

## CHAPTER 1

# Introduction

The move to middle school in our work on differentiated literacy instruction was probably inevitable for us. Our school-based partners demanded it. When we first took on this project, in 2019, Sharon Walpole was Director of the University of Delaware's Professional Development Center for Educators (PDCE). PDCE's mission was content-area-specific service to teachers and administrators in the state of Delaware, and outside the state as resources allowed. We designed and provided professional learning and extensive coaching support for teachers and leaders. Much of our literacy team's work was tied to *Bookworms K–5 Reading and Writing* (BWK5), an elementary school curriculum authored by Sharon and published by Open Up Resources. PDCE had plenty of work with BWK5; schools were adopting it and wanted expert assistance. Eventually, research on BWK5 revealed that it was having a powerful effect on student achievement (May et al., 2024), so adoptions and requests for help continued. The move to middle school starts with a story.

### A DESIGN OPPORTUNITY

The Delaware Department of Education (DDOE) had been proactive in its inclusion of secondary teachers for professional learning tied to understanding the shifts required by state adoption of the Common Core State Standards (CCSS; National Governors Association Center for Best Practices & Council of Chief State School Officers [NGACBP & CCSSO], 2010). DDOE leaders did not want English language arts (ELA) classes to bear alone the burden of increasing text difficulty, diversifying text genres to include more informational text, and teaching students to write about what they read. They wanted to build text use in *all* content areas. DDOE hired Sharon Walpole and colleague Bill Lewis (a secondary English teacher educator at University of Delaware) to design a year-long professional learning experience for cross-content teams of secondary educators and administrators. It was a chance

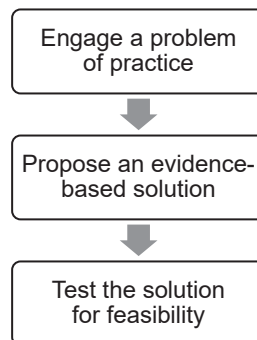
to craft a new real-world solution—a solution consistent with research and reasonable in practice. The process that had served Sharon well in the BWK5 design and inspired multiple books on differentiated instruction and literacy coaching is represented in Figure 1.1.

The CCSS did present a new problem, but the new problem overlaid an old one in secondary schools. Adolescent literacy achievement has been weak and stagnant nationally, and our experience working with middle and high school teachers revealed that they did not engage students in much reading or writing at all. They read to students. They told students about text content. They replaced written text with videos and movies. Our personal observations are consistent with published descriptions of middle school instruction: minimal instruction, very little student reading of connected text, and almost no peer-to-peer engagement (Wexler et al., 2023).

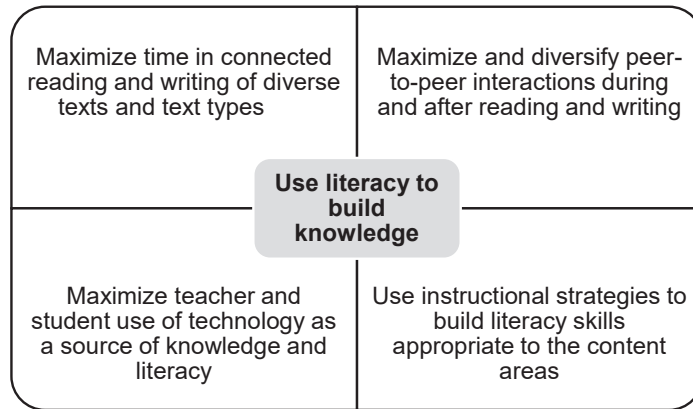
Sharon and Bill had their work cut out for them, and the structure of the professional learning was optimum. Teams were funded to spend a full day each month away from school. They spent half of that day together with Sharon and Bill learning something new and then the rest of the day planning together to implement it. The next month's session began with them sharing successes and challenges before considering a new idea. The design allowed learning to be reciprocal. Sharon and Bill brought information from various fields of educational research. The participants brought information from their ongoing implementation trials. Together, they were testing and retesting ideas.

A core problem that teachers were reporting over and over was that students had insufficient background knowledge to read challenging text. That was their rationale for spending so much instructional time teaching students content orally. We knew that we had to listen to this concern and propose a solution that was acceptable to the teams. We started by sharing a vision. The core problem we needed to solve was content-specific knowledge building (see Figure 1.2).

