



**Curriculum-Based
Professional Learning:**
The State of the Field

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Acknowledgements

About CPRL

The Center for Public Research and Leadership (CPRL) at Columbia University is a partnership of university-based professional schools that works to revitalize public education while reinventing professional education. Since its inception in 2011, CPRL has trained over 500 future leaders, all of whom have helped staff CPRL's research and consulting projects. CPRL's emphasis on broad community and family participation and collaborative problem-solving ensures that its recommendations, supports, and tools leverage diverse perspectives and strengths, are customizable to local communities, and promote equity and lasting change.

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“When I started seeing materials, I [thought] this is what I want to do. But this is just the floor. Curriculum was showing up at [teachers’] doors, but they had no professional learning around it. That was the message we started to give: this curriculum won’t change anything for you; it just puts you in the game, and now you have to get the professional learning...” - State Leader

Introduction

In recent years, promising open-source, high-quality instructional materials (HQIM) have presented exciting opportunities to enhance students’ engagement and agency in their learning,¹ expand access to grade-level content,² and narrow the boundaries between home and school³—all without increasing the cost that schools and districts incur for curricula.⁴ However, research suggests that curricula, on their own, can only do so much to advance student learning; curriculum-based professional learning, that is, professional learning grounded in the specific curriculum or discrete set of K12 instructional materials that teachers use with their students, is an essential ingredient.⁵ Yet, a recent RAND Corporation survey reveals that almost a quarter of teachers report receiving no professional learning on how to implement their curricular materials, and just over a third report receiving only 1 to 5 hours over the course of the academic year.⁶

Providing curriculum-based professional learning at scale is challenging, complex, and contextualized. It requires time, people, money, and expertise at the systems-level and at the ground-level. No single school system, organization, or actor can accomplish it alone. Instead, scaling the curriculum-based professional learning on which HQIM relies requires a field of diverse, interdisciplinary actors from across the education sector who collectively co-produce improved professional learning through research, strategy, policy, and direct service. Put another way, to strengthen educational experiences and outcomes for students, proponents of HQIM and curriculum-based professional learning must build a strong, resilient field of individuals and organizations working together to transform teaching and learning.

Building on an analysis of information provided by 146 people over the course of 122 interviews, as well as an extensive review of secondary sources, this research reveals that the field of curriculum-based professional learning is emerging. While its impact is not yet consistently felt across the education ecosystem, its infrastructure and field-level agenda are fairly well-developed. Its actors, knowledge base, and resources are still in more nascent stages and require focused attention for the field to reach its potential for impact.

What are High-Quality Instructional Materials?

Instructional materials that have been rated by EdReports as fully meeting expectations of college- and career-ready standards.

What is a Field?

According to The Bridgespan Group’s “Field Building for Population-Level Change” framework, a field is “a set of individuals and organizations working to address a common social issue or problem, often developing and using a common knowledge base.”⁷

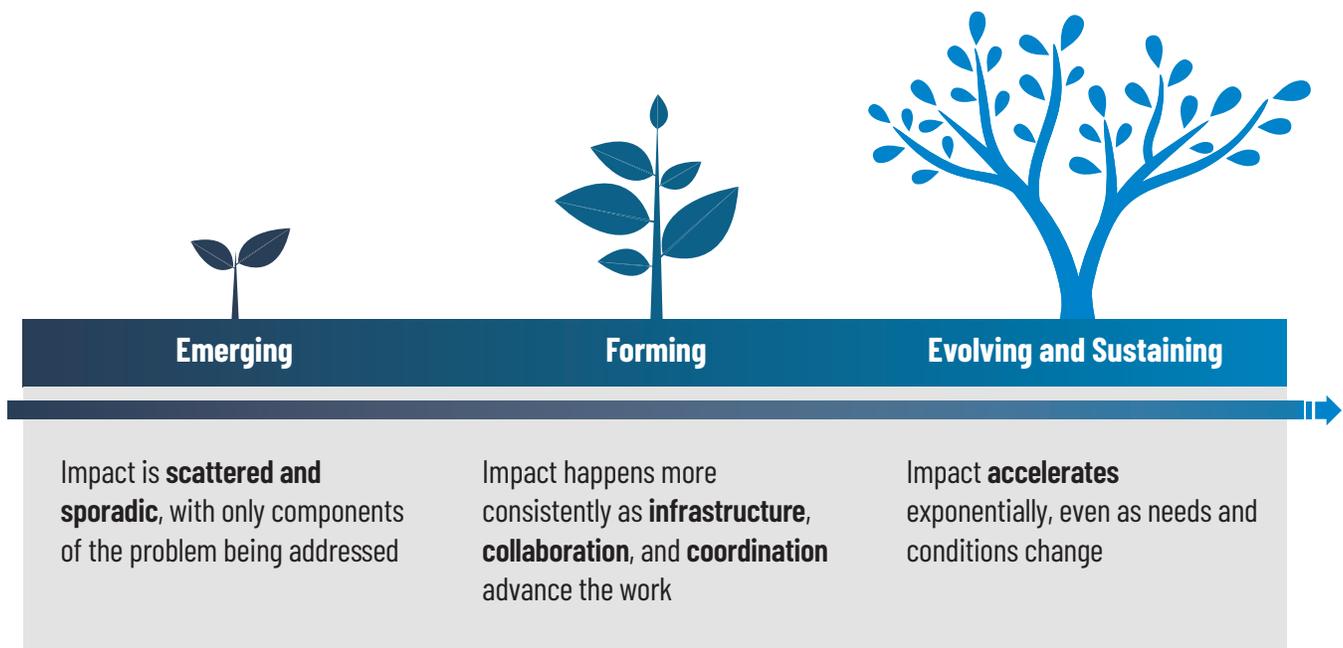
Background

Field-Building: What, Why, and How

No organization, regardless of its size or the quality of its work, can solve a complicated social challenge on its own; organizations and funders must work together to achieve large-scale change.⁸ As a result, for more than a century, scholars, philanthropists, and practitioners have theorized fields as units of broad social change.⁹ Funders in particular have reimagined their role in social change as one that is focused on “field building” or “movement building,” that is, generating broad change by funding swaths of work focused on tackling similar social challenges.¹⁰

Why do fields matter?

Field-building matters because fields achieve population-level change in ways that individual actors often cannot.¹¹ By thinking at the level of a “field,” those seeking complex change can develop strategies that amplify their efforts to effectuate something bigger and more impactful than they likely could ever accomplish as individual actors.



Source: The Bridgespan Group¹²

To understand the level of a field's development, the strength of the field's five observable characteristics must be examined.¹³ Once the phase of the field has been identified, stakeholders can strategize around the field's needs to spur growth.¹⁴

Bridgespan's five observable field characteristics are:

Field-level agenda

The approaches that actors in the field take up to advance change, addressing barriers and evolving over time. As a field becomes more developed, the efforts become "more focused and coordinated."¹⁵

Actors

Those that "together help the field develop the shared identity and vision" that is necessary for the field to achieve its shared goals. In advanced fields, the actors are diverse and include individuals who are close to the work itself.¹⁶

Knowledge base

The academic and practical research that supports those involved in understanding "the magnitude of the issues" and the barriers.¹⁷

Infrastructure

The supports that coordinate efforts and provide the "connective tissue" needed to strengthen the field.¹⁸

Resources

The financial and nonfinancial supports that build and sustain the effort.¹⁹

Curriculum-Based Professional Learning

Curriculum-based professional learning equips teachers to effectively use curriculum with their students. It is grounded in a robust literature base. Indeed, for at least two decades, scholars have agreed that to effectively serve teachers—and, by extension, students—professional learning should: be grounded in instructional content,²⁰ include opportunities for teachers to learn proactively and collaboratively,²¹ use models for effective teaching,²² provide coaching or expert support,²³ provide opportunities for feedback and reflection,²⁴ and extend over a period of time.²⁵ Additionally, research finds that ensuring quality and adapting for local context is key—generic professional learning is not as effective as that focused on implementing the materials that teachers use in their classroom.²⁶ Moreover, additional time, on its own, does not impact student outcomes—the quality of what happens during the professional learning is essential.²⁷

That said, the research suggests that many teachers do not participate in robust curriculum-based professional learning. A 2019 study highlighted that, on average, teachers received only 1 to 2 days of professional learning tailored to specific instructional materials,²⁸ and a recent analysis by RAND Corporation indicates that 22.8% of teachers reported receiving no professional learning on how to implement classroom materials, 37.7% received just 1 to 5 hours, and only 9.8% received more than 20 hours.²⁹ Teachers report that the quality of the professional learning they receive is low, with half indicating that their preparation for teaching "did not prepare [them] at all" or only to a "slight extent" to use the curricular materials they were provided.³⁰

By outlining a field map and providing an analysis of Bridgespan's five observable characteristics, this research adds to work already underway in defining the contours of the field of curriculum-based professional learning and identifying opportunities for further growth.

