Professional Learning as the Key to Linking Content and Literacy Instruction

JACY IPPOLITO

Much of this book has focused specifically on what educators can do to simultaneously focus on content and literacy goals in secondary classrooms. In our minds, the most important interaction in education is between teachers and students, and this book rightly keeps the focus on improving the quality of those interactions by linking content and literacy instruction to prepare students for twenty-first-century citizenship and careers. However, there is an important component of this work that needs to be addressed in order for the good ideas in this book to be translated into improvements in classroom practices and student achievement. School and district leaders, alongside teachers and teacher leaders, must design and engage in the most effective forms of professional learning in order to adopt research-based instructional practices, meet the demands of the Common Core State Standards, and address students’ academic needs. Without explicit attention to professional learning in schools, research has little chance of translating into effective classroom practices.1 Alternately, administrators and teacher leaders who are aware of the potential and pitfalls of professional learning communities (PLCs) in schools are more likely to help teams translate research and standards into practice.2

To help readers make the most of the resources presented in this book, this chapter outlines four critical ways of thinking and working that we (the editors of this volume) rely on when engaging teachers in professional development related to secondary content and literacy instruction. Every time we work in schools, we consider the following:

1. Technical versus adaptive change
2. Professional learning communities
3. Instructional coaching
4. Discussion-based protocols
These topics represent entire bodies of literature related to professional learning. While we understand that there are many factors educators must consider when designing professional learning experiences (e.g., budgets, departmental structures), we have also found that keeping these four constructs in mind helps teachers and leaders to more easily implement the practices described in this book. Below are brief introductions to each critical area related to professional learning, freely available tools to help educators address these areas, and examples of how different forms of professional learning might be adopted and integrated to maximize school resources.

**Adaptive Versus Technical Dilemmas and Change**

Ronald A. Heifetz and his colleagues have spent nearly two decades talking to leaders across all sectors about the differences between *technical* and *adaptive* dilemmas and organizational responses. The technical/adaptive framework is especially important to consider when introducing and refining disciplinary literacy instructional practices at secondary levels. Because of the large number of individual, group, and organizational changes that must take place for authentic, long-lasting shifts in teaching and learning to occur, the teacher teams we work with appreciate using Heifetz’s framework for understanding and addressing instructional dilemmas both large and small.

Heifetz defines technical dilemmas as those that we “know already how to respond to.” He adds, “These problems are technical because the necessary knowledge about them already has been digested and put in the form of a legitimized set of known organizational procedures . . . ” In other words, technical dilemmas have fairly straightforward answers, even if those answers require a great deal of time, effort, money, and human resources to solve. An example from the field of medicine helps illustrate this idea. A technical dilemma might be a simple infection for which there is a known antibiotic cure. In this case, a patient appropriately relies on a doctor’s expertise and the medication’s efficacy to solve the problem. From the world of education, an example of a technical dilemma comes from a high school biology teacher lamenting that students are not frequently using new vocabulary from their textbook in lab reports and weekly journal entries. Students’ discussions in class and writing are filled with misused terms and nontechnical language. Noticing this behavior, the teacher consults her department chair in search of science-focused vocabulary lists. After a quick conversation, the department chair points the teacher to several online lists of scientific terms for high school students. The department chair recommends that students complete Frayer Model concept maps each week with five words from the online lists and then receive extra credit for using them in their lab reports and weekly journal entries. After a month of experimentation with these practices, the
teacher notes a slight increase in students’ use of technical scientific language and thanks the department chair for the excellent suggestions.

Notice in this example that both the framing of the dilemma and the solution seem to suggest that the teaching and learning issues at hand are clear and well defined. The teacher views the dilemma as students not being exposed to enough scientific language. She seeks outside expertise (the department chair) and settles quickly on a solution—increasing the number of words students encounter (in the form of lists) and writing science-specific words in graphic organizers and in weekly assignments.

This process of dilemma identification and solution happens every day in schools, and in many cases, technical solutions do result in changes in student behavior. However, the questions a savvy coach or school leader might ask here include: “Though students are using certain words more frequently, are they getting better at reading, writing, and presenting like scientists? Are they remembering the words they’re using and applying them flexibly in written work and presentations over time?” After a yearlong experiment with Frayer Models and lists of scientific vocabulary, the frustrated biology teacher might acknowledge that students do not seem to be retaining scientific vocabulary over time and that the overall quality of students’ written products and test scores seem relatively unaffected. Perhaps more is going on here?

This is when it becomes important to consider adaptive dilemmas, which have no immediate, clear answers. Heifetz describes adaptive dilemmas as those for which “no adequate response has yet been developed . . . No clear expertise can be found, no single sage has general credibility, no established procedure will suffice.”8 Adaptive dilemmas are often intractable and multifaceted, resistant to single solutions. From the field of medicine, there are many examples of adaptive dilemmas, perhaps most notably how best to treat cancer. While there are many treatment options available, no single best solution has emerged for all patients all of the time, in part because of variability between patients’ particular cases. Solving the adolescent literacy crisis is an educational example of an adaptive dilemma for much the same reason.9 No single program, strategy, or set of texts has proven to unilaterally help all teens read and write proficiently, for much the same reason—variability in students’ needs, teachers’ preparation, teachers’ practices, districts’ policies, and schools’ organizational structures. Moreover, there is no single authority or expert to whom we can turn.

