At the beginning of the lesson, she explained to the students why she was wearing the Bluetooth earpiece. One of the students, an African American male who was academically disengaged and on the verge of dropping out due to a history of chronic school failure, sat up, leaned forward, and began asking the teacher a series of questions. He was intrigued by the notion that I was supporting and eCoaching his teacher from afar, so much so that for the first time in a very long time, he was able to see the value of education—proclaiming aloud for all to hear that he just might stay in high school and go on to college. That, to me, is perhaps the most poignant illustration of the power of eCoaching and among the most compelling reasons for adopting the continuum; I hope that you agree.

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Related ASCD Resources

At the time of publication, the following resources were available (ASCD stock numbers appear in parentheses):

Print Products

Instructional Coaching in Action: An Integrated Approach that Transforms Thinking, Practice, and Schools by Ellen B. Eisenberg, Bruce P. Eisenberg, Elliott A. Medrich, and Ivan Charner (#117028)

Peer Coaching to Enrich Professional Practice, School Culture, and Student Learning by Pam Robbins (#115014)

Educational Coaching: A Partnership for Problem Solving by Cathy A. Toll (#118027)

Learning from Coaching: How Do I Work With an Instructional Coach to Grow as a Teacher? (ASCD Arias) by Nina Morel (#SF114066)

The Coach Approach to School Leadership: Leading Teachers to Higher Levels of Effectiveness by Jessica Johnson, Shira Leibowitz, and Kathy Perret (#117025)

Differentiated Literacy Coaching: Scaffolding for Student and Teacher Success by Mary Catherine Moran (#107053)

Effective Literacy Coaching: Building Expertise and a Culture of Literacy: An ASCD Action Tool by Shari Frost, Roberta Buhle, and Camille Blachowicz (#109044)

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