What are “The Elements” of Curriculum-Based Professional Learning?

“Transforming Teaching through Curriculum-Based Professional Learning: The Elements” by James B. Short and Stephanie Hirsh is a key framework for the field that contends that to support teachers to provide effective instruction in the world of HQIM, professional learning must shift.³¹ The framework describes the following design features and enabling conditions for effectively building curriculum-based professional learning:

Curriculum

Builds teachers’ disciplinary content knowledge, pedagogical knowledge, and pedagogical content knowledge by using high-quality educative instructional materials.

Transformative learning

Changes teachers’ deeply held beliefs, knowledge, and habits of practice through intentional design.

Equity

Articulates and advances high expectations for all students and applies culturally responsive teaching and content consistent with a shared vision for learning.

Collective participation

Builds on collaboration among teachers in the same school, department, or grade using the same instructional materials.

Models

Structures for adult learning such as coaching, expert support, study groups, professional learning communities, institutes, workshops, and learning walks to achieve intended outcomes.

Time

Organizes when during the summer and school year teachers will learn, practice, implement, and reflect on the use of new instructional materials.

Learning designs

Engage teachers as learners through inquiry and sense-making while using the same instructional materials their students will use.

Beliefs

Address teachers’ ideas and assumptions about how to teach specific content, how students learn the same content, and how high-quality instructional materials provide productive ways to support student learning.

Reflection and feedback

Calls for facilitated time when teachers think about new instructional materials, receive input on how best to use them, examine student work and assessment data, and make changes to instructional practice in response.

Change management

Addresses teachers’ individual concerns and group challenges when implementing new instructional materials, including explicit opportunities to discuss and troubleshoot issues.

Leadership

Commits district, school, and teacher leaders to a shared vision for learning and instruction that applies to both students and adults, creates a culture of respect, and supports necessary risk-taking for curriculum implementation.

Resources

Ensure that schools have adequate time and funding, high-quality standards-aligned instructional materials and assessments, access to experts, and the professional learning materials needed for sustainable implementation.

Coherence

Aligns system and school policies, priorities, practices, and curriculum to a shared vision of learning and teaching.³²

Methodology

To support building the field of curriculum-based professional learning, this research assesses the current state of the field of curriculum-based professional learning, asking and answering the following questions:



1

Within the broader field of professional learning, how is the curriculum-based professional learning field defined, and what are its observable characteristics?

2

Where is the curriculum-based professional learning field most developed, and what actions, conditions, and resources supported its development?

3

Where is the curriculum-based professional learning field least developed, and for what reasons?

4

To what extent does the curriculum-based professional learning field exhibit the key features and supports described in “The Elements” framework?

In total, the team interviewed 146 people over the course of 122 interviews.

To answer these questions, the research team conducted a systematic review of the literature on HQIM, curriculum-based professional learning, and field-building and interviewed state-level academic leaders, regional leaders, system-level leaders, school-based professionals, professional learning providers, curriculum developers, philanthropic funders, and many others from across the country.

The research team also coded and analyzed publicly-available information about public and private giving to curriculum-based professional learning and related efforts and reviewed a number of secondary sources, including state professional learning websites, state-approved lists of professional learning providers, state professional learning standards, and Rivet Education’s Professional Learning Partner Guide (PLPG). Additionally, it reviewed publicly-available information from RAND Corporation’s American Instructional Resources Survey (AIRS) for the last three years.³³

Findings

Field Map

Before exploring the five observable characteristics of the curriculum-based professional learning field, it is helpful to understand where curriculum-based professional sits within the broader ecosystem of professional learning and how it relates to other professional learning dimensions.

The field of curriculum-based professional learning is emerging. While its impact is not yet consistently felt across the education ecosystem, its infrastructure and field-level agenda are forming. Its actors, knowledge base, and resources are still in more nascent stages and are emerging. For the field to grow and scale its efforts, attention must be paid in particular to these areas.

When providers, participants in, and recipients of professional learning describe professional learning in broad strokes, they talk about all aspects of teacher learning—everything from how to teach specific subjects and grades to restorative justice practices. The work of teachers is broad and varied, and so too is the field of professional learning.

Situated in this vast ecosystem is professional learning focused on how to teach a specific subject for specific grades. This professional learning often (though not always) focuses on standards, content, and research-based practices; it is sometimes tailored to meeting the needs of multilingual learners or special education students, to providing subject- and grade-specific instruction in ways that are culturally responsive, or to personalizing instruction to allow for greater differentiation and engagement. It is about the science of reading for K-2, middle school inquiry-based science, or grades 3-5 conceptual math, as a few examples.

Within this area of professional learning focused on how to teach a specific subject for specific grades is an emerging field that provides professional learning on how to teach a specific subject for specific grades using a specific curriculum. Here, actors might use EL Education to advance K-2 teachers' understanding of the science of reading, as an example. This is the field of curriculum-based professional learning and the subject of this research.

Bridgespan’s Characteristics

Keeping the field map in mind, this research employs Bridgespan’s field-building framework and its five observable characteristics—field-level agenda, actors, knowledge base, infrastructure, and resources—to understand the state of the curriculum-based professional learning field and to assess whether it is (1) emerging, where impact is inconsistent, (2) forming, where impact is more coordinated and consistent, or (3) evolving and sustaining, where impact “accelerates exponentially, even as needs and conditions change.”³⁴

The research reveals that the field of curriculum-based professional learning is emerging, with its infrastructure and field-level agenda in the forming phase and its actors, knowledge base, and resources in the emerging phase.

Field Level Agenda

Framework

A field-level agenda is the “approaches that field actors will pursue to address barriers [to field progress] and develop adaptive solutions.”³⁵

Level of Field Development	Description ³⁶
Emerging	<ul style="list-style-type: none"> Actors operate in separate contexts, carrying out ad-hoc, direct service activities. Individuals closest to the challenge at hand may or may not be involved.
Forming	<ul style="list-style-type: none"> Actors engage in a more diverse set of approaches with increased cohesion, but efforts may still overlap. Individuals closest to the challenge increasingly inform the approaches.
Evolving and Sustaining	<ul style="list-style-type: none"> Actors engage in a cohesive yet diverse set of approaches (e.g., research, advocacy, direct services). Individuals closest to the challenge inform the approaches.

Analysis

The curriculum-based professional learning field-level agenda is forming. A diverse set of actors are aligned on a number of key approaches to promoting teacher effectiveness through curriculum-based professional learning, and they approach the work from a variety of angles (e.g., research, policy, direct services). However, there are a number of matters on which the field has not aligned and input from proximate actors remains limited.

Areas of Alignment (and Not)

Curriculum-based professional learning field actors use and advocate for a number of shared professional learning approaches. Largely, field actors agree that professional learning must (1) be anchored in a curriculum or discrete set of instructional materials, (2) encourage feedback and reflection, (3) promote equity, and (4) leverage collective participation. These factors are reflected in key frameworks (e.g., “The Elements,” Learning Policy Institute’s “Effective Teacher Professional Development,” and Education Resource Strategies’ “Igniting the Learning Engine”), in practitioner-facing guidance like Learning Forward’s 2022 Standards for Professional Learning, in state-level professional learning funding structures and vendor guidance like that provided by Rivet Education, in the organizational models of many curriculum-based professional learning providers, and in the strategies advocated by funders and intermediaries such as the Council of Chief State School Officers’ Instructional Materials and Professional Development (CCSSO/IMPD) network of 12 states.³⁷

However, there are a number of key questions that the field continues to debate.

External vs. Internal Expertise

First, field actors vary in opinion on the role of external experts in curriculum-based professional learning. Some view external curricular expertise as crucial, especially early on in implementation when stakeholders within a given district or school are still developing expertise in selected curriculum. Others believe that for curriculum-based professional learning to be tailored to the needs of a community, it must be provided in-house by those with long-standing knowledge of local conditions.

Duration

Second, actors debate duration. Some maintain that to move practice, professional learning must be ongoing because it provides consistency, which teachers need to improve.³⁸ Others argue that repetition, in and of itself, is less important; a one-time workshop might shift teacher practice if conducted effectively, for example, and time, in and of itself, does not necessarily enhance the impact of professional learning. Relatedly, some dismiss curriculum developers’ introductory curriculum overview sessions as largely ineffectual, while others view them as essential.

