

Introduction



Elements are the fundamental building blocks for all matter in the world. Elements are also the building blocks of what matters most. Using high-quality instructional materials well matters for students. Effective professional learning to support curriculum implementation matters for teachers. What are the elements of curriculum-based professional learning—the subject matter of this book—that produce desired outcomes for teachers and students? This book is meant to answer this question by focusing on the design features and enabling conditions that are elemental and matter most for curriculum-based professional learning.

Curriculum Implementation as Learning

For too long and in too many cases, investments in professional learning have failed to achieve their intended outcomes. Many educational leaders and policymakers have lost hope and looked for other solutions to support students. But as studies consistently show,¹ the greatest indicator of a student's success is the quality of teaching experienced every day. Any plan for better serving students must work for teachers and meet their needs too. There is no simple or silver-bullet solution. Fortunately, in the last several years, emerging research² has demonstrated the value of providing teachers with high-quality educative instructional materials. Upon further examination, we learn that high-quality curricula alone are not the answer. Lacking support and pressure to use these types of curricula well and in ways they were intended, teachers can ignore, adapt, or attempt implementation with mixed outcomes. As a result, both high-quality instructional materials and curriculum-based professional learning will position schools and systems to achieve their dual goals of equity and excellence.

Simply introducing a new curriculum is unlikely to change teacher practices. Research shows that curriculum reform is accomplished through a systemic approach that requires new instructional materials and new

ways of using them.³ Putting curriculum reforms into practice is a difficult and demanding process that requires a vision for instructional reform, support for change, collaboration among teachers to learn, and leadership at multiple levels. Reform-oriented “educative” instructional materials incorporate contemporary research on how students learn content and challenge teachers to think differently about learning and teaching disciplinary content knowledge. Teachers who are unfamiliar with such curricula want relevant professional learning to help them implement educative instructional materials effectively.

Educative instructional materials challenge teachers to think differently about learning and teaching content. Instead of a textbook that provides only “what to teach,” these instructional materials also provide support for “how to teach.” Because incorporating support for teaching into instructional materials makes them different and educative for both student and teacher learning, most teachers benefit from a rich form of ongoing professional learning that helps them learn how to use such materials effectively. This type of professional learning is grounded in immersive learning experiences for teachers where they experience as learners the new instructional materials in ways that mirror their intended use with students.

A Vision for Improvement

High-performing educational systems recognize the importance of strong instructional support systems to achieve equity for all students. They adopt compelling instructional visions including college- and career-ready standards and provide teachers with educative instructional materials and effective professional learning focused on transforming their beliefs and practices relevant to teaching and learning. They develop a local improvement infrastructure that includes resources and people (including the expertise of both administrators and teachers as well as intermediary organizations) that are positioned to improve the system. To obtain access to these resources and provide the pressure and support for sustained change, many partner with nonprofit organizations with expertise in professional learning, school improvement, instructional design, disciplinary content, and curriculum development.

How are high-performing systems, charters, and schools able to accomplish such heavy lifting? To learn what they have in common, in 2019 Carnegie Corporation of New York⁴ invited a group of grantees who are leading professional learning providers and curriculum developers to bring school system partners to a convening that revealed the shared

characteristics of these transformations. We wanted to learn the key components of curriculum-based professional learning. Over the course of two days and through follow-up conversations and interviews as well as a deep dive into the literature and research on curriculum implementation and professional learning, we asked questions, listened closely, and learned.

What Is Curriculum-Based Professional Learning?

This work resulted in a core set of research-based actions, approaches, and enabling conditions that effective schools and systems have put in place to reinforce and amplify the power of high-quality curriculum and skillful teaching. We call these the *Elements of curriculum-based professional learning*, or simply the *Elements*.

Curriculum-based professional learning focuses primarily on the implementation of high-quality instructional materials. Curriculum-based professional learning is anchored in the instructional materials teachers will use with their students. High-quality educative curriculum materials address both the content and the pedagogy necessary for effective instruction; curriculum-based professional learning offers the immediate and sustained support for successful implementation.

The *Elements* encompass actions big and small, from purposefully planning an immersive learning experience to orient teachers to using new instructional materials to mapping a three-year plan for ongoing support to sustain curriculum implementation efforts. The *Elements* offer a framework for practitioners looking to undertake this work. They also serve as a call to action. This powerful approach to curriculum reform and professional learning knits together two influential aspects of a child's education: teachers' skillfulness and the quality of the instructional materials teachers use to support student learning. By reshaping current practices with the *Elements* as a guide, we can help teachers further develop the skills, knowledge, and understanding they need to achieve their goals of equity and excellence for all students.

