



Procurement in Education: Towards a Modernized, Evidence-Informed Approach

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I. Introduction

In our public school system, procurement of instructional products¹ has traditionally unfolded inside rigid budgetary and regulatory lines: long on procedure and compliance, short on energy and intention. But today, we're seeing a gravitational stir in thought and discussion of procurement. The word itself – evoking bureaucratic staidness, obscuring agency – is increasingly edged out of discourse by more dynamic words like “investing” and “buying.”² Ed tech is scrambling the dusty textbook market, and raising critical questions about the buying rhythms that built up around it. And a recent wave of research indicates, with little doubt, that instructional materials play a key role in learning.³ So systemic actors are looking hard at procurement, holding it up to the light, and seeing not an administrative compulsion but a potentially significant, under-tapped mechanism for improving schools.

Our report explores this nascent shift, especially the drive to root procurement in *evidence*. To that end, below we:

- Discuss the long-held conventions of procurement – which still shape the process in a great many school districts nationwide.
- Analyze the undercurrents of change, with a focus on the last decade of research, policy, and technological developments that recommend a more evidence-informed approach.
- Profile the efforts of key organizations working to translate these developments into concrete practice in schools today.
- Suggest the roles that different actors in the space (teachers, leaders, and external partners) can play to encourage this evolution.

Education has just undergone profound generational change. Measurable student outcomes are now, enduringly, at the center of our national education dialogue and agenda. Mass digitization has burst open our data landscape and our range of instructional possibilities. Procurement has not caught up to these realities – and it must. It needs a steadier empirical foothold; a truer apprehension of the contemporary market; and a more investigational, analytical spirit.

Obviously, this is a tall order: in this report, we map the longstanding systemic patterns of procurement with clear eyes. But, more importantly, we document gathering impetus for modernization – as well as committed efforts underway to bring this modernization to bear in classrooms. Our goal is to light the beginning of a collective path forward: towards a more purposeful procurement, that keeps the object of student learning at its heart.

II. Traditional Procurement: Conventions and Constraints

Traditional procurement is byzantine and compliance-driven. It's not structured to weigh evidence of product effectiveness, to reflect our contemporary instructional materials market, or to include educator perspective.

Regulatory atmosphere

The twenty-first century's tumult of education policy reform can veil the fact that, by and large, school districts hold on tightly to the way things have always been done.⁴ Scheduled textbook adoption, driven by a compliance-focused request-for-proposal (RFP), is the way that procurement has always been done. In most districts, bureaucratic precedent and risk avoidance predominate.⁵ This is often for good – or at least understandable – reason, as structural conditions make it so.

Procurement is a labyrinth, and a dense thicket of regulations – federal, state, and local – forms its pathways. Many of these regulations incentivize the status quo and dampen possibilities for new approaches. Federal rules under Title I, for example – which affects high-poverty schools – are notoriously difficult to navigate. Once a Title I expenditure has passed compliance muster, districts often do not want to make change, lest they invite an audit or another time-consuming snag into an already protracted process.⁶ Layered beneath federal policy are state-level curriculum directives, as well as locally-driven budget constraints.

The purpose of these regulations is to safeguard against misuse of public funds, process bias, and dereliction of policy principle.⁷ They don't deliberately discourage innovation. But in practice, regulatory strata squeeze district officials into a defensive crouch, in which safety is a topmost value.⁸ One chief, adverse implication of this "defensive spending" is that districts often buy motley assemblages of products: one core curriculum for middle school ELA, for example, then a separate writing workbook, intervention tool, and assessment program. This fragmentation subjects teachers to a "perpetual hazing ritual" in which they're always supposed to implement another product.⁹ And it cuts against years of research telling us that a more cohesive approach is better for students, especially vulnerable ones in high-poverty schools.¹⁰

A fast-changing marketplace

Traditional procurement is also discordant with today's market. A generation ago, the choice of, for instance, fourth grade math curriculum was a straightforward one – among six or seven major textbooks. Digitization has upended this world; now, the array of math products and tools is dizzying, and ever-changing. This kaleidoscopic market asks district officials to be leading-edge curators of digital products; to be minded towards innovative, personalized models; and to embrace instructional redesign rather than measured adjustments.¹¹