Degree of Focus on Equitable Instruction

Third, in response to the deepened inequities wrought by the pandemic, some in the field see an enhanced focus on equitable instruction, culturally responsive and/or sustaining pedagogy, and students’ and educators’ social and emotional wellness. There are actors that continue to build educators’ capacity through curriculum-based instruction but expand their view of curriculum-based professional learning to support a more holistic approach. Not everyone, however, is focused on equitable instruction and some maintain a narrower conception of curriculum-based professional learning.

Types of Curricula

Fourth, for some, the field of curriculum-based professional learning is defined by use of HQIM—that is, instructional materials that have been rated by EdReports as fully meeting the expectations of college- and career-ready standards. For these actors, there can be no curriculum-based professional learning without underlying HQIM. For others, high-quality curricula that operate outside of the EdReports ecosystem might also fall within the parameters of curriculum-based professional learning.

Fidelity vs. Integrity

Last, some say that curriculum-based professional learning should support educators to teach curriculum “with fidelity,” meaning that educators use the curriculum precisely as designed to preserve its rigor and presentation of grade-level content. Others maintain that curriculum-based professional learning should promote effective adaptation—i.e., to teach curriculum with “integrity.” Those who have concerns about the curriculum itself (e.g., that it is not sufficiently culturally responsive or tailored to meet the needs of students with special needs, multilingual learners, or other specific populations) in particular push on the idea of integrity. Still others argue that these two forms of implementation should happen in a sequence, where educators begin their work with curriculum by teaching the materials with fidelity, and then once educators internalize the materials’ key content and approaches, adapting them to better meet student needs.

Largely, these areas of divergence suggest that the field can continue to explore—both through research and rapid on-the-ground testing—the ingredients of quality curriculum-based professional learning, find opportunities to learn from each other and collaborate across differences of opinion, and work together to achieve curriculum-based professional learning at scale.

Agenda Influencers

Perhaps unsurprisingly, leaders from states and large school districts³⁹—with support from the CCSSO/IMPD network—play a significant role in driving the field-level agenda.⁴⁰ States with control or influence over HQIM adoption leverage financial resources, guidance around professional learning vendors, and provision of professional learning itself to influence activities around curriculum-based professional learning. In states with localized control of curriculum and professional learning, district-level leaders drive decision-making. Funders and curriculum-based professional learning providers also influence the agenda. For example, both groups see their role as, in part, “making the case” for curriculum-based professional learning.

Interestingly, those closest to the provision of curriculum-based professional learning itself—educators, students, and families—have little involvement in setting the field-level agenda. For instance, state- and system-level interviewees repeatedly describe the

launch of the Common Core Standards as the impetus for their use of HQIM and related curriculum-based professional learning. Philanthropic funders often cite market needs—investing in the development of HQIM and aligned curriculum-based professional learning and building its evidence base. When people do speak about the role of families and students in the context of curriculum-based professional learning, they focus on HQIM adoption, not implementation.

All that said, some systems and funders have changed curriculum-based professional learning structures and strategies in response to teacher and leader input. One district, for example, shifted from use of an external provider to internal providers based on teacher requests. An HQIM developer, OpenSciEd, used a field test approach where teachers from various states provide input to inform both the materials and the professional learning strategy.

Actors

Framework

“A field’s actors are the individuals and organizations that [] help the field develop the shared identity and vision [] required to achieve impact at scale.”⁴¹ As a field develops, the actors develop a stronger shared identity and grow more diverse, both in their proximity to the issue at hand and in their demographics.⁴²

Level of Field Development	Description ⁴³
Emerging	<ul style="list-style-type: none"> • A small group of actors researches or provides localized contributions to the work. • Leaders may not have emerged. • Actors may be relatively homogeneous or missing.
Forming	<ul style="list-style-type: none"> • Actors include intermediary and government actors, as well as key funders. • Leaders emerge. • Actors are diverse and include those proximate to the challenge at hand.
Evolving and Sustaining	<ul style="list-style-type: none"> • Actors are heterogeneous and complementary. • Diverse leaders drive the field. • Actors are diverse and led by those proximate to the challenge at hand.

Analysis

The curriculum-based professional learning field's group of actors is emerging. It has developed beyond a small group of actors conducting research or providing localized curriculum-based professional learning, and now contains intermediary actors, funders, system- and state-level leaders, a growing number of providers, and many others. Key actors are becoming increasingly diverse across a number of dimensions, though certain key actors are still missing.

Key actors include funders (e.g., Carnegie Corporation of New York, Bill & Melinda Gates Foundation, Hewlett Foundation, W.K. Kellogg Foundation, Overdeck Family Foundation, Robin Hood Learning + Technology Fund, Schusterman Family Philanthropies, and Walton Family Foundation), curriculum developers and professional learning providers committed to effective HQIM implementation, supportive infrastructure organizations (e.g., Rivet Education, CCSSO/IMPD network, EdReports, Learning Forward), state and system leaders committed to HQIM and curriculum-based professional learning (e.g., members of the Curriculum Matters Professional Learning Network (PLN)), researchers developing the curriculum-based professional learning knowledge base (e.g., Research Partnership for Professional Learning (RPPL), RAND), and advocacy organizations (e.g., Collaborative for Student Success and Learning First Alliance). These actors engage in diverse work that advances curriculum-based professional learning, including building the research base for curriculum-based professional learning, establishing policies to increase the adoption and implementation of HQIM and curriculum-based professional learning, elevating examples of curriculum-based professional learning in action, and directly providing curriculum-based professional learning to systems and schools.

Further expanding the field, a number of these organizations are working to increase and diversify their membership and reach. For instance, RPPL is building a community of researchers and practitioners through an affiliates structure. A number of funders explicitly focus on supporting organizations led by people of color. Rivet Education, an intermediary that publishes a vetted curriculum-based professional learning vendor guide (alongside other activities), supports states and systems in accessing curriculum-based professional learning. Learning Forward has updated its wide-reaching professional learning standards to include a number of key curriculum-based professional learning tenets.

Nevertheless, a number of field-level actors have the potential to be more effectively folded into the field to expand its reach.

Teachers

Teachers are often thought of as beneficiaries of curriculum-based professional learning and are not typically characterized as field actors. Moreover, per the 2020-2021 RAND AIRS analysis, almost a quarter of teacher participants reported receiving no professional learning related to instructional materials; more than a third reported only 1 to 5 hours.⁴⁴ And while there are efforts within certain school systems to develop internal teacher curriculum-based professional learning experts, it is not the norm. In interviews, some teachers reported that curriculum-based professional learning undervalued their expertise because, for example, it was not designed for experienced teachers.

School leaders

Relatedly, school leaders often are not thought of as field actors nor are they provided with curriculum-based professional learning support. "Some conversations about curriculum-based professional learning miss the role of the principal entirely, which is worrisome," one researcher noted. An analysis of anonymized Rivet Education applicant data suggests that many professional learning providers are not yet supporting leaders in leading HQIM implementation at the systems level. That said, some states are actively addressing the needs of school leaders. In explaining the impetus for a strategy to provide curriculum-based professional learning directly to school leaders, one state leader said: "We started a lot [of our HQIM and curriculum-based professional learning work] at the district level and teachers found the principals didn't understand it and weren't ready to support them in this work ... It just wasn't getting to the principals."⁴⁵

Students and families

Students are at the forefront of providers' and participants' minds, but are often considered passive beneficiaries rather than field actors. Only a few state leaders spoke about plans to engage families and other interested community members. (For example, one state leader described a state-funded science of reading learning opportunity, and another explained that her team is currently strategizing about how to better engage families in their curriculum-based professional learning efforts.) Students and families hold promise as field actors, however, as they could help inform the design of curriculum-based professional learning, participate in research of its efficacy, and advocate for the long-term investment of time and resources it requires.

Systems and schools that leverage what may be high-quality curricula

Certain charter management organizations, specialized academic programs that use a discrete set of instructional materials (for instance, the International Baccalaureate (IB) program), and other schools and systems that center on specific curricula engage in numerous elements of curriculum-based professional learning (e.g., job-embedded learning, ongoing opportunities to engage deeply with curricula, collective participation, reflection and feedback), but their curricula sit outside the EdReports framework. For many, this excludes them from the field outright, but not everyone agrees. As one funder noted: “There is curriculum-based professional learning happening in many other settings, not just these more traditional ones. We would count them [as part of the curriculum-based professional learning field] and think [that] there is a ton to learn from them.”