Looking back at that vision now, it is a simple theory of change. The distal goal is that we show teachers and students that it is possible to use literacy (reading and writing and listening and speaking) to build knowledge. We believed then (and still do!) that a core purpose of schooling is to equip students with the skills and dispositions to read and write to learn things they want to learn. What researchers can bring to the table are instructional routines—evidence-based procedures that have been developed and tested. These



**FIGURE 1.1.** The design process.

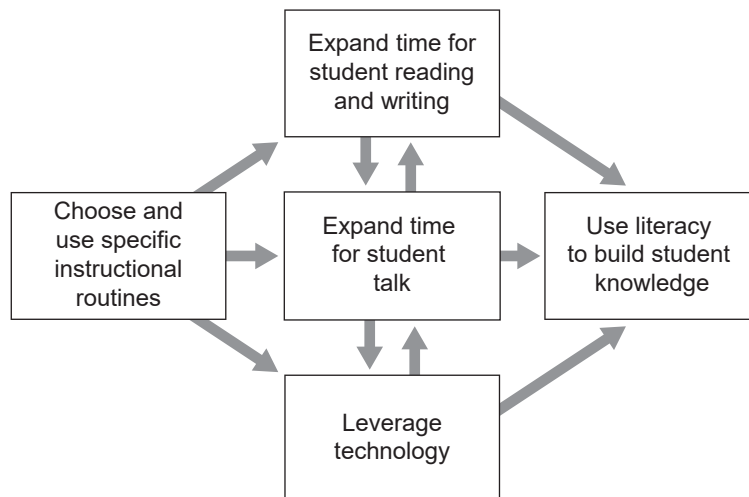


**FIGURE 1.2.** Vision for middle school and high school curriculum design.

procedures are only useful if they change the use of time during class, change the balance of teacher and student talk, and leverage technology to provide access and interaction. And they are related. If students read and write more, they have more to talk about. If they talk more, they may be more inclined to consider new ideas and interpretations when they read. But the devil is always in the details. The details, for us, come from research that is tested in real-world classrooms. Figure 1.3 reframes that initial vision.

## THE NEED FOR EVIDENCE-BASED KNOWLEDGE BUILDING

This knowledge-building goal may have been more novel when we first proposed it, but it is ubiquitous now. The call for knowledge-building curriculum materials is powerful in the



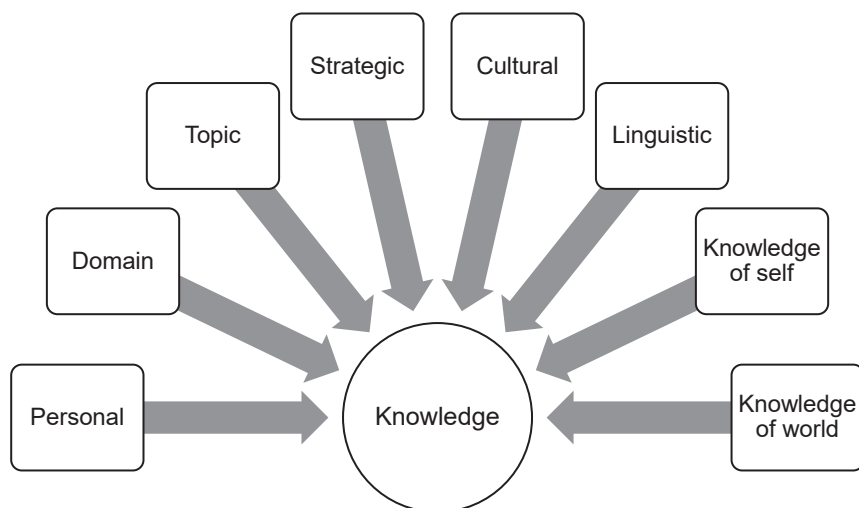
**FIGURE 1.3.** Simple theory of change for curriculum design.

literacy and policy communities. It addresses a different real-life problem of practice. Knowledge building, at its core, is a contrast to skill building. Knowledge building advocates call for teachers to make sure that they are attending to the wide and deep sciences of literacy (see, e.g., Knowledge Matters Campaign Scientific Advisory Committee, 2024). As university-based authors, we embrace a particular emphasis on bringing research to practice through our design work. That means we must keep a multifaceted vision of knowledge building at the forefront and seek evidence-based routines that we can weave together to achieve it.

The crux of the argument for knowledge building is that the more you know, the easier it is to read or write about something. Researchers often call this prior knowledge. When you read and write about something, you build knowledge that you can draw upon to make your next literacy task easier. The system is self-fueling. The better you are at reading and writing, the more you will do it, increasing your opportunities to gain knowledge and making future reading and writing easier and more enjoyable. Unfortunately, opportunities to get good at reading and writing and to build knowledge in other ways are not equally available to children at home. So, we *must* maximize opportunities for both in school.