Purpose of the Book

The book is intended to help educators gain new knowledge regarding the importance of curriculum-based professional learning as well as the

related field of high-quality educative instructional materials. We hope this information will promote deeper understanding and appreciation of the *Elements* of curriculum-based professional learning. Throughout the book we help readers examine and analyze how curriculum-based professional learning differs from traditional professional learning and the key shifts in practice it demands. A deeper understanding of the *Elements* of effective curriculum-based professional learning positions readers to critique adult learning experiences through a new lens and consider changes for the future. And finally, we offer readers role-related responsibilities and next actions for consideration.

We wrote this book during the COVID-19 pandemic, a time of great challenge as well as learning for the United States. While all students faced obstacles, those already underserved faced even more. Many organizations including the Learning Policy Institute called for an evidence-based, equity-centered approach for strengthening outcomes for all students.⁵ School systems were encouraged to focus on the instructional core—the set of key relationships among teacher, student, and instructional materials that propel student learning day to day and fuel improvement over time. Expanded definitions of the instructional core included parents and caregivers as key partners in student learning.⁶ The presence and availability of high-quality, tech-enabled instructional materials made these priorities easier to address. Innovative solutions were tested, and practices adjusted based on findings. Some of these learnings from the pandemic apply to the subject of this book—curriculum-based professional learning—which we identify and address throughout the chapters.

What We Know About Professional Learning

- Most professional development rarely achieves substantial positive impacts on teacher performance or student outcomes.⁷
- A broad gap exists between the short-term, isolated experiences that typify professional development and the ongoing, content-focused, job-embedded professional learning that can help teachers and their students excel.⁸
- Even when learning is focused on a particular content area, it tends to be short-lived, with most teachers participating in no more than sixteen hours of activities—on the order of a seminar or two—in a year.⁹

- Just 7 percent of the nation’s elementary school reading teachers use at least one standards-aligned instructional tool in classroom instruction.¹⁰
- More than half of U.S. teachers craft curriculum for their students, either by borrowing from multiple sources or by creating their own materials.¹¹
- Using better instructional materials boosts student outcomes just as much as having a better teacher at the front of the room.¹²
- When teachers participated in curriculum-based professional learning, their students’ test scores improved by 9 percent of a standard deviation—about the same effect caused by replacing an average teacher with a top performer or reducing class size by 15 percent.¹³
- See Chapter 1 to learn more about the implications of this research.

Values Shared by the Authors

We wrote this book because of concerns and values we share. We are concerned that too little progress has been made in the field of professional learning in the last decade. And yet we see tremendous promise that developments in the specific field of high-quality instructional materials and curriculum-based professional learning can accelerate K–12 education toward the goals we want for educators and students. Supporting teachers to use new curriculum needs to be less about “training” and more about “learning.” We believe in the simple idea that teachers will benefit most when their learning is anchored in the instructional materials they use with students, and they experience the inquiry-based learning we expect them to provide for their students. We believe our greatest opportunity to achieve equity is through teachers who are empowered with and prepared to help all students achieve challenging college- and career-ready standards. Finally, we believe in the power of leadership, instructional vision, and commitment to make curriculum-based professional learning a reality for more educators.

Our vision of professional learning uses curriculum as both a lever and a guide, helping link teachers’ actions and ideas to new standards in a concrete, focused way. Done right, curriculum-based professional learning can close the gap between the experiences we provide teachers and those we want them to provide students. Given the challenges teachers and students faced as they learned to adapt to remote instructional

platforms, such learning is especially crucial to their success. We have the opportunity to transform teaching by providing teachers with high-quality, standards-aligned instructional materials and supporting them with curriculum-based professional learning.

The Audience for This Book

The book is written for K–12 educators and stakeholders. Teachers and school-based coaches may use this book to deepen their understanding of the essential components of successful curriculum implementation. They may use it to guide their own planning and learning agenda as well as the support they may seek for successful implementation. School systems as well as experts in curriculum development and professional learning coordinators, consultants, and administrators are often the individuals with the greatest responsibility for reviewing, designing, and implementing curriculum-based professional learning with educators. Each detail of this book can guide these actions. Principals and school system leaders with authority and responsibility will want to focus on the last three *Elements* or essentials for they offer the conditions for achieving the potential impact of the investment in curriculum-based professional learning. Oversight responsibility for the other ten *Elements* is also a key responsibility, and suggestions for managing it are embedded throughout the book. The final chapter elaborates on the roles and responsibilities as well as ways in which to introduce the *Elements* into a school or system. Of course, other stakeholders can benefit from reading the book and considering implications for their work with educators including faculty in teacher preparation programs, state agency policy and program administrators, technical assistance providers, foundations, and other policymakers including local school board members.

Key Definitions

This book uses several terms that are not always commonly shared by the education field. We offer the following definitions to help readers understand our perspective and approach to this important endeavor.

- A **curriculum** is the design teachers use to plan, implement, and assess the learning outcomes for students.
- A **high-quality curriculum** includes standards-aligned instructional materials that teachers use, as well as resources that states and districts provide to support instruction, such as state standards, frameworks, scope and sequences, district instructional guidance, and interim assessments.