Educator preparation programs

Educator preparation programs are potential field actors in that they typically do not provide HQIM-specific preparation—but they could. Indeed, some educator preparation programs contend that equipping candidates with the knowledge, mindsets, and skills they need to effectively leverage HQIM could pay dividends. As one program leader noted, “We define curriculum literacy as a core competency for preservice leaders,” and many district and state leaders expressed excitement about this view. Nevertheless, barriers to educator

preparation programs’ field participation exist. First, some educator preparation programs prepare candidates to create their own lessons and are philosophically at odds with HQIM. Second, some educator preparation programs that support HQIM and curriculum-based professional learning worry about preparing candidates with curricula other than what they will use as educators—their graduates go into a variety of different systems that all use different curricula, plus some systems change curricula often. Last, some educator preparation programs are worried about being seen as endorsing select products from particular curriculum developers.⁴⁶

Providers of related professional learning

Several sizable players in the broader field of professional learning (including various professional associations and regional service agencies) are well-aligned to many of curriculum-based professional learning’s key tenets. They focus on professional learning that provides opportunities for collaboration, feedback, and reflection, promotes high expectations, and is centered around how to teach specific content (e.g., conceptual math or the science of reading.) Similarly, there are many providers of professional learning that focus on culturally responsive teaching, personalized learning, social-emotional learning, and other approaches that could perhaps be oriented around specific curriculum, but typically are not. Here too, given their broad audience, many of these providers suggest it is not practicable to focus on specific curricula.

Knowledge Base

Framework

A field's knowledge base consists of the body of research, both academic and practical, that supports actors to understand and work to solve the challenges at hand.⁴⁷

Level of Field Development	Description ⁴⁸
Emerging	<ul style="list-style-type: none"> Knowledge base is narrow and focused on the scope of the challenge the field aims to address.
Forming	<ul style="list-style-type: none"> Knowledge base grows; actors contribute to it and draw upon it in their practice.
Evolving and Sustaining	<ul style="list-style-type: none"> Researchers and practitioners collaboratively update the knowledge base and prompt other actors to adapt their practices in response to emerging evidence.

Analysis

Curriculum-based professional learning's knowledge base is emerging. Much of the relevant research focuses on whether and to what extent HQIM is helpful in supporting effective teaching and learning and whether and how HQIM is being adopted.⁴⁹ Less attention is on curriculum-based professional learning specifically.⁵⁰ The research that does focus on curriculum-based professional learning is largely programmatic and descriptive, exploring highly-contextualized curriculum-based professional learning approaches.⁵¹ This limits the extent to which the research can be applied to support the design and implementation of effective curriculum-based professional learning across contexts. Also, a robust evidence base around the systems, processes, and practices necessary to support implementation of HQIM, such as the ways in which scheduling needs to shift or financial resources can be allocated to support its implementation over time, does not yet exist.

Further complicating matters is a lack of consistent terminology. What some call curriculum-based professional learning, others refer to as curriculum-specific professional learning, content-based professional learning, or simply high-quality professional learning.⁵² One regional leader said, for example, "We throw PL around as an all-encompassing term. I wouldn't routinely hear curriculum-based professional learning in my network. It doesn't mean it isn't happening. We just don't usually use that term." Another interviewee who

works in professional learning at a large professional association noted that there are "so many different terms." A third, who works for a leading curriculum-based professional learning provider, commented: "My question is when we say curriculum-based professional learning, what do we really mean? I would imagine if you were to ask people in various groups, the responses you'd get would be different." This inconsistent terminology makes it challenging to both access and make use of existing research.

Nevertheless, a growing number of researchers and practitioners are working to bolster the knowledge base. RPPL recently has sought to address existing gaps in the research with cross-organizational experimental and quasi-experimental studies of curriculum-based professional learning effectiveness. It also aims to provide states, systems, and schools with mechanisms for understanding the impact of curriculum-based professional learning. Similarly, RAND surveys teachers and school leaders about curriculum-based professional learning, providing actionable insights for the field.

A number of organizations within the field also recently have focused on distilling the key tenets of curriculum-based professional learning from research into practitioner-facing frameworks and guidance. For example, Learning Policy Institute's "Effective Teacher Professional Development,"⁵³ Education Resources Strategies' "Igniting the Learning Engine" toolkit,⁵⁴ and "The Elements"⁵⁵ all amplify key research concepts for the field.

Infrastructure

Framework

A field's infrastructure is the “connective tissue” that coordinates actors to bolster their effectiveness.⁵⁶ Organizations and individuals that comprise a field's infrastructure strengthen the knowledge base, provide technical assistance, and convene key actors.⁵⁷ As a field develops, so does its infrastructure.

Level of Field Development	Description ⁵⁸
Emerging	<ul style="list-style-type: none"> Infrastructure is informal and actors primarily work independently.
Forming	<ul style="list-style-type: none"> Infrastructure formalizes, and learnings about the field's challenges and effective approaches spread.
Evolving and Sustaining	<ul style="list-style-type: none"> Infrastructure strengthens connections across the field, supports the field's sustainability, and adapts to changing conditions.

Analysis

The curriculum-based professional learning infrastructure is forming. No longer informal and siloed, key actors are tightly bound, collaborative, linked through various networks, and draw on a common set of tools to inform their work. Moreover, varied organizations contribute to the connective tissue of the field through their dissemination of information that outlines the importance of HQIM, research-based practices, and professional learning aligned with HQIM. Key pieces of the infrastructure include:

Standards, frameworks, and principles

Professional learning standards are a key piece of the infrastructure. In particular, Learning Forward's revised standards are aligned with curriculum-based professional learning practices in that they promote HQIM and job-embedded professional learning.⁵⁹ Originally drafted in 2001, 30 states⁶⁰ have adopted, referred to, or codified the Learning Forward standards into law.⁶¹ In addition to “The Elements”⁶² and the publications from Learning Policy Institute⁶³ and Education Resource Strategies,⁶⁴ Leading Educators has recently released “Teaching Equity,” a framework for integrating antiracism into curriculum-aligned instruction.⁶⁵ Student Achievement Partners also published a set of Professional Learning Principles, which offer design suggestions.⁶⁶ But as Learning Forward has pointed

out, school systems most often make independent decisions about professional learning. If districts do not take up the state-endorsed standards or suggestions put forth in frameworks, their effect is limited.⁶⁷

Quality reviewers

Two organizations serve as quality reviewers for curriculum-based professional learning: EdReports (a platform that assesses the quality of HQIM) and Rivet Education (an organization that assesses the quality of organizations that provide HQIM adoption and implementation support). Rivet Education maintains a searchable database of recommended professional learning partners for adopting and implementing HQIM called the Professional Learning Partner Guide (PLPG). Experienced reviewers assess providers across a set of criteria focused on (1) the professional learning content and HQIM expertise of the provider, (2) the degree to which professional learning meets specific criteria for high-quality, HQIM-aligned professional learning, and (3) how the professional learning provider collects and uses data to tailor and improve its services over time. A number of states, including Delaware, Massachusetts, Mississippi, Nebraska, Rhode Island, Texas, and Wisconsin have worked directly with Rivet Education to launch state-specific PLPGs, or point their school systems to the national version for quality professional learning vendors.⁶⁸

Networks

A handful of identifiable networks are deeply committed to advancing curriculum-based professional learning. For instance, CCSSO/IMPD is a network that ties together state leaders dedicated to HQIM and aligned professional learning.⁶⁹ The network promotes adoption of HQIM⁷⁰ and is increasingly focused on effective implementation through curriculum-based professional learning.⁷¹ Additionally, the Curriculum Matters PLN collaborates around HQIM and curriculum-based professional learning, providing members with opportunities to share experiences and explore together effective practices. BSCS Science Learning and WestEd also have brought together state and school system teams to engage in OpenSciEd-focused curriculum-based professional learning in their NEXUS Academy for Science Curriculum Leadership. Chiefs for Change and the Council for Great City Schools also support networks focused on HQIM and curriculum-based professional learning at the system level, and Learning Forward is launching a network of systems focused on curriculum-based professional learning. Last, a community of philanthropies that fund HQIM and curriculum-based professional learning meet regularly to share learning.