We (and Heifetz) fully acknowledge that the distinction between adaptive and technical dilemmas is a bit of a false dichotomy. Many education-related dilemmas include both technical and adaptive components and require both technical and adaptive responses. Moreover, we argue that leaders and teachers using this book must consider both technical and adaptive elements of the work. This is the advice we would give to the high school biology teacher in the previous example.
In one sense, the teacher has identified a fairly straightforward technical dilemma (i.e., students are not spending enough time reading and writing scientific vocabulary). This dilemma might be solved with a straightforward technical response (i.e., exposure to lists of scientific vocabulary and practice with classroom-tested strategies such as the Frayer Model). Though this seems like a clear-cut case, larger adaptive dilemmas suddenly become clear as the teacher and her department chair reflect at the end of the year. There are so many new words introduced in high school biology classes—how can students master them all? What if vocabulary lists are not the most effective means for students to acquire new scientific words? Which general academic words in the science textbook also appear in other content-area texts and might cause confusion (e.g., \textit{transform}, \textit{hypothesize}, \textit{conduct}, \textit{determine}, \textit{solution})? How do we know if and when students have mastered new vocabulary? What are the best ways for students to acquire and use new words? What are the relationships between learning words and reading, writing, and presenting as scientists? These are questions without simple answers. They challenge our assumptions about how students learn words, which words matter, and even what it means to \textit{know} a word. If the high school biology teacher and her department chair begin asking these questions, they would be considering the larger adaptive dilemmas involved. Their responses might be slower, more collaborative, and more systemic—ultimately shifting the way they (and other teachers) teach vocabulary. Thus what originally seemed like a technical dilemma, easily solved by finding new vocabulary lists and strategies for students, becomes an adaptive dilemma requiring both leaders and teachers to jointly reflect on entrenched habits, mind-sets, and obstacles both logistical and cultural.

An adaptive response to this dilemma might include the biology teacher forming a study group with departmental and cross-departmental colleagues to look at word study across classrooms. The group might collaboratively experiment with different strategies for introducing words and keeping track of the results. The group might visit classrooms to observe vocabulary instruction in action and reflect on various levels of student engagement and resulting written products. Ultimately, the group might adopt and adapt a multipronged framework (much like the one introduced in chapter 5 of this volume) to encourage word learning across classes, constantly refining techniques based on formative assessment data.

Educators who view this only as a technical dilemma requiring new vocabulary lists will almost always be frustrated when results do not match expectations; whereas educators who view it as a combination of technical and adaptive elements will approach solutions collaboratively and iteratively, with the expectation that new patterns will need to be introduced, modeled, tested, revised, and refined. As noted in chapters 4 and 5 of this volume, disciplinary and academic vocabulary instruction is complex and requires a great deal of flexibility and experimentation in order to help
students acquire and use new words. Technical responses alone will be unlikely to increase word learning and use.

Heifetz et al. write about a continuum of challenge ranging from purely technical dilemmas, to a mixture of technical and adaptive, to purely adaptive. The more adaptive the challenge, the more learning that individuals and organizations must undertake. In the vocabulary example above, if teachers in the high school have a long history of authentic collaboration and the true dilemma is simply choosing which words to explicitly teach, then perhaps only a small amount of technical learning would be required (i.e., collaboratively identifying science-specific and general academic language vocabulary). If the teachers rarely collaborate in PLCs, then a great deal of learning at both the individual and group levels would need to take place in order to design departmental and cross-departmental vocabulary instruction. Leaders and teachers would need to engage in adaptive learning requiring them to fundamentally change the way they think and work.

Teams of secondary teachers benefit from thinking about adolescents’ literacy needs through this technical/adaptive lens because it allows them to move forward strategically and with eyes wide open about which elements of a particular dilemma must be considered technical or adaptive or both. We as educators often make the mistake of addressing adolescents’ disciplinary literacy needs primarily through a technical lens. In our eagerness to help students, we naturally look for the new strategy, vocabulary list, reading program, or intervention that will help all of our students, instead of considering the deeper cultural and habitual aspects that will require us to adapt our own ways of thinking and working. Once again we are reminded that there is no single best solution; most of the rich examples provided throughout this book must be adopted and adapted with caution, with full understanding that there is almost always an adaptive element to this work. Real change comes over time, from collaborative experimentation and reflection. Considering instructional dilemmas and responses within the technical/adaptive framework helps save us from our own tendencies to jump to quick conclusions and instead urges us to engage in meaningful professional learning.

**Will the Real PLCs Please Stand Up?**

Professional learning communities (PLCs) are a second useful construct for readers considering how to use the information in this book. PLCs have been a primary mechanism for adult learning and professional development in the United States for much of the late twentieth century. Now, in the second decade of the twenty-first century, it is rare to find a district that has not dabbled with PLCs in one form or another. It is common to hear district and school leaders describe PLCs as the
primary way that teachers engage in professional learning. However, as one of the
most widely cited proponents of PLCs, Richard DuFour, notes: “People use this term
[PLCs] to describe every imaginable combination of individuals with an interest in
education . . . In fact, the term has been used so ubiquitously that it is in danger of
losing all meaning.”\textsuperscript{12} We agree with DuFour and have met many educators inappro-
priately calling any small gathering of teachers a “PLC,” a practice that devalues the
work of real professional learning communities: groups of educators who meet regu-
larly over time, learn together by focusing on student learning, and challenge and
support one another to improve practice.