- **Instructional materials** and **curriculum materials** refer to the concrete resources that teachers use to provide standards-aligned learning experiences for students, as well as those that offer support and guidance for teachers on how to teach the materials.
- **High-quality instructional materials and curriculum materials** include specific learning goals and sets of detailed lessons and unit plans aligned to content standards, student-centered approaches to inquiry-based learning, research-based teaching strategies, teacher support materials, and embedded formative assessments to effectively help teachers implement coherent instructional units and courses that are organized around a clear scope and sequence.
- When high-quality instructional materials and curriculum materials support both student and teacher learning, they are considered **educative curriculum materials**.

Organization of the Book

We follow a similar pattern in each chapter. We begin and end with reflective questions intended to focus readers on the status of their current efforts related to curriculum implementation and curriculum-based professional learning. These questions may also serve as a status check as well as guidance for next steps. The narrative of each chapter begins as well as ends with an actual story about curriculum implementation in an American school system. These stories are meant to illustrate what the *Elements* can look like in action. Through a diversity of stories including geography, subjects, and grade levels, we hope all readers find components that resonate and motivate toward the importance of this work. Following each story is a thorough analysis of one or more *Elements* including attention to definitions, evidence, research, and distinctions from more traditional professional development. Reflection questions strategically placed within each chapter are intended to promote further consideration and application.

The first three chapters of the book introduce the reader to curriculum-based professional learning, the shifts required in practice, and an overview of the *Elements*. Most of the *Elements* focus on design features addressing the purpose and substance of curriculum-based professional learning. Design features are intended to guide designers, facilitators, and decision makers responsible for planning and implementing curriculum-based professional learning that supports teachers as they

use high-quality instructional materials. These *Elements* are organized into three key components:

- Core Design features,
- Structural Design features, and
- Functional Design features.

Chapter 4 describes three **Core Design features** focused on the purposes of curriculum-based professional learning. Chapter 5 describes three **Structural Design features** that are the parameters or settings for professional learning. And Chapter 6 describes four **Functional Design features** that inform how teachers experience curriculum-based professional learning. Chapter 7 describes the last three *Elements* or **Essentials** that act as enabling conditions and define specific expectations of system leaders, principals, and teachers for implementing curriculum-based professional learning. Chapter 8 focuses on putting the *Elements* into action and describes the roles and responsibilities of teachers and school-based coaches; professional learning providers, curriculum developers, and district curriculum coordinators; and system and school leaders.

How to Use This Book

We can imagine educators using this book for independent learning or group-organized learning. We can see educators engaging in study groups to consider its ideas and whether to enact them. We can imagine its usefulness in leadership preparation programs as well as certifications for master teachers, instructional coaches, curriculum designers, and professional learning facilitators. We hope that educators will see it as a valuable resource that they will return to often when different situations surface that they recall are discussed within this text. We hope foundations and policymakers find it useful in launching new conversations regarding their investments and policies that can be leveraged to advance the ideas we present. And finally, we hope that researchers find components worthy of additional study and ultimately contribute new understandings to an expanded and well-documented field of curriculum-based professional learning.

Closing Thoughts

Teachers' jobs are changing in real time. Our commitment to equity and excellence, teachers, and students in all schools has never been more important. Over the past decade, college- and career-ready standards

have dramatically shifted our expectations for student learning. It's no longer enough to raise a hand and give the right answer. Instead, we want students to wrestle with complex problems, collaborate with one another, and investigate and apply information in creative ways.

This is not how most teachers learned when they were in school. It is not how most teacher preparation programs develop adults to lead a classroom. And it looks nothing like the seminars that dominate teachers' professional development experiences. Most often, the emphasis is on creative lesson planning and keeping students engaged. While that can contribute to better teaching, it keeps the focus on the adult in the room. That focus needs to change.

School board members, parents, education stakeholders, and all educators have a vested interest in the success of all students. And many witnessed throughout the pandemic one thing that is clearly supported by research: curriculum has a direct impact on student engagement and learning. The instructional materials that teachers use with their students can dramatically accelerate or hamper learning. Equally important is the way in which teachers use curriculum including the involvement of families and caregivers to support learning. Curriculum-based professional learning presents a unique opportunity to enhance the efforts of hardworking teachers: provide them with strong, high-quality, standards-aligned curriculum and make sure they know how to take advantage of everything it has to offer.

This book identifies and describes the *Elements* of effective curriculum-based professional learning, including how these *Elements* are being used to positively affect schools across the country. And it challenges school and system leaders, curriculum developers, and all specialists in professional learning to apply them. Teachers deserve the highest-quality professional learning to support the implementation of new instructional materials and high-quality curriculum. The *Elements of curriculum-based professional learning* provide essential guidance for transforming teaching and student learning.