Beyond these national efforts, a significant number of organizations with localized focus also contribute to the field's infrastructure by sharing tools, processes, and practices. For instance, Tennessee LIFT connects superintendents focused on exploring innovative approaches to advancing student learning, including HQIM and curriculum-based professional learning,⁷² and the Learning Accelerator shares research and knowledge, including about HQIM and curriculum-based professional learning providers.⁷³

Tools and supports

The field of curriculum-based professional learning has a growing number of tools that aim to fortify the field's knowledge and scale effective practices. One example is state professional learning websites. A handful of states offer online resources and guides organized by HQIM, allowing users to explore professional learning resources based on the HQIM they have adopted. Another example is RAND's AIRS project, which provides a nationally representative picture of HQIM and curriculum-based professional learning usage and opportunities. The data are freely available and have been leveraged by numerous organizations to advance the field's collective understanding of the work,⁷⁴ in addition to providing the basis for RAND's analyses.⁷⁵ A number of states, systems, HQIM developers, and providers of curriculum-based professional learning have created toolkits, guides, and other resources for those seeking to strengthen implementation of HQIM as well. As just

a few examples, Instruction Partners' Curriculum Support Guide provides resources for HQIM implementation leaders (including guidance on curriculum-based professional learning structures),⁷⁶ Teaching Lab published "The DNA of Teaching," which explores "how to weave together culturally responsive and sustaining education and curriculum-based professional learning,"⁷⁷ Nebraska's Instructional Materials Collaborative provides tools and resources to inform district decisions related to HQIM and curriculum-based professional learning,⁷⁸ the Collaborative for Student Success's CurriculumHQ offers an online resource guide, and the Mississippi and Arkansas Departments of Education both provide templates to guide curriculum-based professional learning decision-making.⁷⁹

That said, the curriculum-based professional learning infrastructure remains limited. First, there are questions about demand. Interest seems to be growing (as one example, the CCSSO/IMPD Network expanded from 8 states in 2017, to 12 in 2020, and will soon grow to 14), but interviewees questioned how often system- and school-level leaders—particularly those outside of CCSSO/IMPD and the Curriculum Matters PLN—leverage the field's infrastructure in professional learning decisions.

Additionally, the curriculum-based professional learning field infrastructure overlaps with the HQIM field infrastructure. This overlap is logical, given curriculum-based professional learning's grounding in HQIM, but the overlap sometimes dilutes the focus on curriculum-based professional learning. To illustrate, some district and school leaders assume that adoption of HQIM represents the end of the journey to strong instruction,⁸⁰ undermining curriculum-based professional learning efforts before they begin. This was evident in interviews where questions about curriculum-based professional learning elicited responses solely about adoption.

Finally, curriculum-based professional learning's infrastructure has not fully tapped into the strength of the broader professional learning field infrastructure. For instance, regional education service agencies and professional associations provide enormous networks and communities for educators. They sometimes directly provide professional learning, and even where not, they can (and sometimes do) advocate for it. Yet, these organizations are only beginning to receive attention by the curriculum-based professional learning field (with a handful of state leaders mentioning providing curriculum-based professional learning facilitation guidance directly to agencies within their states, for example). Given the alignment in their thinking about the key tenets of effective professional learning, and their existing scale, regional education service agencies present interesting potential opportunities.

Resources

Framework

Resources are both financial and nonfinancial field supports.⁸¹ As a field develops, resources become increasingly coherent and long-term and come from an increasingly diverse group of actors.

Level of Field Development	Description ⁸²
Emerging	<ul style="list-style-type: none"> Funders support research and innovation sporadically, with little long-term commitment. Resources reach a homogeneous group of recipients.
Forming	<ul style="list-style-type: none"> Funders work in more coherent ways and focus more on long-term goals. Resources reach a more heterogeneous group of actors.
Evolving and Sustaining	<ul style="list-style-type: none"> Committed funders continue to tackle long-term, systemic problems. Resources reach a heterogeneous group of actors, including those proximate to the challenge being addressed.

Analysis

Curriculum-based professional learning resources are emerging. The field has access to private and public funding, and funders (particularly private funders) are working, increasingly in tandem, toward longer-term goals on the supply side. For instance, funders are supporting efforts to establish stronger evidence to back effective practices, efforts to strengthen and expand the organizations providing curriculum-based professional learning, and greater investment in curriculum-based professional learning among states and systems.⁸³ Still, gaps remain, particularly on the demand side. For example, school systems aiming to purchase curriculum-based professional learning are often unable to do so because of financial constraints, even when using open-source HQIM. And, in addition to struggling with insufficient financial resources, there is one nonfinancial support repeatedly reported as lacking: time.

Funding sources

Private funding

An analysis of publicly available data on roughly 1,600 education-focused grants awarded from 2018 to 2021 shows that key funders—including Carnegie Corporation of New York, Bill & Melinda Gates Foundation, William and Flora Hewlett Foundation, W.K. Kellogg Foundation, and Schusterman Family Philanthropies—to-

gether provided at least \$126 million toward curriculum-based professional learning. Much of this funding went to curriculum developers providing curriculum-based professional learning and curriculum-based professional learning providers. Interviews with philanthropies active in the curriculum-based professional learning space further indicate a deep focus on curriculum-based professional learning's infrastructure and knowledge base.

Public funding

Substantial public funding supports districts and schools in developing their professional learning offerings. At the federal level, Title II, Part A of the Every Student Succeeds Act (ESSA) funds a great deal of professional learning.⁸⁴ Title II's Supporting Effective Instruction State Grants are intended to fund activities that improve teacher effectiveness, including professional learning.⁸⁵

A review of 2019 ESSA plans from all 50 states plus Washington D.C. showed that only a handful of states explicitly planned, on their face, to use ESSA funds for professional learning grounded in HQIM. However, as of 2020, at least 13 states' Elementary and Secondary School Emergency Relief Fund (ESSER) plans signaled a focus on curriculum-based professional learning activities, with another 35 plans signaling a focusing on content- or standards-oriented professional learning.

Nevertheless, as state- and system-level interviewees noted, federal monies are not necessarily sufficient to fund all the curriculum-based professional learning many wish to support. “For specific projects [in this case, curriculum-based professional learning for secondary math teachers] it takes additional funding sources [beyond ESSER and ESSA],” one state leader explained. Moreover, state and district leaders stated that while systems and schools have been able to hire external providers to support curriculum-based professional learning with ESSER funds, there are worries about sustaining these efforts when those funds are depleted.

In addition to Title II and ESSER, federal funds that can be directed toward professional learning (including curriculum-based professional learning) include certain Title I funds (particularly Parts A, C, and D), IDEA, and Title IV, Parts A and B, though these sources were infrequently mentioned by interviewees.⁸⁶ Likewise, states and districts provide additional funding that is sometimes allocated to curriculum-based professional learning efforts (e.g., the Governor’s Emergency Education Relief Act Fund), though these funds were also infrequently mentioned by interviewees.⁸⁷ The infrequent mentions, as well as the preponderance of competitive professional learning grants aimed at individual teachers, suggest that public funding for curriculum-based professional learning remains underdeveloped.⁸⁸

Funding recipients

To understand the degree of the field’s development, it is also necessary to explore the extent to which funding reaches a diverse set of actors. Publicly available information and interviews suggest that private funding recipients are a fairly limited group focused on the supply side of curriculum-based professional learning. A set of key private philanthropic funders appears to support a small set of prominent curriculum-based professional learning providers, researchers, and intermediaries.

Meanwhile, as suggested above, some actors who wish to purchase curriculum-based professional learning are unable to afford it. In

particular, state-level interviewees explained that even if small and rural districts use open-source HQIM, without the economies of scale and negotiating power of large districts, they struggle to afford quality curriculum-based professional learning. As one regional support provider explained: “There might be access to funding, but when you do funding on population levels for students and it’s a small district, you’re getting \$2,000 instead of \$2 million. It’s a lot harder to put together meaningful learning experiences for educators.” Some states have made concerted efforts to enable smaller schools and districts to purchase curriculum-based professional learning. For example, Mississippi and Kentucky both allocate state funds for HQIM and curriculum-based professional learning for districts that would not have been able to afford them alone. Louisiana has negotiated statewide contract pricing for professional learning providers, leveling the costs of HQIM and curriculum-based professional learning.

Nonfinancial resources

Private and public funding is increasingly focused on not only providing funding for curriculum-based professional learning, but also promoting greater collaboration for the key actors in the field. Private funders have hosted convenings, webinars, and other opportunities for actors to engage with one another. Some states have also provided nonfinancial resources in the form of publicly-available lists of curriculum-based professional learning vendors and similar such supports.

Multiple interviewees emphasized one key resource that seems to be in shorter supply than ever—time. “It doesn’t matter what system you’re in,” one open resource curriculum developer explained. “There’s just not time for teachers to dedicate to their own development. With the teacher and substitute shortages, there are classrooms that don’t have teachers right now. It makes it extremely challenging just to get teachers into the room. So, we are getting numerous requests for more asynchronous and shorter sessions.”