Readers who wish to experiment with the ideas in this book in PLCs would do well
to focus on the articulated principles of effective PLCs identified across the literature:

• Deprivatization of practice
• Trust and respect
• Openness to improvement
• Reflective dialogue
• Collective focus on student learning
• Collaboration
• Shared norms and values
• Time to meet and talk\textsuperscript{13}

Groups who do not embody these practices may not be maximizing their PLC
time. Of course, administrative support plays a large role in the efficacy of PLCs. If
training in how to facilitate adult learning, time to meet, and clear policies allowing
teachers freedom to experiment are not made available, then it is understandable
how a supposedly rich professional learning experience quickly turns into an empty
activity.

Educators might use Heifetz's technical/adaptive framework as one way of con-
sidering the degree to which their PLCs are challenging the status quo and pushing
systematically toward more effective instructional practices. Less-effective PLCs may
unintentionally focus more on technical dilemmas and rush to technical solutions,
while more-effective PLCs may take the time to notice and tackle adaptive dilemmas
through an iterative process of analysis, research, experimentation, and reflection.
The differences between less- and more-effective PLCs (see figure 14.1) are important
for leaders and teachers to consider as they use the content of this book to continually
refine content and literacy instructional practices.

Less-effective professional learning communities may have low levels of trust, few
shared norms, and cultures that prioritize autonomy and concealing instructional
practices (e.g., closing classroom doors, discussing only classroom triumphs and not
dilemmas). Such PLCs will tend to focus on the obstacles to teaching and learning
(e.g., not enough time, poor schedules, large numbers of English language learners, large numbers of students with disabilities) instead of seeking out, trying, and analyzing practices to evaluate which have the greatest effect for different groups of students. Groups that constantly return to issues such as “If only we could find the right reading comprehension strategies” or “If only we had ninety-minute blocks of instructional time” might be limiting their growth by focusing exclusively on technical dilemmas and solutions, or issues beyond their control. Monetary and structural obstacles are ever-present in all schools, yet if PLCs focus exclusively on these dilemmas, they run the risk of never fully turning their attention to the efficacy of their own daily interactions with students.

In contrast, effective PLCs focus on surfacing and analyzing patterns in their own instruction and the resulting effects on student learning. Both successful and unsuccessful practices across classrooms are described and shared with colleagues. Dilemmas of practice are front and center. While acknowledging structural and organizational constraints, the focus of the group always returns to: “Given current constraints, how can we work differently to improve student learning?” Members of effective PLCs consider how they spend their time together, how they talk with one another, and how they will get better over time at collaboration. Members of effective PLCs design and rely on explicit norms, clear agendas, and discussion-based protocols to make sure that time is used productively and that conversations stay focused on teaching and learning. Effective PLCs also address technical dilemmas (e.g., adopting a new schedule, strategy, program), but they are always aware of the underlying
adolescent dilemmas that require longer, deeper changes in their own thinking and work. Finally, the most effective groups we have worked with clearly articulate questions that focus their energy for a semester or a year, such as “How can we better meet the reading needs of English language learners across our content-area classes?” or “What difference will the explicit teaching of inferencing skills make in high school content-area classes?” To answer these questions, groups of teachers bring student work to their PLC, describe or show video footage of their own instructional practices, read new books and articles together, and collaboratively adopt and adapt new practices that are then reviewed and refined.

Much like Releah Lent argues in her book *Literacy Learning Communities*, we have found that educators focused on improving student learning must pay just as much attention to how adults in schools learn. Highly effective secondary PLCs ask essential questions about literacy (often related to one or more of the six domains—disciplinary literacy, vocabulary, discussion, digital literacy, multiple texts, and writing-to-learn—presented in this book) alongside questions about their own group processes. For example, one team we recently observed asked, “How can we improve accountable talk in our classrooms, while also improving the ways in which we talk with each other?” These essential questions come from a literacy leadership PLC that spent nearly two years considering Common Core standards, evidence-based discussions, and how teachers might better model the language and processes of academic discussions. Most importantly, the team spent a great deal of time considering how they would learn together as a team (e.g., looking at student work, observing classrooms, videotaping their own discussions, and reflecting on them). We completely agree with the team’s theory that in order to continually improve classroom instruction that their PLC needed to focus on slower, adaptive, incremental improvements and refinements of core practices like discussion—not the quick-fix technical solutions adopted by less-effective PLCs.

**Instructional Coaching as a Complement To PLCs**

Sometimes even the most effective PLCs can benefit greatly from outside expertise and support. Where members of PLCs need additional support, instructional coaches can provide objectivity along with content and facilitative expertise. We have found that coaching at middle and high school levels can be productive in helping teachers explore and refine practices related to the six domains in this book; however, coaching is most effective when it is clearly defined and supported by a number of contextual factors.

Mirroring the evolution of PLCs, instructional coaching has spread rapidly in schools over the past two decades. This hurried adoption has produced widespread
confusion about what coach means from school to school, district to district, and state to state. The opening chapter of McKenna and Walpole’s book *The Literacy Coaching Challenge* is particularly helpful for readers considering different coaching models to help promote adult learning around our six domains (see table 14.1 for a summary).17

Leaders and teachers considering how instructional coaching might help them make use of this book’s resources should consider several factors. First, it is important to match a coaching model with school and teacher team goals. While all coaching models share an end goal of improving student learning and achievement, different coaching models approach that ultimate goal in different ways.

