

INTRODUCTION

The need for a cohesive and comprehensive curriculum that intentionally connects standards, instruction, and assessment has never been greater than it is today. Educators across the nation need to be able to answer this question at any point during each school year: “How well are my students doing in their efforts to learn the state standards?”

A rigorous—and relevant—curriculum must provide educators with an organized framework that enables them to continually monitor student progress toward mastery of the standards. This curriculum design model should also serve as a predictor of student achievement success on end-of-year standardized tests. By consistently focusing on intended learning outcomes and assessment evidence of student learning, educators can adjust their instruction based on student learning needs. They can better utilize available instructional resources to help all students learn their grade-level or course-specific standards.

THE NEED FOR A ROAD MAP

For educators to meet the challenging learning needs of students—comprehend all the standards, prepare for a variety of formative and summative assessments, and demonstrate proficiency on high-stakes external exams—they must have a clear road map to follow throughout the

school year. Such a road map must offer busy educators an overall organizational plan to meet these needs, a plan that

- Clearly specifies standards-based student learning outcomes
- Includes the different categories of high-effect-size instructional strategies: differentiation (additional supports for all students that also include strategies for enrichment), intervention, and those most appropriate for special education students and English Language Learners
- Offers engaging learning experiences—authentic performance tasks—that represent relevant, real-world problems where students can *apply* their learning, *in addition to* the more traditional types of textbook- or program-based learning activities
- Provides an *aligned* set of assessments to gauge student progress before, during, and after each instructional unit of study
- Includes enough detail in the unit design to support the writing of weekly plans and the designing of daily lessons

This comprehensive road map needs to present new teachers with a detailed structure and pace to follow, and experienced teachers with a flexible framework within which to apply their expertise. Essentially, it must offer all teachers a collaborative model for creatively planning and delivering an accessible and user-friendly curriculum that collectively addresses these multiple requirements.

A ROAD MAP READY TO FOLLOW

This second edition of *Rigorous Curriculum Design* reintroduces a carefully sequenced, hands-on model that curriculum design teams and educators in every school system can follow to create a progression of units of study that keep standards, instruction, and assessment tightly focused and connected. Applicable to every grade, course, and content area, this new volume describes and illustrates

- What a rigorous—and relevant—curriculum *is* and how to create, sequence, and pace such a curriculum

- How to build the *foundation* for designing a rigorous Pre-K–12 curriculum
- How to design a grade- or course-specific curricular unit of study, from start to finish
- How to use formative assessments and data analysis to guide instruction before, during, and after each unit
- How to monitor student progress toward desired learning outcomes throughout the year
- How leaders can organize, implement, and sustain this model throughout the school and/or school system

WHY A SECOND EDITION?

In 2010, Larry wrote *Rigorous Curriculum Design* to assist school districts in need of revising their outdated curricula. Because its publication that year also coincided with the release and rapid adoption by nearly all states of the Common Core State Standards (CCSS) in English language arts and mathematics, numerous school systems across the US selected the RCD framework to guide their K–12 educators in the creation of *all-new* curricula aligned to the CCSS.

In Oregon’s McMinnville School District, Larry worked closely with Kyra Donovan, a central office administrator whose role it was to oversee curriculum, instruction, and assessment for McMinnville and lead their K–12 educators through the multistep process of creating rigorous curricular units of study directly aligned to the CCSS. With the unflagging support of district superintendent Dr. Maryalice Russell, Kyra oversaw the highly successful implementation of this work for the next seven years. In her current role as director of professional learning for the International Center for Leadership in Education, Kyra has continued to assist school systems across the country in effectively implementing the RCD framework.

Partnering to coauthor this second edition of *Rigorous Curriculum Design* in 2019, we have kept the original framework essentially unchanged, owing to its continually proven effectiveness in school districts across the US. However, updates and enhancements to the process gained through nearly a decade of leading RCD workshops nationwide made a second edition both practical and

highly beneficial to those already engaged in the revision of their curricula as well as those just beginning the journey of doing so.

Updates and new additions to this second volume include the following:

- Standards examples illustrating each step without reference to the Common Core so that the model is applicable to every state's unique set of learning standards
- Clarification of the term *rigor* and its important role in curriculum design
- An important new focus on *relevance* in the design of rigorous curricular units of study, meaning the inclusion of real-world problems that are both predictable and unpredictable, situations that afford students the opportunity to apply their learning in realistic contexts
- Another key aspect of *relevance*—educators making learning relevant for students by providing them with *choice*: choice of texts to be read and analyzed, choice of problems to solve using skills and concepts being learned, choice to apply their learning to a topic they personally care about
- Emphasis on creating a rigorous and relevant curriculum where the teacher facilitates student learning of the Priority Standards (rigor) while students are actively engaged in “doing the thinking and learning” within a real-life application (relevance)
- The Rigor/Relevance Framework to complement the RCD design framework
- Expansion of content to include “lessons learned” by school and district leaders who are in years 1, 2, 3, and beyond of RCD implementation
- Success stories from school systems that have implemented the RCD framework and experienced improved student learning on state exams

WHAT EXACTLY IS RIGOROUS CURRICULUM DESIGN?