Recommendations

This research generates a number of recommendations for further building the field of curriculum-based professional learning. To advance, the field must in particular focus on its knowledge base, actors, and resources.

Knowledge Generation, Application, and Improvement

Prioritize quality

Research reveals an urgent need to focus on the quality of on-the-ground curriculum-based professional learning implementation. The field must seek to understand and spread learnings about how to effectively engage in curriculum-based professional learning, across varying conditions, for diverse populations, with different kinds of providers, and at scale.

First, researchers can expand the evidence base for curriculum-based professional learning practices. Researchers can test key practices, studying the extent to which they support impact, for whom, and under what circumstances. They also can design, test, and validate tools for measuring the quality of on-the-ground curriculum-based professional learning implementation. And critical to these efforts, researchers can co-construct and carry out these studies alongside those proximate to the work.

Other stakeholders can support the development of the knowledge base as well. Curriculum-based professional learning providers, both third-party providers and those internal to schools and districts, can make use of quality measurement tools as they become available and use the knowledge developed to drive high-quality delivery of professional learning services and to share effective practices.

Funders can support the efforts of researchers and curriculum-based professional learning providers by supporting quality measurement and research on the impact of curriculum-based professional learning practices and pressing for inclusive research methodologies and dissemination strategies. They also can message the value of inclusive research and measurement to curriculum-based professional learning providers and others through their reporting requirements.

Last, states and districts can use their platforms to elevate effective practices and to make the case for effective measurement, take

advantage of measurement mechanisms, share feedback with curriculum-based professional learning providers, and participate in broader research efforts.

Use consistent language

Interviewees—particularly those who work at the state, regional, district, and school levels—frequently indicated that they were unfamiliar with the phrase “curriculum-based professional learning.” Even actors who were named by peers as field leaders did not necessarily make use of this language, instead using phrases like “aligned professional learning” or “high-quality professional learning” to describe similar work.

This suggests that organizations and actors with broad reach, including field-level networks (like CCSO/IMP, which uses and spreads the term HQIM), researchers, philanthropies, states, systems, and curriculum-based professional learning providers can use more consistent terminology in their writing and practice to refer to this field and its work. One state leader further recommended that states adopt official definitions of curriculum-based professional learning in which they can ground their work, taking an approach similar to that of states that have adopted professional learning standards.⁸⁹

Coalition Building, On-Ramps, and Collaboration

Prioritize school leadership

School leaders are pulled in countless nonacademic directions, particularly in the wake of the pandemic. Interviewees noted that it is operationally challenging to provide curriculum-based professional learning at the school level and difficult to build buy-in among teachers without the attention and commitment of school leaders. The inverse is also true. When school leaders provide strong, effective instructional leadership and can leverage the supportive conditions and structures curriculum-based professional learning relies upon, curriculum-based professional learning is more likely to thrive. Despite this, school leaders seem not to have received the kind of significant attention and support from the curriculum-based professional learning field they need.

Here, key work might be done by district leaders and curriculum-based professional learning providers. First, these two groups often work together to select curriculum-based professional learning that is delivered at the school level. If new curriculum-based professional learning is provided to a school without strategic change management, school leaders may view it as another responsibility or burden, or

worse, punishment for stalling or declining student outcomes. District leaders and curriculum-based professional learning providers work to ensure school leaders recognize the value of the curriculum-based professional learning, pass enthusiasm along to their staffs, and create the supportive conditions, systems, and structures at the school-level that ensure curriculum-based professional learning can take hold.⁹⁰ In addition, curriculum-based professional learning providers can evaluate their offerings to tailor their services to the specific needs of school leaders.

This school leader-focused support also requires the attention of states, districts, and philanthropic funders. States, districts, and funders can smooth the way for additional opportunities for school leaders to receive the kind of curriculum-based professional learning they need, through networks, cohorts, education, and funding. States and districts also can create the demand for, and funders can support the supply of, school-leader specific curriculum-based professional learning.

Include teachers, students, and families

Asked about the barriers to the field of curriculum-based professional learning's expansion, many raise concerns about districts and states where HQIM are being rejected or otherwise taken out of use. They suggest that HQIM opponents could threaten the field of curriculum-based professional learning because it is, by design, inextricably linked to HQIM. Yet some of the most powerful potential advocates of curriculum-based professional learning are the teachers, families, and students most acutely affected by the work. By including them as partners in the work, and directly leveraging their views about what curriculum-based professional learning should strive to achieve, an opportunity exists to deepen much-needed community buy-in for HQIM and curriculum-based professional learning and to create advocates to promote their integration and longevity in communities across the country.

Curriculum-based professional learning providers also have a role to play. First, providers can build and/or utilize models for gathering feedback about how HQIM are serving teachers, students, and families. Based on this feedback, they can tailor their approaches to ensure teachers are equipped to address the needs voiced. Second, providers can focus on programmatic models designed to bolster teacher capacity to deliver curriculum-based professional learning in their communities. For instance, both Teaching Lab's and UnboundEd's curriculum-based professional learning models hinge on the notion that teachers will develop HQIM expertise over time, such that they can eventually deliver the services to others in their communities.

States and districts also can gather feedback from teachers, students, and families about how well HQIM are serving their school communities and use this information to guide their strategic thinking and their design of curriculum-based professional learning. Moreover, with respect to families, states and districts can consider ways to expose interested families in curriculum work. At least one state is offering content-focused professional learning directly to families and community members, and another explained that a key focus in their current strategic planning is family engagement in HQIM and curriculum-based professional learning.

Engage peripheral organizations

Interviewees noted that organizations like educator preparation programs, professional associations, and regional education service agencies are often situated around the periphery of the curriculum-based professional learning field—they build teacher candidates' and teachers' content knowledge and pedagogical content knowledge but typically do not consistently do so through specific curricula. Some also mentioned professional learning organizations that focus on social-emotional learning, culturally responsive teaching, personalized learning, or other traditionally curriculum-agnostic approaches to pedagogy. A frequently cited reason for organizations not anchoring on specific curricula is that they support candidates and teachers using countless different curricula. However, as some interviewees point out, use of HQIM provides educational value because the materials contain strong pedagogical practices. Therefore, use of HQIM by education preparation programs, professional associations, regional service agencies, and other providers of related professional learning has the potential to build capacity while grounding that learning in a concrete set of materials. Considering the size of the existing curriculum-based professional learning field compared with the reach of these organizations, enormous scaling potential exists with these players.

States may have a particularly important role to play in this effort. Several state leaders spoke to specific strategies for engaging these groups. For instance, one state in which regional service agencies provide significant professional learning to its districts partnered with a curriculum-based professional learning provider to ensure that the agencies had the training needed to provide curriculum-based professional learning themselves. Another state leader described building a similar partnership with select educator preparation programs.

Curriculum-based professional learning providers and HQIM developers might also consider how they can build capacity among organizations that might provide curriculum-based professional learning but lack expertise. OpenSciEd, for instance, provides facilitator training that equips external parties to lead curriculum-based professional learning focused on their instructional materials. Philanthropies, who in many instances play a key role in connecting likeminded actors within the curriculum-based professional learning field, might also consider how they can use their connective power to pull these peripheral actors into the field.

Long-Term Resources and Time

Commit to the long-game

Interviewees noted that when curriculum-based professional learning is not taking place, it is sometimes because systems lack the bandwidth, resources, or commitment necessary for continued focus. To ensure that curriculum-based professional learning efforts are sustained, systems need to create lasting structures and processes that will support the work over time. Systems need to focus on establishing resources for HQIM implementation and curriculum-based professional learning rather than solely for adoption, and then they need to be realistic about how long—and how much effort—it will take to achieve success.

Again, states can play a key role. States can provide funding directly for curriculum-based professional learning, create financial incentives for districts and systems to embrace it, and otherwise exert their influence in ways that promote its uptake. Additionally, states can distribute guidance focused on the ways in which both resources and time can be allocated to ensure that curriculum-based professional learning can take hold and last over time.⁹¹ Financial guidance is a particularly important area of focus given that many systems have used time-bound ESSER funding to support curriculum-based professional learning.