Some models, such as peer coaching and cognitive coaching, focus on helping individual teachers achieve professional goals they set for themselves. Both mod-

| TABLE 14.1  |
| Summary of coaching models |
| Mentoring new teachers | A senior colleague coaches a novice teacher, typically for the first year or two of that teacher’s career. The primary goal of this model is to ensure that new teachers survive and thrive in their new positions. |
| Cognitive coaching | A designated coach works with a teacher to help her/him develop new ways of thinking, working, and teaching based on the teacher’s individual goals. Individual growth (professional and intellectual) is the primary goal of this model. |
| Peer coaching | Pairs of teachers coach one another by observing each other’s practices, listening to each other’s challenges, experimenting with new practices together, co-planning, etc. Importantly, the coach is the one who is teaching, and observer is the one who learns from watching and listening to the reflections of the coach. Promoting collaboration and strong partnerships is the primary goal of this model; targeted feedback is not. |
| Subject-specific coaching | A coach works with one or more groups of teachers within a particular discipline (e.g., literacy, math, science, social studies) to introduce, align, and refine subject-specific instructional practices. One of the primary goals of this model is alignment of best practices across classrooms. |
| Program-specific coaching | A coach works with one or more groups of teachers across a department or school to introduce and refine practices associated with a specific framework or program. A primary goal of this model is fidelity to a program. |
| Reform-oriented coaching | Coaches are “directors” and/or “mentors” alternately working to change systems within a school (e.g., schedules, literacy leadership teams) and working with teachers on embracing and refining best practices. Increasing student achievement is the primary goal, but unlike some of the models described above, particular methods (i.e., specific strategies, programs, content) are not dictated. |

els presume that teachers have a fair bit of autonomy, a clear vision of both their instructional needs and goals, and flexibility in their schedules to collaborate with at least one other colleague (e.g., visiting classrooms, co-planning, reviewing data). These coaching models position teachers as experts with control over their own professional learning. Other models, such as program-specific and subject-specific coaching, focus on building particular skill sets and capacities in teachers, teams, and entire schools. These forms of coaching nudge and support teachers as they adopt, adapt, and refine specific strategies and programs. An assumption underlying these models is that increases in student achievement come from alignment of practices across classrooms, not just individual teacher growth. Finally, reform-oriented coaching (McKenna and Walpole's term) positions coaches as powerful change agents who work with administrators on changing organizational structures and with teachers on changing classroom practices. This last model suggests a patchwork of coaching practices focused on increasing student achievement, a flexible model that changes quickly if results are not satisfactory.

Beyond particular models, a second consideration might be how responsive or directive coaches need to be in their interactions with teachers. In other words, to what degree is a coach responding to teachers’ needs and interests (e.g., cognitive coaching or peer coaching) versus directing teachers to enact specific practices or programs (e.g., subject-specific or program-specific coaching)? When asked, coaches reported striving to achieve a balance between these positional stances in order to influence teachers’ practice. For readers considering using this book as part of coaching work, we argue that the balance between directive and responsive stances rests partly on the weight of research evidence presented for each of our six domains. In cases where there is a fair bit of research evidence (e.g., discussion, vocabulary, writing-to-learn), coaches might take a more directive approach in suggesting particular practices or ways of thinking and working. In cases where research evidence is still growing (e.g., disciplinary literacy, digital literacies, multiple texts), coaches might take a more responsive approach and listen closely to teachers’ disciplinary interests, needs, and questions.

A third consideration related to the responsive/balanced/directive framework focuses on the nature of coaching activities, what Moran calls the literacy coaching continuum of professional learning practices. Moran describes a continuum of coaching practices that range from least to most “intrusive.” Collaborative resource management (i.e., finding and sharing resources that teachers need) is less intrusive than classroom visits, coplanning, or study groups (similar to PLCs), which themselves are less intrusive than peer coaching and coteaching (the most intrusive end of the continuum). Moran suggests that coaches and teams of teachers consider their goals, the varying levels of trust among different teacher teams, and design a sequence
of coaching activities that slowly builds collaborative capacity. Moran suggests that these practices can be engaged in iteratively, moving back and forth between more and less intrusive practices in order to build comfort and trust. We agree wholeheartedly. When combined with the responsive/balanced/directive framework, the continuum of coaching practices becomes a powerful model for considering how a coach might work with professional learning communities of teachers at different points in a school year to increase reflection, provide objective feedback, and facilitate challenging conversations about new practices.

Finally, readers should consider whether or not hiring a part- or full-time coach is the best use of a school’s resources, given middle and high schools’ many competing commitments and whether or not expectations of secondary coaches are realistic. The International Reading Association’s 2006 Standards for Middle and High School Literacy Coaches outline a daunting list of qualifications for coaches at secondary levels, including leadership standards (being skillful collaborators, job-embedded coaches, and evaluators of literacy needs) and content-area standards (being skillful instructional strategists across content areas). Each of these standards comprises multiple elements, and even seasoned secondary coaches might blanch a bit at all that is expected of them. A similar discomfort might arise if they take the Self-Assessment for Middle and High School Literacy Coaches. This twelve-page, somewhat intimidating self-assessment helps secondary coaches consider their own strengths and weaknesses across nine different domains of knowledge and skill related to secondary coaching, from foundations of literacy, to assessment, to classroom coaching and facilitating adult learning. Looking back at this self-assessment, which I played a small part in creating, it seems impossible that a single coach could be masterful in all nine domains! Yet I still believe it is a useful document to guide self-reflection.