Often confused with the true goal of student learning—attainment of the standards—curriculum is not the end in and of itself. Rather, it serves as the means to the end. What's unique about the RCD framework is that it is a

standards-based framework that enables educators to answer in the affirmative this fundamental question: “Are my students learning the standards?”

In this second edition, we are defining a rigorous curriculum as follows:

A rigorous curriculum is an inclusive set of intentionally aligned components—clear learning outcomes with matching assessments, engaging and relevant learning experiences, and high-effect-size instructional strategies—organized into sequenced units of study that serve as both the detailed road map and the high-quality delivery system for ensuring that all students achieve the desired end: the attainment of the designated grade- or course-specific standards within a particular content area.

Our vision for designing such a curriculum is founded on two basic requisites: (1) the intentional alignment between standards, instruction, and assessment, and (2) the inclusion of both rigor *and* relevance in the design process.

Curricular architects must acknowledge that the function of a rigorous curriculum is to *raise the level of teaching and learning* so that students are prepared for the future with skills that “drive knowledge economies: innovation, creativity, teamwork, problem solving, flexibility, adaptability, and a commitment to continuous learning” (Hargreaves & Shirley, 2009).

A comprehensive curriculum that is both rigorous and relevant needs to include the following:

- *Specific* learning outcomes that students are to achieve from pre-kindergarten through grade 12 in all content areas
- *Vertical alignment* of those learning outcomes (grade to grade, course to course) in curricular frameworks
- *Quality* units of study, defined by us here as “a series of lessons, learning experiences, and related assessments—*intentionally aligned to* specific Priority Standards and related supporting standards—for an instructional focus that may last anywhere from two to six weeks”
- Emphasis on standards-based skills *and* content knowledge
- Academic vocabulary specific to each content area and pertinent to each unit of study

- Explicit linkages to state assessments and to college and career readiness
- Higher-level thinking skills
- Interdisciplinary connections
- Authentic and relevant student-centered performance tasks that engage learners in applying concepts and skills to the real world
- Ongoing formative assessments to gauge student understanding
- Sequencing of “learning progressions” (Popham, 2008; Heritage, 2007), the conceptual and skill-based building blocks of instruction
- High-effect-size teaching strategies
- Differentiation, intervention, special education, and English Language Learner strategies to meet the needs of *all* students
- A common lexicon of terms (curriculum glossary) to promote consistency of understanding
- Embedded use of resources and digital tools
- A parent communication and involvement component
- A curriculum philosophy that is compatible with or a part of the school system’s mission statement

WHERE ARE YOU NOW?

In the coming chapters, we propose a realistic approach for designing a curriculum that achieves ambitious—rigorous—outcomes. But before beginning this process, you may want to consider conducting your own needs assessment to determine your current state of readiness.

We encourage you to schedule an orientation session to discuss the scope of the work with those who will be involved in organizing the curricula revision project. Reflect on the curricula you currently have in use to determine your starting point. This will help in clarifying why you are revising your curricula, what needs doing, and how you plan to author the units of study. Sample questions you may want to ask include the following:

- What is our curriculum philosophy? Does it reflect our school system’s mission statement and provide the “ways and means” for fulfilling our educational mission?

- What is the current state of our existing curricula? Are all content areas in equal need of revision, or do we need to prioritize them? Which ones must come first?
- Why should we consider revising or updating these curricula now?
- Do we have the necessary resources (time, personnel, budget) and the committed support of leadership (system level and school level) to begin the work and see it through to completion?
- What do we want our revised curricula to be and do? For example, if our curricula were indeed more rigorous, more engaging, and more relevant to *all* students, what would the impact be on their day-to-day motivation and achievement?
- What should the various components of our curricula include?
- What do we want to retain from our existing curricula? What do we want to add or revise?
- What kind of structure, template, or framework will we use? Should it be content-area specific, grade-span specific, or more universal, to promote consistency across the school system?

Answering these and other group-generated questions *before* beginning the actual creation of curricular units of study will provide a helpful and realistic look at current conditions and various viewpoints that organizers are wise to consider in advance of launching the project.