Philanthropies can support this effort by acknowledging and accepting as a feature of the work that curriculum-based professional learning is long and messy. It can set timelines and measures of success that are realistic and rooted in what providers and recipients of curriculum-based professional learning think is right. Additionally, philanthropies can support sustainability planning throughout the course of their grants (rather than only at application and closure), and can provide financial, technical, and other supports directly and indirectly to states, districts, schools, and providers for developing the systems, structures, and capacity needed to sustain the work. Moreover, philanthropies can exert their influence and leverage their convening power at the national, state, and local levels to encourage sufficient financial and nonfinancial resources are directed toward curriculum-based professional learning.

Leverage economies of scale

Interviewees noted that curriculum-based professional learning can be challenging to deliver at scale when individual schools and districts select and use so many different curricula—a particularly acute challenge in small and rural systems. To expand the curriculum-based professional learning field, additional paths toward curriculum-based professional learning economies of scale are worth exploring. For example, states with information about the curricula in place in districts might link districts using the same HQIM together to share resources and collaborate. States might also support regional education service agencies to tailor their professional learning offerings to specific HQIM, as some states have begun doing.

Curriculum-based professional learning providers can continue to equip district- and school-level actors to sustain curriculum-based professional learning efforts such that these activities can be carried out internally (e.g., by providing direct training or by providing resources like OpenSciEd's online Professional Learning Materials, which include sample professional learning objectives, agendas, and slide decks to support teachers and leaders in driving curriculum-based professional learning).⁹² Providers can also continue to expand their asynchronous offerings and virtual professional learning networks and can work to facilitate connections across school systems.

Conclusion

HQIM and aligned curriculum-based professional learning represent exciting opportunities to advance more equitable educational experiences and outcomes for students across the United States. To achieve their potential, however, curricu-

lum-based professional learning must grow into a strong, resilient field that extends its reach far and wide. This will require a coordinated set of strategies and activities conducted by a group of diverse, interdisciplinary individuals and organizations

from across the education sector working together to achieve something larger than they could accomplish individually. As this research makes clear, this work is in its early stages and will not be fast or easy, but it is underway and ripe with possibility.



Appendices

Appendix A: Full Methodology

This research is designed to support those interested in further building and scaling the emerging field of curriculum-based professional learning by exploring where, how, and to what extent curriculum-based professional learning is taking hold, and why. By outlining a field map and an analysis of Bridgespan’s five observable characteristics, the research provides insights that are designed to further strengthen the curriculum-based professional learning efforts underway.

The study is organized around four primary research questions:

- Within the broader field of professional learning, how is the curriculum-based professional learning field defined, and what are its observable characteristics?
- Where is the curriculum-based professional learning field most developed, and what actions, conditions, and resources supported its development?
- Where is the curriculum-based professional learning field least developed, and for what reasons?
- To what extent does the curriculum-based professional learning field exhibit the key features and supports described in “The Elements” framework?

Phase 1

The aim of the study’s first phase was to understand the ways in which the field defines curriculum-based professional learning and how it differs from other forms of professional learning, as well as to unearth potential data sources. The effort began with a systematic review of the literature on HQIM, curriculum-based professional learning, and field building. Additionally, conversations with professional learning and curriculum experts, district and state-level leaders, funders, and others provided insight about perceptions of the broader professional learning field, and curriculum-based professional learning’s role within it. The team also reviewed publicly-available writing and other media on the topic of curriculum-based professional learning, including white papers, reports, blog posts, webinars, and widely-distributed newsletters.

From there, the research team explored where the curriculum-based professional learning field (as defined through the initial literature review and conversations) appeared more and less developed. This

began with an analysis of private giving to professional learning using the Foundation Directory Online, a searchable database of funder and grant records. Key word searches for “professional development” and “professional learning” yielded 1,646 results from 438 grant-making organizations from 2018 to 2022. The team reviewed each entry to identify those focused on K12 education. This yielded 649 results. Entries were coded based on the extent to which, on their face, they supported curriculum-based professional learning or a related area such as content- or standards-focused professional learning.

Additionally, the plans produced by all 50 states plus Washington D.C. in response to Every Student Succeeds Act (ESSA) in 2017—and Elementary and Secondary School Emergency Relief Fund (ESSER) in 2021—were pulled, and a systematic review was conducted. In an effort to explore the extent to which they facially signaled an interest in or focus on curriculum-based professional learning or related types of professional learning, the documents were coded using key words that included: “professional development,” “professional learning,” “HQIM,” “curriculum,” “content,” and a number of specific content areas and names of HQIM developers. After isolating the locations of the search terms, those plans were analyzed to determine the extent to which each suggested a focus on curriculum-based professional learning or related professional learning approach.

A number of additional secondary sources also were identified and reviewed in a similar fashion. First, almost all 50 states plus Washington D.C. have websites focused on professional learning. Each was located, and its organization and content were analyzed. The question asked in the analysis was: To what extent does the state’s professional learning website support thinking about and making choices about professional learning in ways that prioritize curriculum-based professional learning or related types of professional learning? Second, state-approved lists of professional learning providers were identified through Internet searches. The lists were, again, analyzed to understand the extent to which they facially signaled or otherwise seemed to privilege curriculum-based professional learning or related professional learning approaches. Third, a search for state professional learning standards was conducted, and an analysis to understand whether and to what extent they were aligned with curriculum-based professional learning occurred. Fourth, preferred providers in Rivet Education’s PLPG were organized by state, with the goal of determining whether and to what extent geographic trends in curriculum-based professional learning providers existed. Relatedly, the team reviewed anonymized Rivet Education PLPG applicant data and identified trends and themes.

Last, the research team reviewed publicly available analyses of nationally representative data from RAND's 2019-2020 and 2020-2021 American Instructional Resources Survey (AIRS). The team's review began with publications that analyzed the RAND AIRS data, including those written by RAND, EdReports, and others. The focus was on instructional materials used in classrooms, perceptions on the materials, professional learning activities broadly, and professional learning activities specifically focused on supporting use of the materials. A review of variability across states also occurred. Separately, the team examined the survey instruments themselves from 2019-2020 and 2020-2021, as well as the 2021-2022 survey, to understand the questions as posed and to explore the extent to which the questions evolved year over year.

Phase 2

The aim of the study's second phase was to explore where the curriculum-based professional learning field is more and less developed, and to understand the actions, conditions, and resources that supported its development. It further sought to understand the extent to which the curriculum-based professional learning field exhibits the key features and supports described in "The Elements."

To engage in these questions, the research team conducted 146 in-depth interviews. Participants included 19 state-level academic leaders, 8 regional leaders, 9 system-level leaders, 10 school-based professionals (including teachers, school leaders, and coaches), 29 external professional learning providers, 9 curriculum developers (spanning various subject areas, types, and sizes), 14 funders, and 48 others. Taken together, the team interviewed people from across the country. Urban, suburban, and rural perspectives were included, as were individuals of varying ages, years of experience, races, ethnicities, and genders.

Interviewees by Role

Role	Number of Participants
State-level academic leaders	19
Regional leaders	8
System-level leaders (e.g., district leaders, charter management organization leaders)	9
School-based professionals (e.g., school leaders, teachers, coaches)	10
External professional learning providers	29
Curriculum developers	9
Funders	14
Others	48
Total	146

To identify interviewees, a number of methods were employed. First, the research team connected with a wide variety of professional associations that have diverse, geographically expansive memberships, including ASCD, the Association of Educational Service Agencies, Learning Forward, and New Leaders, each of which offered their members the opportunity to participate in the study. Certain organizations also proactively identified specific individuals for interviews. Second, the research team conducted outreach to a variety of curriculum developers and professional learning providers. These organizations were identified through the initial conversations, a review of Rivet Education's list of preferred professional learning organizations, and recommendations from philanthropic funders and others. Third, the team conducted wholesale outreach to state-level academic leaders. Emails were sent to individuals in all 50 states, plus Washington D.C., based on Internet research and review of state agency-level organizational charts where available.⁹³ Fourth, the team emailed all affiliate members of RPPL, as well as a number of members of the Curriculum Matters PLN. Last, the team emailed philanthropies, including those who participate in a group focused on the issues of HQIM/curriculum-based professional learning, and provided them with the opportunity to interview.

In interviews, participants were prompted to provide their definition of curriculum-based professional learning and asked to comment on the factors (e.g., actions, conditions, and resources) that they believed supported and blocked curriculum-based professional learning's development. Where appropriate, participants

shared their views on the five Bridgespan characteristics and the degree to which they were observable within the curriculum-based professional learning field, though not all participants were able to directly comment because they were unfamiliar with the field altogether (which itself provided valuable insight). A number of those interviewed also talked about whether they are invested in curriculum-based professional learning and why (or why not). With philanthropies specifically, additional questions focused on their curriculum-based professional learning strategies, where they believe philanthropy and other funding streams can and should further the field (or not), and the most significant barriers they see to its expansion.