There is great power in coaching as a professional learning mechanism, and research has found modest effects of coaching at the secondary level. Recently, Lent has argued that peer coaching models may be one of the cheapest and easiest ways for secondary teachers to engage in coaching activities as part of larger PLCs. We agree. A lone instructional coach is unlikely to introduce and effectively spread the ideas presented in this book, such as Lieberman and Looney’s suggestions for using multiple texts, without the support of PLCs engaging in ongoing inquiry. When working alongside teachers meeting in departmental and cross-department PLCs, coaches have greater opportunity to influence classroom instruction and facilitate professional learning. Teachers in a high school history department we observed were much more likely to consider using multiple texts as part of units on World War II and immigration when their coach gave them specific suggestions after they had already begun asking questions about text sets in their PLC. In this way, a coach works alongside a PLC to enhance (not dictate) group learning.
Discussion-Based Protocols as Capacity-Building Tools

The reciprocal relationship between coaches and PLCs also allows coaches to easily introduce the fourth construct for consideration in professional learning: discussion-based protocols. By introducing protocols to teams of teachers organized into PLCs, coaches support teachers as they engage in challenging conversations about their own instruction—a practice still uncommon in many schools.26

For groups of educators engaging in professional learning around disciplinary literacy, discussion-based protocols are the most inexpensive and effective tools available. Discussion-based protocols have been widely described as essential tools for adult collaboration and professional development in schools.27 For the purposes of this chapter, protocol can be defined as an “agreed upon set of discussion or observation rules that guide coach/teacher/student work, discussion, and interactions.”28 Some protocols are designed primarily to help students adopt particular habits of mind and ways of observing, analyzing, and discussing ideas.29 Such protocols are quite simple and can be adapted for a wide range of discipline-specific purposes with students or adults. One of our favorites is the “see, think, wonder” protocol that asks groups to first look at a text, piece of art, object, or other artifact and then write and share their descriptions, interpretations, and questions. Ideally, engaging groups of students or adults in these steps helps them to slow their thinking, explicitly describe an artifact before rushing to judgment, and end with questions that might lead to further explorations and connections. Embedded in this simple protocol are the basic habits of mind adopted by scientists, researchers, and artists. It is easy to imagine how such a simple set of guidelines for engaging with new artifacts could be tailored to discipline-specific purposes across grade levels.

More sophisticated protocols, for use with adults in professional learning communities, might be catalogued according to what we call a continuum of protocols (see figure 14.2). This is one way that we have introduced protocols to teachers and literacy coaches across districts.30 The continuum is built on the principle that different levels of trust, familiarity, and collegiality allow for fundamentally different types of conversations in schools. Certain conversations among educators are low stakes and can be entered into easily and with fairly simple protocols for getting to know one another, sharing ideas, and looking at professional texts. Alternately, there are conversations that many educators find challenging if they have not spent a great deal of time to first establish high levels of trust and collegiality (e.g., conversations in which colleagues discuss each other’s practices, analyze video footage of one another’s instruction, or discuss issues of equity and social justice). We designed the continuum of protocols to guide coaches, teacher leaders, and PLC facilitators as they con-
## FIGURE 14.2
Continuum of discussion-based protocols

<table>
<thead>
<tr>
<th>Protocol category</th>
<th>Purpose for discussion/examples of protocols</th>
</tr>
</thead>
</table>
| Sharing experiences       | *Purposes:* Sharing personal connections, breaking the ice, exploring ideas, surfacing assumptions  
                           *Examples:* Compass Points, Connections, Chalk Talk, Continuum Dialogue, Block Party, Microlab, Passion Profiles |
| Text-based discussions    | *Purposes:* Exploring text together, revisiting core concepts, learning new concepts, challenging assumptions  
                           *Examples:* Three Levels of Text, Text-Rendering, Chalk Talk, Final Word, Four A’s, Save the Last Word for Me, Microlab, Text-Based Seminar, Block Party |
| Looking at student work   | *Purposes:* Surfacing and aligning expectations of student work, challenging assumptions, calibrating teacher responses, planning instruction  
                           *Examples:* Collaborative Assessment Conference, ATLAS—Looking at Data, Art Shack, Student Work Gallery, The Slice |
| Tuning                    | *Purposes:* Improving a piece of writing, improving a unit/lesson/assessment, solving a dilemma of instruction, looking at student work in relationship to an assignment, improving a specific plan or process already in place  
                           *Examples:* Tuning Protocol, Tuning a Plan, Constructivist Tuning Protocol, Tuning for Larger Groups |
| Looking at data           | *Purposes:* Designing instruction based on assessment, focusing instructional and intervention efforts, making data-based decisions, aligning instructional reform efforts  
                           *Examples:* ATLAS—Looking at Data, Data Driven Dialogue, Data Mining Protocol, The Slice |
| Planning and observing    | *Purposes:* Planning or coplanning instruction, exploring use of physical space, observing teacher/student interactions, observing student responses to instruction  
                           *Examples:* Into-/Through-/Beyond- Planning Guide, Lesson-Planning/Observation Guide, Video Camera Court Reporter, Focus Point, Interesting Moments, Observer as Learner, Person Observed as Coach |
| Dilemmas of practice      | *Purposes:* “Defining” problems of practice, expanding thinking about dilemmas, collectively “owning” dilemmas, offering next steps/new ideas  
                           *Examples:* Consultancy, Issaquah, Charrette, Back to the Future Protocol |
| Equity and social justice | *Purposes:* Surfacing assumptions, examining inequities, discussing the “elephant in the room,” offering new ideas  
                           *Examples:* Equity Protocol, Equity Stances, Looking at Student Work: Equity, Classroom Equity Writing Prompt, Provocative Prompts for Equity Conversations, Tuning for Equity Protocol |