Many districts are architecturally off-balance with these new exigencies. Districts interpret and implement abstruse regulation. They manage tier upon heavy tier of school operations. They're often well short of the staff and time resources needed to scrutinize today's gamut of instructional products for features like secure footing in cognitive science; number and quality of efficacy studies; or traction in contexts and with populations that resemble their own. So for the most part, they don't. Pervasive district procurement practices remain evidence-light or even "evidence-unbothered."¹² Procurement officials most often buy materials within established, compliant vendor relationships – and when they do buy something new or tech-forward, that choice is driven mainly by informal word of mouth among peers.¹³

Marginalized educator voice

The other thing procurement teams tend not to do is substantively include the people who execute on their choices: teachers. Nationwide, teachers operate on the other side of a tall and durable partition from district officials. They rarely have a seat at, or window into, decision-making. The reverse is true, too; those who govern and manage educational systems struggle to understand what goes on inside the "black box" of the American public school classroom.¹⁴ This gulf between the everyday experience of buyers and users – and an absence of dialogue across it – is a key problem. We know, for example, that new ed tech products procured at great expense to the public (this is an \$8.4 billion a year market) are often used minimally or not at all in classrooms.¹⁵ Slack or "half-baked implementation" is the norm.¹⁶

Sidelining teachers in materials procurement also compels many of them to seek out and stitch together their own.¹⁷ This isn't intrinsically negative; today's online landscape includes many expertly-created, free resources. But it also includes non-vetted platforms like Pinterest and Teachers Pay Teachers: popular sites brimming with lessons and activities detached from any larger, coherent learning structure. The potential pitfalls of widespread teacher curation from these sites – further curriculum fragmentation and standards misalignment, for example – are obvious. And they're obviously entangled with a formal procurement process that hands down materials teachers did not choose, and in which they might feel little investment.

Procurement, clearly, is challenging. It's beset by regulatory convolution, a fast-changing market, and an entrenched non-symbiosis between buyers and users.¹⁸ But we believe, for reasons that we dig into below, that our current moment is ripe for progress in this corner.

III. Procurement Under Pressure: Growing Recognition of the Evidence Imperative

It's increasingly clear that traditional procurement doesn't meet our contemporary system's needs. Over the last decade, strides in research, policy, and technology have converged to decisively recommend a more rigorous, reflective procurement approach.

Research on instructional materials

Education has long suffered from the slipperiness of proven, reliable solutions. As Dylan William crisply observes, "everything seems to work somewhere, and nothing everywhere."¹⁹ This challenge of "scale" in education points to the sprawling, human complexity of our system – and to would-be reformers' chronic underplaying of that complexity. It does not, however, signify that we lack rigorous evidence for particular solutions, or that we can't generate that evidence, or that all instructional tools have similarly feeble evidentiary muscle. In fact, the Common Core era has seen a decisive surge of evidence for two major premises. The first is that most students confront low-quality materials in school.²⁰ The second is that higher-quality materials are obtainable, affordable, and effective for improving achievement.²¹

We actually know a lot about what helps kids learn. One key ingredient, for example, is struggle.²² To internalize a new concept, learners must actively figure it out. Yet we also know – to return to our middle school ELA example – that seventh graders nationwide spend substantial class time on vocabulary and grammar worksheets packed with rote, fill-in-the-blank exercises.²³ The need for mental exertion is a well-substantiated, general principle; but we have considerable evidence for best practices within particular content areas, too. Take, for instance, learning to read. Research has repeatedly authenticated several tenets: students require explicit phonics instruction; they benefit from deliberate, repeated practice; and background knowledge informs comprehension.²⁴ In spite of the patent "must" for any reading curriculum to reflect these core tenets, many popular products stray from them.²⁵

Most instructional products available today also have substantial efficacy data to consider. Such data's existence, however, does not mean that its implications are clear. Procurement teams often encounter this data in a marketing context, where it can be cherry-picked and rendered in illusively sunny terms. A scan of instructional product marketing online suggests that, indeed, most all claim scientific grounding and demonstrable impact with students – often with vague and sweeping statements like the product is "proven to increase academic performance." To accurately parse such a claim, we must ask questions like: Whose academic performance? In what context? How was this proven? Has it been repeatedly proven? And answering such questions demands probing scholar-world intricacies like study design, data analysis methodology, effect sizes. This is a big, complicated task – and one that procurement teams need robust guidance and structural support to negotiate.