This argument is not merely pragmatic. It has a theoretical base, one that we have always used to ground our work. Kintsch (1994) proposed a definition of text comprehension as construction and integration. He proposed that no text can be understood based on its words alone. A reader has to use those words, along with other internal cognitive resources, to construct understanding. The process begins with a text base, created by establishing basic relationships among words. The text base is expanded by the reader's knowledge and inferences. The comprehension that results is a combination of the author's input and the reader's active prior knowledge contributions.

In a recent review on the topic of prior knowledge, Hattan et al. (2024) identified the complex facets of prior knowledge. It is the whole of an individual's knowledge. Figure 1.4 identifies the types of knowledge researchers have investigated. Personal knowledge could be



**FIGURE 1.4.** Types of knowledge that influence text comprehension.

the knowledge an individual has gained from experience. Reading a novel set in Montana is easier if you have traveled in Montana or seen movies set there. Domain knowledge is understanding of the tools that individuals in a particular area use. Reading a novel that begins with foreshadowing is easier for a reader who recognizes that tool right away and interprets what comes next based on the foreshadowed outcome. Topic knowledge is easy to conceptualize (and unfortunately can serve as a false representation of all knowledge). Reading a science text about birds is easier if you already know a lot about birds. Strategic knowledge is knowledge of the text structures writers use and the cognitive moves readers use when they need to refocus attention or enhance understanding. Cultural knowledge helps readers embody the lived experiences of fictional characters or interpret the emotional experiences of real-life characters, including the impacts of decisions and actions on the lives of others. Linguistic knowledge includes grammatical interpretations at the very beginning of Kintsch's text base and extends to include the impact of authors' language choices on readers. Knowledge of self can include the during-reading insight of the impact of one's knowledge and emotions on comprehension and also the wherewithal to fuel extended efforts to understand. Knowledge of the world can include the ability to place a text in its historical context and then replace it in a current one. Each of these types of knowledge can be cultivated; all have to be brought to bear to read, discuss, and write about complex ideas.

So, it is all about knowledge, and knowledge is a *big* idea.

## THE ROLE OF TEXT SETS

The solution we proposed to enact our initial vision of knowledge building in secondary schools began with text sets. We called them quad text sets initially because they started with a grade-level target text and then added three additional texts to build the knowledge required to understand it: a visual text, an accessible text (maybe from adolescent literature, maybe from current events), and an informational text. Each of the four would be read by students using a small set of before-, during-, and after-reading instructional strategies. So, we would attend to the knowledge-building problem by engaging students in more reading instead of less, potentially stoking the fire such that students would read more, build more knowledge during that reading, and use the acquired knowledge to make more difficult reading easier.

The project was successful overall, and it led a Delaware high school leadership team to ask for a site-based replication. Sharon worked another year with a literacy coach, an English teacher, a history teacher, a science teacher, and a math teacher at William Penn High School. That collaboration provided additional feasibility testing. We brought in our long-time collaborator Mike McKenna, and we documented the project in the book *Cracking the Common Core: Choosing and Using Texts in Grades 6–12* (Lewis et al., 2014). Later, Bill worked with John Strong to move our ideas from old-fashioned content area teams to more specialized disciplinary literacy applications in *Literacy Instruction with Disciplinary Texts: Strategies for Grades 6–12* (Lewis & Strong, 2021). Disciplinary literacy adds a layer of knowledge. It is the particular strategic knowledge that members of a discipline (e.g., scientists, historians) use when they read and write in their discipline.

The concept of quad text sets also grew legs, perhaps because many people became interested in the potential for knowledge building to replace skill building as an overarching goal for schooling. We connected with colleagues to write about it for *Journal of Adolescent and Adult Literacy* (Lupo et al., 2018). Sarah Lupo led another team to propose application in elementary curriculum design (Lupo et al., 2020). This text set work was identified as new research with potential implications for the instruction of adolescents (Reynolds, 2021). Sharon began thinking of an extension to the concept of the quad text set, where knowledge-building text experiences were not only used before reading a target text, but were interspersed as needed. Overarching knowledge building might be important but so might “just in time” knowledge building.

## DECIDING TO CENTER STUDENTS

The 2014 publication date for *Cracking the Common Core* is important. It was a long time ago. That’s how the story gets interesting. Nearly all the examples in that text are from high school—Bill, Sharon, and Mike had actually all been high school teachers, and the initial feasibility work happened in a high school. And nowhere in that text was the word *equity* mentioned—we searched for it. Diversity was mentioned once. It was about increasing achievement for students, and meeting a real-world need of *teachers*, but not about building relationships with or representing the identities of all *students*. By the time we began the move to middle school, a better understanding of equity and its implications was top of mind for Sharon. And that’s how she met Sara Merkle.