Note: Example protocols above are listed roughly in an order in which they might be introduced to new groups. To view the protocols listed, visit www.schoolreforminitiative.org, http://www.nsfharmony.org/, and http://www.literacycoachingonline.org/tools.html.
sider when and how to introduce structures over time that might help teachers build the capacity to engage in increasingly challenging collaborative work.

The continuum borrows Critical Friends Group tools and traditions, but it sequences classic protocols into an order that teachers and coaches find meaningful and that slowly builds the capacity to enter into riskier conversations. We have grouped and sequenced the protocols as follows:

1. Sharing experiences
2. Text-based discussions
3. Looking at student work
4. Tuning
5. Looking at data
6. Planning and observing
7. Dilemmas of practice
8. Equity and social justice

Online repositories of protocols have grown exponentially over the past decade, and can be freely downloaded from the websites of groups such as the National School Reform Faculty, the School Reform Initiative, and the Literacy Coaching Clearinghouse. Coaches and teachers can use the continuum to group and sequence the ever-growing number of protocols, and perhaps more importantly, can use both existing protocols and the continuum to help design their own discussion structures.

The greatest strength of using protocols with groups of educators is that it establishes clear and consistent habits for describing, interpreting, suggesting, and refining instructional practices. Protocols prevent groups from lapsing into advice-giving modes, jumping to conclusions, misinterpreting one another’s practices, or quickly adopting technical solutions. Of course, the strength of protocols partly lies in their rigidity. We often hear teachers ask, “Do we have to follow this protocol? Can’t we just talk with one another?” Teachers may bristle at first when asked to adhere to timed rounds of discussion focused on observation, questioning, and interpreting. However, adhering to the time limits and steps in classic protocols such as the “Consultancy” or “Collaborative Assessment Conference,” at least at first, teaches new and nonjudgmental ways of interacting. Over time, groups that have become familiar with a range of protocols might so thoroughly adopt the habits embedded in them (e.g., noticing, questioning, wondering) that they may begin designing effective protocols tailored to their specific team or departmental tasks. Lisa Messina’s work with a disciplinary literacy network (see chapter 3 of this volume) is a prime example of an experienced coach and facilitator adapting protocols to meet content-area teachers’ specific professional development needs.
Lessons Learned

In conclusion, I present evidence from three of our partner schools to illustrate how, when considered together, the four constructs at the heart of this chapter (technical/adaptive change, PLCs, coaching, and protocols) can have powerful effects on professional learning. Each “lesson learned” below is the result of the commingling of the four constructs and comes directly from our work as researchers and consultants in schools over the past five years. Pseudonyms for schools are used to protect privacy.

Careful Self-Study and Reflection Are the Springboard for Adaptive Change

Conducting a targeted needs assessment, or self-study, focused on adolescent literacy is certainly not a new concept for seasoned secondary teachers and leaders. However, conducting a needs assessment effectively is challenging. When done well, self-study can support collaborative PLCs wishing to engage in both adaptive and technical aspects of improving disciplinary literacy instruction. Data collected from teachers and students can help leaders decide how best to allocate professional development resources and which topics teacher teams must address during cycles of inquiry. Our own thinking about self-study has especially influenced the work of thoughtful teachers and leaders in three schools (one middle and two high schools) across two states in New England.

Literacy leadership teams (comprising administrators, department heads, teachers, and specialists) at the three partner schools we highlight in this section each contacted us (the editors) in search of efficient, effective, and flexible structures for improving disciplinary literacy instruction in their schools. After initial consultations, each leadership team determined that conducting a careful self-study was the first step to designing robust professional learning experiences. Capstone Middle School is a large magnet middle school serving roughly twelve hundred sixth- to eighth-grade students from both urban and rural communities. Boddington High School is a large urban high school serving a diverse population of over seventeen hundred ninth- to twelfth-grade students originating from over seventy-five countries and speaking more than fifty languages. Hillock High School is a midsized rural high school serving over eleven hundred eighth- to twelfth-graders.

While methods of data collection (focus groups, interviews, surveys) and length of self-study (several months, one year) varied, one strong commonality across the schools was their use of the Content-Area Literacy Survey (CALS). The CALS was collaboratively designed by researchers and practitioners affiliated with the Strategic Education Research Partnership. The survey, freely available online, allows administrators and team leaders to survey an entire school faculty, or faculty across an entire
district, as well as students. Originally designed for use at the middle school level, the survey has now been successfully piloted at the high school level. The purpose of the survey is to gather descriptive data from teachers about their literacy-related instructional practices, as well as a host of other important factors, including:

- Instructional rewards and challenges
- Professional development experience and needs
- Collective responsibility for literacy instruction
- Teacher views of student reading and writing
- Student literacy practices outside of school

Furthermore, the student survey collects corresponding data about reading and writing habits, classroom experiences, and motivation and engagement. The survey, which includes skip logic to allow participants to talk specifically about particular content-area experiences, takes about twenty minutes to complete on a computer. The results are compiled online in real time, with each new participant’s response instantly added to growing tallies. Bar charts are automatically created for each survey item, visually demonstrating results. Results are available to survey administrators, who then may choose when and how to disseminate data to leaders and teacher teams for analysis.