As interviews were conducted, thematic codes were defined and applied across the qualitative data. The information was reviewed to refine the team's understanding of the development of the field, to understand placement on each of Bridgespan's five observable characteristics, to explore where the field was more and less developed, and to identify the actions, conditions, and resources that appeared to support (or interfered) with the development of the field. Further analysis revealed where and to what extent the current curriculum-based professional learning field is aligned with the framework outlined in "The Elements." As additional interviews occurred, thematic codes were updated and reapplied. At the conclusion of the interviews, the observations and findings generated were compared with findings in other publicly available publications to reveal overlaps, inconsistencies, and opportunities for further exploration.

Appendix B: “The Elements” Analyzed

There are areas of agreement and divergence between what those who are building the field of curriculum-based professional learning see as its core goals and approaches and what is described in “The Elements.”⁹⁴ Put another way, the emerging field of curriculum-based professional learning has a field-level agenda that is somewhat, but not entirely, aligned with what is described in “The Elements.” The chart below defines the extent to which curriculum-based professional learning’s field-level agenda maps onto “The Elements,” and highlights opportunities for additional attention.

Element	Description	Observations
Curriculum	Builds teachers’ disciplinary content knowledge, pedagogical knowledge, and pedagogical content knowledge by using high-quality educative instructional materials.	Curriculum-based professional learning is generally accepted as professional learning grounded in a K12 curriculum that teachers will use with their students. However, there is disagreement about whether curriculum must be HQIM (i.e., rated green on EdReports) to qualify as curriculum-based professional learning. For example, some characterize charter school networks, the IB program, and other programs that use curriculum outside the EdReports framework as curriculum-based professional learning; others do not.
Transformative learning	Changes teachers’ deeply held beliefs, knowledge, and habits of practice through intentional design.	Curriculum-based professional learning is generally accepted as professional learning that challenges and changes teachers’ beliefs, knowledge, and practice. Curriculum-based professional learning providers seek to include this type of transformative learning in their learning experiences. And, researchers appear interested in better understanding the extent to which these efforts are having the intended impact.
Equity	Articulates and advances high expectations for all students and applies culturally responsive teaching and content consistent with a shared vision for learning.	Curriculum-based professional learning is generally accepted as professional learning that advances high expectations for all students. While there is a clear shared desire to advance equity among members of the field and a shared view of the importance of culturally responsive pedagogy, evidence suggests application is inconsistent. Some curriculum-based professional learning providers lean heavily into equity-focused approaches to the work; others do not. Additionally, there are divergent views about the goal of curriculum-based professional learning, and whether it seeks to promote curriculum implementation with fidelity or with integrity. Particularly for those who worry about the cultural relevance (or lack thereof) of existing HQIM, the idea of implementing with fidelity runs contrary to principles of equity.
Collective participation	Builds on collaboration among teachers in the same school, department, or grade using the same instructional materials.	Curriculum-based professional learning is generally accepted as professional learning that employs structures that enable teachers to study, practice, and reflect collaboratively using HQIM. That said, many providers and recipients of curriculum-based professional learning, state leaders, and others see the enabling structures as a barrier to the collective participation curriculum-based professional learning requires. A persistent challenge is providing the collaborative time teachers need to engage in the work and ensuring time is protected and used effectively. And, there are questions in particular for small and rural districts about how to set up collaborative systems when there are so few people in any given district using a particular curriculum to teach a particular grade and when many are asked to fill multiple roles within the district.

Element	Description	Observations
Models	Structures for adult learning such as coaching, expert support, study groups, professional learning communities, institutes, workshops, and learning walks to achieve intended outcomes.	Curriculum-based professional learning is generally accepted as professional learning that leverages adult learning strategies and structures, including coaching, study groups, professional learning communities, institutes, etc. However, there is not yet agreement that these mechanisms for providing professional learning are the only or best ways of doing so—some actors in the field also believe seminars, presentations, and the like also add value. Additionally, questions exist about the extent to which the coaching and professional learning community sessions are consistently high-quality, with some commenting on the variability in application they observe or experience and others noting the challenges associated with personalizing those experiences. Questions also exist about the role of external versus internal curriculum-based professional learning providers, the right duration, and whether curriculum-based professional learning must be ongoing.
Time	Organizes when during the summer and school year teachers will learn, practice, implement, and reflect on the use of new instructional materials.	Curriculum-based professional learning is generally accepted as requiring significant time. There is not agreement, however, about when that time must occur and whether time during both the summer and the school year is required. There also are questions about the most effective ways for systems to be designed around, and then protect, the time that teachers need to engage in this work. Indeed, the question of time is particularly acute given ways the Covid-19 pandemic has stretched the capacity of school staff and leaders.
Learning designs	Engage teachers as learners through inquiry and sense-making while using the same instructional materials their students will use.	Curriculum-based professional learning is not generally accepted as professional learning that enables teachers to experience the HQIM they will use with their students from student and instructor perspectives. While many curriculum-based professional learning providers pursue these types of intentional learning designs in their work, there are a number of organizations in the field that embrace seminars, presentations, and other types of one-off professional learning opportunities, as well. Indeed, there is disagreement about the merit of these types of learning experiences—with some contending they rarely if ever provide value, and others arguing they are essential.
Beliefs	Address teachers' ideas and assumptions about how to teach specific content, how students learn the same content, and how high-quality instructional materials provide productive ways to support student learning.	Curriculum-based professional learning is generally accepted as professional learning that disrupts teachers' assumptions about instructional practices and prompts them to reflect on their own roles in practices. Many providers of curriculum-based professional learning include this goal as a key part of their programming. That said, it is not clear how widespread attention to this element is in practice.
Reflection and feedback	Calls for facilitated time when teachers think about new instructional materials, receive input on how best to use them, examine student work and assessment data, and make changes to instructional practice in response.	Curriculum-based professional learning is generally accepted as professional learning that provides opportunities for teachers to explore HQIM, gather ideas on how to use materials, examine student data, and adjust their practice accordingly. Many describe this element as essential to the success of curriculum implementation and a lynchpin of any curriculum-based professional learning. That said, some raise questions about how and when reflection and feedback happen and whether and to what extent cultures that promote reflection, feedback, and experimentation are taking hold in districts pursuing curriculum-based professional learning.
Change management	Addresses teachers' individual concerns and group challenges when implementing new instructional materials, including explicit opportunities to discuss and troubleshoot issues.	Curriculum-based professional learning is not generally accepted as professional learning that addresses teachers' concerns and challenges about their curriculum (HQIM or otherwise). The change management associated with HQIM is often viewed as a challenge at adoption; little explicit attention is paid to the change management required as part of implementation.

Element	Description	Observations
Leadership	Commits district, school, and teacher leaders to a shared vision for learning and instruction that applies to both students and adults, creates a culture of respect, and supports necessary risk-taking for curriculum implementation.	Curriculum-based professional learning is not generally accepted as professional learning for district, school, and teacher leaders specifically. While there are a handful of curriculum-based professional learning providers that prioritize school leaders, and an increasing number of key actors talk about the importance of including school leaders, the field-level agenda does not yet squarely include curriculum-based professional learning for leaders. Moreover, the field is not yet clear or aligned on what, exactly, school-level leaders need by way of curriculum-based professional learning, though ideas are emerging.
Resources	Ensure that schools have adequate time and funding, high-quality standards-aligned instructional materials and assessments, access to experts, and the professional learning materials needed for sustainable implementation.	Curriculum-based professional learning is generally accepted as professional learning that requires time, funding, and other resources. That said, the field does not yet have all it needs in this regard. While funding from public and private sources is available for curriculum-based professional learning, questions remain about the extent to which small and rural systems in particular have sufficient access to the resources needed to provide curriculum-based professional learning. There also are questions about the time-limited nature of ESSER funds, which have supported a push for curriculum-based professional learning but will run out. And, time is limited and an ongoing challenge for many seeking to provide or participate in curriculum-based professional learning.
Coherence	Aligns system and school policies, priorities, practices, and curriculum to a shared vision of learning and teaching.	Curriculum-based professional learning is not generally accepted as professional learning achieving coherence across policies, priorities, practices, and curriculum to a shared vision of teaching and learning. While some providers of curriculum-based professional learning anchor their work around these ideas, and many in the field talk about the importance of a clear instructional vision, there is not yet clarity or a coalescing in the field around the idea of coherence as being central to curriculum-based professional learning.

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