Federal policy developments

In the last twenty years, federal education policy has increasingly registered and responded to the raw issues sketched above: the importance of instructional products, their wide variation in terms of empirical support, and the necessity of guardrails for their procurement. The Reading Excellence Act (REA) of 1998 was the first law to encourage spending federal dollars on “scientifically based” reading interventions.²⁶ In 2001, No Child Left Behind (NCLB) broadened this ground, mandating that states and districts justify all federally-funded expenditures with research. But in keeping with the holistic story of NCLB, enforcement sputtered – not least because the “evidentiary cupboard” was poorly stocked.²⁷ Rigorous research about instructional programs, it turned out, didn’t widely exist. In response to this scarcity, the Education Sciences Reform Act (ESRA) of 2002 established the Institute of Education Sciences (IES), to grow the evidence base; as well as What Works Clearinghouse (WWC), to bank existing evidence. In 2009, Race to the Top further coaxed states and districts into an evidence disposition; it offered grants to develop “data systems to support instruction,” which included technical infrastructure for assessing instructional products’ impacts.²⁸

These accruing policy developments set the stage for a legislative breakthrough in 2015, with the passage of the Every Student Succeeds Act (ESSA). ESSA outlines a simple, tiered hierarchy of evidence to guide districts’ investments. Tier 4 educational interventions have “rationale” evidence: a logic model based on learning science. Tier 3 have “promising” evidence of effectiveness with students: well-designed and well-implemented correlational studies. Tier 2 have “moderate” evidence, rooted in quasi-experimental studies. And Tier 1 have “strong” evidence, from true experimental studies. ESSA also stipulates that Title I school improvement grants can be spent only on Tier 1, 2, or 3 interventions.

To be clear, ESSA’s language on evidence is mostly non-binding. It has regulatory teeth strictly in terms of Title I grants. Still, there are notable implications here. Title I schools are highest-need, and ESSA raises the evidence floor for the instructional tools that these schools can buy. Federal guidance also percolates down; [Nevada](#), for example, has briskly incorporated ESSA evidence precepts into state policy, and other states like [Louisiana](#) and [Massachusetts](#) have built dedicated offices to help districts navigate evidence. Finally, and perhaps most importantly, federal direction animates and educates the market, supply and demand sides both. ESSA makes clear that instructional products need evidence; that districts should invest strategically, in the products most likely to benefit their students; and that such investments should be continuously evaluated over time.

Digitization and expanded tech capacity

As a concept, this “continuous evaluation” is closely enmeshed with novel digital capacity. Indeed, recent leaps in data technology are the last – and certainly not least – elemental factor now propelling evidence-informed procurement forward. The initial, widespread introduction of digital products to classrooms, in fact, caused agitation in the procurement space, as it

dawned that these new, incompletely-fathomed products captured loads of student data. Unease about this played out publicly, at times acrimoniously. While ed tech and “big data” gathered steam in education, a potent counter-movement mobilized to sound alarm about the risks to student privacy and the potential commercialization of their data. This movement of parents, educators, and advocates succeeded in compelling states and districts nationwide to mandate more granular vetting of tech products and their data systems.²⁹

These new, digital-age procurement requisites can and should also heighten consideration of evidence. For student privacy reasons, school systems are now primed to peer into tech products’ inner gears and workings; such products can’t be introduced into classrooms without scrutiny. As we move toward a world of broadly digitized instructional materials – which is, indeed, where we’re moving³⁰ – this scrutiny could be cracked open a bit further. Procurement teams could leverage the fresh necessity of focused product vetting to vet, as a matter of course, a product’s evidentiary base as well. And the product features that must be inspected from a security standpoint – the mechanisms that capture, constantly, in great detail, what students *do* in a tech platform – can later yield schools unprecedented information about product impact. This represents a dramatic expansion of the evidence landscape. And it potentially reframes procurement: as an ongoing rather than discrete process; as a living thing.

IV. New Approaches to Advancing Evidence-Informed Procurement

The research, policy, and digital developments described above have laid important groundwork for evidence-informed procurement. Now underway is a new generation of efforts to translate this modernized procurement ethos from theory and policy to practice.