Capstone, Boddington, and Hillock each asked teachers to complete the survey, and Capstone and Hillock also administered the survey to students. Results were compelling and allowed each literacy leadership team to begin asking questions that would lead to both technical and adaptive work. For instance, Hillock’s fifteen-member leadership team compared teacher and student data using an adaptation of the Data Driven Dialogue protocol. The team first made predictions about what the data might show, then observed the data and shared purely factual descriptions of what they were seeing, “Some patterns I notice . . .” “I notice that . . .” “I’m surprised to see . . .” After describing the data, the team broke into small groups and engaged in a round of sharing inferences, with members suggesting explanations for patterns they saw in the data, taking great care to phrase their inferences as possibilities and not certainties. Finally, the team came back together as a whole group and compared inferences, ending with a round of suggestions for how to connect the survey data to other information such as state test scores, writing assessments, and SAT and PSAT scores. This work by the leadership team was distilled and presented back to the entire school’s faculty and leadership, and the survey data and analysis became a starting point for the leadership team and departmental teams to begin considering some of the largest literacy-related concerns in the schools. Topics such as reading engagement and motivation were found to be a concern among most teachers and
students, while other departmental concerns were more specific (e.g., science teachers reporting the need for support in effectively using textbooks).

Importantly, none of these schools’ leadership teams used the CALS data in an evaluative or punitive manner or as evidence that technical solutions (e.g., new vocabulary lists or a computer-aided reading intervention) would quickly raise achievement. Instead, the schools used the CALS data to identify areas where adaptive change seemed most promising—where areas of strength and areas of challenge overlapped enough for departmental PLCs to begin cycles of inquiry and experimentation. For example, at Hillock, survey findings revealed that fewer history teachers reported providing vocabulary instruction than English language arts teachers. Instead of taking the history department to task, or quickly purchasing a vocabulary program, the literacy leadership team identified vocabulary instruction as an adaptive challenge worthy of team exploration in the coming year. Teams were encouraged to try new strategies, keep track of student learning, and report back to the larger literacy leadership team. In this model, teams of teachers were supported with time and autonomy to explore best practices over time with colleagues—first steps toward addressing the adaptive challenge of how adolescents can best learn, retain, and use academic and content-area specific words. Without the CALS survey as part of each school’s needs assessment process, and without protocol-based discussions analyzing the subsequent data, each of these schools may have fallen into the all-too-common position of quickly adopting technical solutions with little teacher investment and little effect. That is not to say that some technical solutions were not adopted as the result of the CALS work; however, the data allowed the literacy leadership teams to identify topics requiring longer adaptive inquiry cycles (e.g., motivation and engagement, vocabulary) and technical challenges requiring targeted resources (e.g., better Internet access in each classroom).

Identifying Small Teams of Teachers to Be Coached in PLCs

When professional development for large middle and high schools that house traditional content-area departments (much like the size and structure of our partner schools) are being designed, initial questions often center around how to provide high-quality professional development for all teachers at the same time. Secondary school leaders may rightly identify a need for disciplinary literacy professional development, but they may jump too quickly to the decision that professional development budgets would be well spent hiring one or two instructional coaches to consult with teachers a handful of times per year. The theory of action in these cases is that there is something that the faculty doesn’t know about adolescent literacy, and if only an expert coach could come into the school a half dozen times and share that miss-
ing knowledge (a technical response to an adaptive challenge), teaching and learning will suddenly change. Unfortunately, we know from the literature and from our own experiences in schools (both as teachers and as unwitting coaches) that this model rarely has the intended effect.\textsuperscript{35}

While we strongly believe in coaching as a model of professional learning and school change, we have found through our work with dozens of schools that developing and maintaining a core focus is the key to productive instructional coaching. We have found that engaging fewer people over a longer period of time leads to bigger changes in teaching and learning. If coaching efforts are too infrequent or dispersed, little real instructional change is likely to occur as a result. Similarly, at the secondary level, a single coach (whether outside consultant or on staff) may often be expected to work across content areas with dozens of teachers—an unrealistic and unproductive design model. Finally, unless careful attention has been paid to simultaneously building PLCs or connecting coaching work to existing PLCs, instructional changes resulting from coaching will be difficult to sustain over time.\textsuperscript{36}

In Capstone Middle School, outside literacy coaches were initially going to be hired to work with all eighty faculty members; however, after the literacy leadership team examined data collected through the CALS and focus groups, it was determined that the English language arts teachers, history teachers, and special educators (about thirty-five teachers altogether) seemed most ready to engage in inquiry cycles around identified topics of student need: reading motivation, habits of mind associated with disciplinary literacy, authentic discussion, and working with complex texts. Two coaches were hired to work over a two-year period with these three groups of teachers, meeting twice per month. As a result of that work, teachers rewrote the major questions guiding their content-area courses, collaboratively designed and implemented academic language vocabulary instruction, collected and constructed new text sets of materials at various reading levels, and reorganized how classroom teachers and special educators shared information.