Sara was also a high school teacher, but she is different from Sharon. Sharon tends to lead with evidence first. Sara tends to lead with diversity, equity, and inclusion first. Always. She is also expert in literary criticism, a field very different from literacy research. That’s why Sharon recommended hiring her to join the team as an instructional specialist at PDCE. Sara could broaden the literacy team’s offerings to high school English teachers, and she could help us incorporate an equity lens in all our work.

Sara had used *Cracking the Common Core* to design text sets in her district. One of the first PDCE professional learning partnerships she led was about using that text to build capacity for leadership and coaching in a district that served a largely (70%) minoritized population of students. For a host of reasons, she couldn’t get much traction. We decided it was possible that the ideas we were championing in the book were too different from the district’s required curriculum. We observed instruction to verify our hunch. The district’s approach included units about information text. Students learned about the features of texts (e.g., headings and subheadings and illustrations and captions) and identified them in text excerpts. They read (or skimmed) to find things, not to build knowledge, and the text features they were learning in middle school were actually covered in the early grades in BWK5. We met with leaders to propose that, instead of a *Cracking the Common Core* book study, we would curricularize its ideas to create a new module for the district’s teachers. So, that’s the story. That’s why and how we moved to the middle.

The text we selected for the move proved seminal. We wanted a high-quality narrative featuring adolescent characters. We wanted a text that would require knowledge building,

so we could weave in informational texts and sets of texts to build knowledge that would help students understand the narrative. We wanted something that would spark intense discussions—including discussion about race and equity. Sara suggested *Lizzie Bright and the Buckminster Boy*, by Gary Schmidt. The novel is set in 1912 and fictionalizes a real event in Maine. White settlers removed forcibly a self-sufficient community of Black settlers from a coastal island, ostensibly to develop the island for tourism—although they never succeeded in that development. The main characters are a White pastor’s son from the mainland and a Black girl from the island who become friends. The novel was recognized as both a Newberry Honor Book and a Printz Honor Book. Sharon read it, and it was on. Sara and Sharon would move to the middle.

At the same time, Sharon was getting pressure from districts using BWK5. Administrators knew that they were moving their fifth-grade students with hard-earned reading achievement and expectations about routines and about reading and writing volume into sixth-grade classes that were text deserts. They wanted to know what Sharon was going to do about that. Sharon really began thinking at scale. How can we leverage student motivation and achievement as students make the move to middle school? How can we make a *Bookworms* experience that is a step up from the routines in grade 5? How can we build an infrastructure for instruction that convinces teachers that giving students more challenging work is the best way to improve their achievement? How can we build in differentiation and support that makes sense in the middle school environment? We called the work *Bookworms Middle School* (BWMS).

This middle school project has been an extensive, extended collaboration. While earlier versions of BWMS included contributions from several colleagues at PDCE, the most recent iteration was written by a four-person team. In addition to Sharon Walpole and Sara Merkle, two partners expanded our skill set. Aleta Thompson is a twice-retired educator from Delaware whose commitment to writing instruction is broad and deep. She also has high school teaching experience and extensive experience in providing professional support in middle school and high school as an instructional specialist at the PDCE. Her love of drama and student collaborations helped us build drama units and expanded our vision for Culminating Tasks. Ajita Mishra brought her experience as a teacher of multilinguals of all ages and in different countries. She has a strong background in linguistics and in the social justice and cultural issues that make reading and writing meaningful. The four of us worked together nearly daily for 2 years, and weekly for a third.

We have now entirely rewritten our initial module centering *Lizzie Bright and the Buckminster Boy* four times. Sara earned the title Dr. Sara Merkle with that work in 2024. It is embedded as one of 12 modules in a comprehensive curriculum: BWMS. As long as we have been writing and rewriting, our latest drafts have been in use in schools. The process has not been straight forward. We have designed instruction for full texts, tried them out with our piloting partners, and revised them. We have built instructional routines and rebuilt them. We have incorporated feedback from the field and from curriculum experts.

Along the way, we have learned much about equity and much about literacy. We know we have much more to learn. Seven years in, we are ready to share what we have learned so far. Our goal is for you to understand better the design of our middle school modules so that you can use or adapt them “productively” (Troyer, 2019) or so that you can replicate

our planning processes with texts of your choosing. We will describe our processes and also give you access to two of our modules: the sixth-grade module for *Lizzie Bright and the Buckminster Boy* and the eighth-grade module for *Patient Zero: Solving the Mysteries of Deadly Pandemics* (Peters, 2021). You can access those two modules at [guilford.com/walpole-modules](http://guilford.com/walpole-modules).