BUY IT OR BUILD IT

Designing or redesigning curricula is a major undertaking. In preparing to embark on this journey, school systems may investigate commercially produced “turnkey” curricular programs that promise to save school systems the time, effort, and resources required to create their own. But such component-rich programs are expensive to buy and require in-depth professional development for educators to thoroughly understand the program and use it effectively.

For school systems that lack the necessary resources to purchase a costly program and/or that strongly believe that the educators and leaders within

their own system should be active participants in the custom design of their own rigorous curricula, this book is meant to provide a straightforward, do-it-yourself guide for doing so. We feel confident that as your design teams proceed through the RCD process, everyone involved will ultimately come to the realization that you could not buy anywhere what you are building together.

ESTABLISHING THE WHY

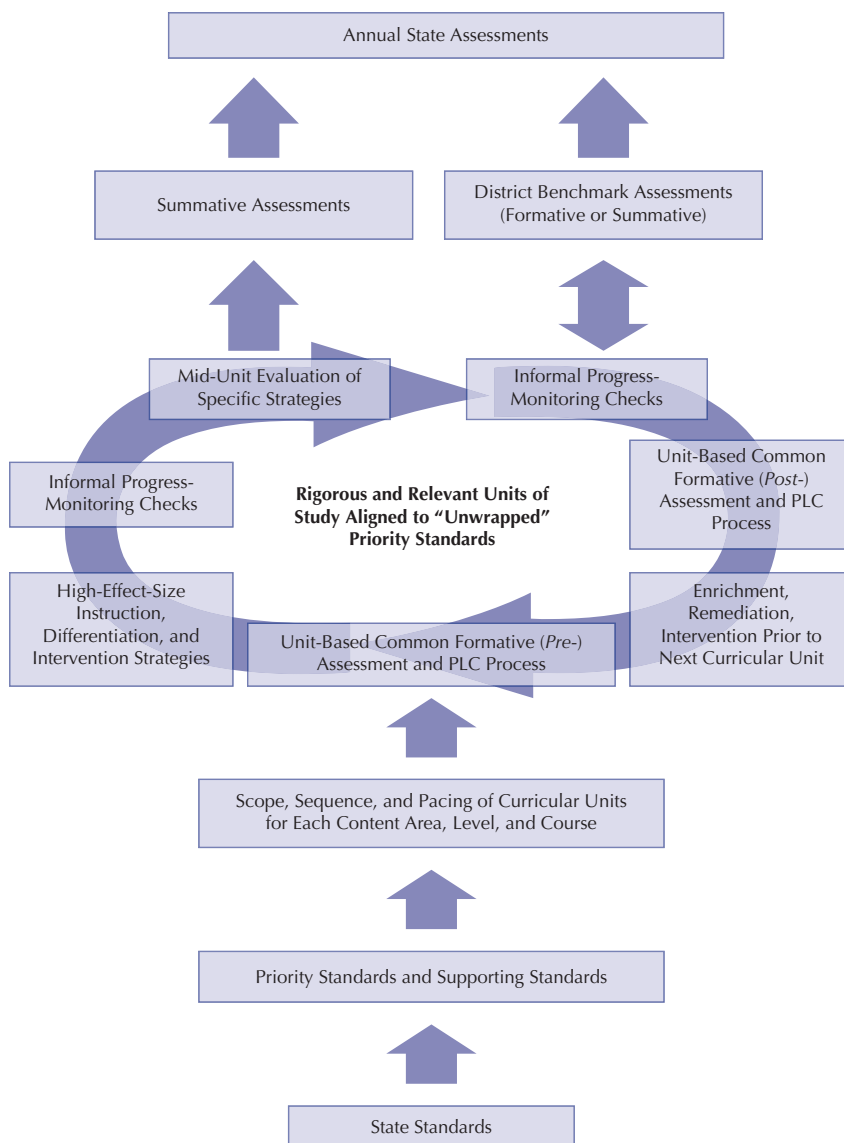
One question we hear regularly from educators and leaders attending our professional learning sessions is, “How do we interest and involve colleagues who are resistant to adding anything more to their plate?”

We can do much to ease the burden educators often feel, by helping them understand *why* we are committing to this new project and *how* it fits in with what we are already doing.

In Kyra’s experience introducing this project to educators and school leaders, she has found it critical to focus *first* on the why, the purpose of the work, and how it will benefit *students* with clear learning outcomes and how to achieve them, and how it will benefit *teachers* with the clarity and focus on what to teach, when to teach it, and how to assess student achievement.

The other vital element in establishing the why is to present everyone with the “big picture.” When educators can see how everything is intentionally connected to everything else, and why each curricular component needs to be a part of the whole—*before* we expect people to get involved—then things start to make much more sense to those whose initial reaction to anything new may understandably be resistance.