Part of the successful shift in instructional practices at Capstone Middle School might be attributed to the smaller numbers of teachers being coached. Working with smaller teams of content-area teachers, the coaches were able to balance responsive and directive stances toward the teachers.\textsuperscript{37} The coaches carefully alternated between responding to teachers’ questions and specific curricular needs while also directing the teachers toward best practices, such as those outlined in the previous chapters of this book. This relationship between coaches and teachers somewhat reflects McKenna and Walpole’s reform-oriented coaching and allowed teachers to remain experts while simultaneously seeking to improve.

A second successful aspect of the project was the formation of PLCs within the content areas. Previously, teachers had been collaborating primarily in grade-level
teams, but there had been little opportunity for content-area teachers across grades to coordinate efforts. Cross-grade PLCs within each content area, including special educators, began meeting and working together as a result of coaching work. Those PLC groups were formed during coaching sessions, and discussion-based protocols were modeled during the sessions. The coaches and teachers used an online bulletin board to share questions, concerns, discoveries, and resources between coaching sessions. Meanwhile, the newly formed PLCs were encouraged to meet between and beyond the coaching sessions, establishing a mechanism for teachers to continue exploring and refining practices.

Similarly, at Boddington High, the literacy leadership team agreed that focusing on coaching several teams of teachers was far better than trying to blanket the entire faculty (nearly 150 teachers). Given Boddington’s size, the literacy leadership team was understandably more concerned with how to bring lessons learned in small PLCs to the larger school. As a result, they designed a four-year professional development model, with two two-year cycles of teacher teams working with a pair of coaches. Importantly, content-area teachers were asked to apply as teams to take part in the professional development project, and as part of their application, they needed to elect a coach. The coach would receive partial release time from teaching duties and a small stipend. In exchange, the coaches for each team were required to meet with their team members and other coaches on a weekly basis and communicate regularly with outside consultants to grow their own coaching skill sets. In this model, three teams were selected to participate in the first two years of professional development (a subset of English, history, and world language teachers), while other teacher teams were encouraged to participate in the final two years of the four-year project. The three teams participating in the first two years of the project participated in a weeklong summer institute outlining the ideas presented in this volume, introducing discussion-based protocols, and helping teams develop and refine initial questions that would form the basis of cycles of inquiry during the school year. The focus of the first year of work was piloting new instruction, with the second year’s focus being the scaling up of effective practices to the larger departmental level. While the project is still in its first two years, we have already seen teachers immediately implementing new practices—focusing on vocabulary instruction, designing text sets, engaging students in close reading to highlight disciplinary habits of mind—and reflecting deeply on their instruction in weekly PLC meetings, on an online bulletin board, and during quarterly meetings where the three teams share findings.

These designs for professional learning are powerful because they focus simultaneously on adult professional learning and student learning. Teachers in these schools are working in small teams toward collaboratively defined goals, measuring their success at regular intervals by collectively reflecting on changes in student achievement.
Part of the nature of engaging in adaptive change processes, such as improving adolescents’ disciplinary reading and writing skills, is that few simple, clear answers exist. Yet as educators, we must return to the classroom each day and do our best to help students acquire the disciplinary reading, writing, and presentation skills they will need for college and the workplace. Understanding that tension, the literacy leadership teams at these schools have chosen to invest in building intentional professional learning communities that can carefully consider ideas such as those presented in this book and respond by experimenting with new practices and reflecting on the results of those experiments as part of inquiry cycles. These leadership teams understand that in order to improve student learning, we must simultaneously focus on improving adult learning.

**Final Thoughts**

It is common to hear platitudes about professional development these days—that it needs to be job-embedded, ongoing, data driven, linked to student achievement, etc. While there are grains of truth in these statements, we have not found such advice to be very helpful when sitting down with literacy leadership teams to design professional learning experiences. On the other hand, we have found that focusing on the four constructs outlined in this chapter (technical/adaptive change, PLCs, coaching, and discussion-based protocols) has allowed our partner schools to engage teachers in meaningful professional learning that both introduces new ideas (e.g., teaching disciplinary literacy habits of mind) and responds to long-standing dilemmas (e.g., how do we help our students engage in more authentic discussion?). Focusing on these four constructs allows for the formation of collective goals and movement toward shared practices, while still honoring the needs of individuals. Budgets, schedules, and district policies regarding professional development will always be a consideration. Yet if schools are going to meet the adaptive challenge of improving adolescents’ disciplinary literacy skills, then we as educators must begin taking as much care with the design of our systems of professional learning as we do with designing classroom instruction.
Chapter 13


4. Ibid.


16. Romano, Blending Genre, Blending Style, 20, 24.

17. Ibid., 45.

Chapter 14


5. Ibid., 71–72.


7. To learn more about the Frayer Model, see http://www.adlit.org/strategies/22369/.


25. Lent, “Creating a Literacy Learning Community.”
29. See Project Zero’s Visible Thinking Routines: http://pzweb.harvard.edu/vt
31. For more information about Critical Friends Groups, see http://www.schoolreforminitiative.org/core-practices/.
34. Unless otherwise noted, protocols can be found on the School Reform Initiative’s website: http://www.schoolreforminitiative.org/.
35. Guskey, “Professional Development and Teacher Change.”

Chapter 15