Evidence-informed procurement is an education objective with vines reaching into obscure regulation, complex statistics, and cutting-edge technology. It can be hard to distill what the movement, what the term itself, advocates. That school districts overhaul the compliance-focused RFP process of traditional procurement? That they buy only instructional materials validated by big, experimental studies? That they deploy rapid-cycle evaluations to measure the tractive force of products in context?

Indeed, evidence-informed procurement contains strands of each of these notions. Our survey of the space suggests a three-part definition. “Evidence-informed procurement” signifies: (1) intentionally choosing instructional products that reflect deeper learning objectives and learning science principles; and ideally, that are supported by research relevant to the target school milieu; (2) continuously collecting evidence to understand how such products are working in context; and (3) using these learnings to inform what happens during implementation.

Given this multifaceted definition, it’s clear that we must tackle the cause from many angles.

There's no sovereign remedy, or obvious path to rewriting the conventions of the procurement world as it's long stood. But – as with most good ideas in education – there's a constellation of ways we can encourage along a more purposeful, evidence-informed approach.

Below, we profile key efforts by several organizations working toward this goal.³¹ (Note that each of these organizations works on a broader set of objectives, but we limit our discussion to their efforts on evidence-informed procurement.) Each targets a different altitude, and different actors, in the space. Stacking them together gives us directional understanding of what's changing, what's possible, and what systemic progress on this issue might look like.

◆ The [EdTech Evidence Exchange](#) targets the problem of marginalized educator voice in procurement, and in the larger evidence ecosystem of education. The Exchange partnered with IES, our federal education research institute, to address a hole in the way that IES typically approved and funded projects. In the past, IES research initiatives largely arose from the interests of *researchers* – and often captured limited real-classroom context. The Exchange set out to help amplify educator voice in this prioritization process; they pushed deceptively simple questions like, for example, what do high school math teachers want more research about? The Exchange hosted a series of symposia for IES to gather educators' views on questions like these. This new perspective nudged the federal education research agenda – and over time, will nudge our collective evidence base – into more relevant, practical territory.

The dominant learning to emerge from these symposia was that leaders and teachers deeply *want* reliable data to guide their procurement decisions – but they lack the capacity to find, organize, and interpret it. In light of this, the Exchange has undertaken the ambitious [EdTech Genome Project](#): a sector-wide effort to understand and share knowledge about how instructional tools perform in different school and classroom contexts. Ultimately, they aim to publicize this understanding for the field in an open, accessible form.

◆ The [International Society for Technology in Education](#) (ISTE) targets the demand side of the instructional products market; they seek to build more informed, discerning consumers. ISTE has endeavored, in multiple ways, to make procurement teams more critical consumers of instructional products. Leaders and teachers are bombarded with marketing claims about products' "scientific" legitimacy. Many lack the grounding, and the capacity, to soberly and skeptically weigh these claims – and to make comparisons among a range of products.

Recognizing this widespread perplexity, ISTE has built [courses](#) that orient prospective ed tech buyers in cognitive science principles, and in the deconstruction of product impact claims. ISTE also released a procurement guide, [Better Ed Tech Buying for Educators](#), which calls out many of the classic bugs in ed tech procurement, and charts a steady path towards a more evidence-informed approach. A strong emphasis of ISTE's guide is the need for greater "symbiosis" between district procurement teams and teachers; a procurement process that endemically excludes teachers, ISTE contends, is ill-fated in terms of classroom impact.

◆ [Digital Promise](#) targets the supply side of the instructional products market; they push providers of instructional products for greater evidence and transparency. Most notably, Digital Promise developed a [product certification program](#) that asks providers to rigorously document their products' research support – in exchange for their imprimatur of a “Research-Based Product Promise.” This program has compelled many providers to pursue, consider, and explicitly foreground evidence. One goal of Digital Promise's certification program is to diminish the burden on procurement teams to pilot and test new products; ideally, widespread certification would spare districts this expenditure of valuable bandwidth.

◆ [Results for America \(RFA\)](#) targets state-level policies and practices that can encourage evidence-informed procurement. RFA offered fellowships, in the aftermath of ESSA, for state education chiefs to come together and learn about using evidence in procurement. Throughout the eighteen-month fellowship, state leaders worked to understand, apply, and harness the power of new ESSA evidence requirements and Title I funding. This was essentially a demonstration project; its objective was to generate proof points for state-level practices that could foster more evidence-informed procurement in districts. RFA published a series of case studies about states that successfully leveraged the catalyst of ESSA in this way; see, for example, their [case study on Nevada](#).