To emphasize understanding the why, we’ve included a big-picture diagram to illustrate the intentional connections between the specific professional practices that educators and leaders are implementing to improve student achievement. This big-picture diagram, shown in figure I.1, has served as a great focal point for professional discussions.

FIGURE I.1 Rigorous Curriculum Design Alignment Chart

PUTTING IT ALL TOGETHER—THE DIAGRAM EXPLAINED

The alignment diagram in figure I.1 represents the curriculum design and implementation process visually. Curriculum design teams create curricular units of study for educator use by following a detailed sequence of steps. This sequence ensures the intentional alignment among standards, instruction, assessment, and data analysis. The resulting units of study, when well-implemented by participating educators, are sure to improve academic outcomes for all students.

For example, the foundational steps necessary for building the units include prioritizing standards, assigning them to units of study, and determining a pacing calendar. The actual design of each individual unit includes “unwrapping”^{*} of the Priority Standards, writing Big Ideas and Essential Questions, creating pre-assessments and post-assessments, planning engaging and relevant learning experiences, and selecting appropriate instructional strategies to meet the learning needs of all students.

The RCD process also recommends the intentional alignment of in-school assessments *for* learning to district benchmark assessments and summative assessments *of* learning, and then extending that alignment further to external state exams. In this way, each level of assessment provides teachers with *predictive value* of how students are likely to do on subsequent assessments, and it does so *in time* for them to provide students with what Tom Guskey calls “corrective instruction.” This represents the best use of assessment data—to diagnose student learning needs in order to make appropriate instructional changes.

The diagram also previews the sequence of steps that educators will eventually follow in instructional professional learning communities (PLCs) to administer each of the units and assess student progress to gauge the effectiveness of the targeted instructional strategies they are using. Even though the PLC process is not the focus of this book, it is indispensable to effective curriculum *implementation*.

^{*}Please note that while we understand it’s not common practice to continually use quotation marks in this way, the treatment of “unwrapping” and “unwrapped” is consistent with Larry’s other books on the topic. We hope you’ll forgive our creative license here, especially all of the educators reading this who have a copyeditor’s eye!

Again, the purpose of this diagram is to show the big-picture connections between all the interdependent components of a fully aligned system and to set curriculum design within the larger educational context. Each of these key components will be presented sequentially in the coming chapters.

BOOK OVERVIEW

Rigorous Curriculum Design, Second Edition is organized into three parts. Here is a brief overview of each:

Part 1: Building the Foundation for Designing Curricular Units explains the five steps that must first be taken to lay the foundation on which to build rigorous curricular units of study, and provides explicit guidelines for applying each step.

Part 2: Designing the Curricular Unit of Study gives the “nuts-and-bolts” directions for designing a rigorous curricular unit of study, from beginning to end, and concludes with an overview of how to intentionally plan and administer the unit in the classroom. Formatively assessing students along the way, educators analyze resulting student data to diagnose student learning needs and then adjust ongoing instruction accordingly.

Part 3: Implementing Rigorous Curriculum Design addresses the role of administrators in beginning and continuing the work of implementation. The final three chapters of the book provide first-person narratives and advice from administrators who have personally led or overseen the creation and use of RCD within their own school systems, during the first, second, and third years of implementation.

WORDS OF ENCOURAGEMENT

We have endeavored (1) to pull together all the necessary elements for designing a rigorous and relevant curriculum, (2) to position these elements in a deliberately sequential order, and (3) to provide a step-by-step approach for constructing each element. Our hope is that this road map will not only “show

you the way” to design your own curriculum but also allow you the flexibility of customizing it to fit your own purpose and needs.

Someone once rightly said, “All grand visions come dressed in work clothes.” As is true in the pursuit of any lofty vision, it’s best to know from the outset that it will take a significant investment of time, thought, energy, and collaboration to create and revise a *single* curriculum, let alone multiple curricula. Yet it will be in the collaborative *doing* of this work that its true value will be revealed. The best advice we can offer for staying the course is to regard whatever you produce as a continual work in progress, to be accomplished over one, two, three years, or even longer.

Larry’s former colleague Robert Kuklis wisely pointed out in the first edition of *Rigorous Curriculum Design* (2010) that curriculum designers “shape and modify the process as they move through it. It is important that they know this is not a rigid, prescriptive procedure, but rather an opportunity for learning, adapting, and improving. This preserves fidelity to the process, encourages flexibility, and promotes local ownership” (p. xxii).

Whenever people’s spirits need lifting because the work seems so demanding, remind everyone that this is a *long-term process*, not a one-time event. You are creating something truly significant: a comprehensive body of work that is going to serve your educators, your students, and, by extension, your students’ parents for years to come! So “keep on keeping on.” It will be more than worth it!

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