Insights that emerged from RFA's fellowship all circle a common theme: the people and relationships involved in this matter a lot. One of the main barriers to state-level progress was personnel churn; over half of the original state Fellows cohort turned over, and their departures often set back nascent evidence-informed procurement practices. Systemic improvement on this issue hinges on coalition-building: within state departments of education; between states and districts; and between districts and schools. It requires the involvement and investment of many people in order to take firm root and endure institutionally.

◆ [LeanLab](#) targets local procurement – and charting, at a fine grain, how procurement unfolds within a bounded ecosystem of schools and people. LeanLab conducted a community-based procurement research project in greater Kansas City – a region that's uniquely microcosmic of the country in terms of school and population diversity. Their goal was to map the real patterns and rhythms of procurement within this small, circumscribed space.

Lean Lab's findings bear out districts' ongoing struggle to incorporate evidence during procurement. From the perspective of many district officials, the world of ed tech is vast, unmapped, and intimidating; so they continue to make relationship-driven procurement decisions, influenced mainly by vendors they know and by their local peers. LeanLab also substantiated, as previous research has suggested, a deep disconnect between the formal picture of district procurement and what's implemented in schools and classrooms. This local picture of procurement serves as a helpful grounding in the messy, human dynamics at play here. It also suggests that social network analysis may be a fruitful direction for future procurement research, and a potential vein of influence.

◆ [LearnPlatform](#) targets the necessary, ongoing pulse-keeping on product use in classrooms. LearnPlatform launched on the premise that most districts need major, foundational capacity-building around using evidence. A necessary first step towards more evidence-informed procurement, for example, is for districts to get a handle on their current product-use landscape. At a basic level, many district leaders are unaware of the array of products in use, and of what that use looks like in classrooms.

LearnPlatform created a key tool for taking inventory. Districts using the platform typically discover 120 to 150 ed tech products deployed in their schools – far more than most officials assume. This often includes more than one learning management system – even, poignantly, more than one “single sign-on” provider. Such prefatory stocktaking positions districts much more adeptly for procurement. LearnPlatform also developed an [Edtech Effectiveness Framework](#) to guide districts in interpreting this data, parsing its implications, and using evidence in an ongoing way to inform procurement and implementation decisions.

V. Implications for the Field

The diversity of efforts described above reflects the need to tackle this issue in multiple ways, at multiple levels of the system. Likewise, the different stakeholders in procurement all have a different, indispensable part to play in its modernization.

Below, we lay out the main implications of this report for three key stakeholders in the procurement space: (1) teachers, (2) school/district leaders, and (3) funders/external partners.

◆ **Teachers:** Teachers should advocate for inclusion in the procurement process. Their presence would ground procurement, vitally, in the view from the classroom, noisy and untidy place that it is. Teachers can introduce pragmatic questions like: How does this product align with our standards and assessments? How does it connect to other platforms and programs we use? How long will it take for me to learn the product? What kind of support will implementation demand? These questions perhaps seem marginal to a discussion of evidence. They’re anything but – and procurement teams neglect them at their peril.

To the extent possible, teachers should also adopt a curious, investigational mindset about instructional products. Novel technology is baked into many of today’s curricula; teachers will navigate discomfort, uncertainty, and, yes, occasional failure, during implementation. This isn’t dysfunction. It’s inevitable, and it’s how we learn what works in context.

Teacher have more power than they realize when it comes to instructional products. They are the gatekeepers of the American public school classroom, and they have great autonomy within its walls.³² At the end of the day, a district procurement move carries only as much weight as teachers’ belief in it; products don’t matter if teachers don’t meaningfully integrate

them into pedagogy. Above all, teachers should appreciate this basic truth, and act on it decisively when it comes to procurement.

◆ **School/district leaders:** Along with reconsidering the participants in procurement – school leaders, teachers, families, and even students – districts should take a long, hard look at its established formulas, phobias, and bureaucratic tics. Conventional RFP's are designed "to avoid the bad thing, rather than have the good thing happen."³³ Of course, the bad things – non-compliance with regulation, undue partiality to certain providers, student data compromise – remain concerns. But procurement should get us someplace, instructionally speaking. The question of where a district is now instructionally, and where it needs to go, has not typically been at its heart. It should be.

Above, we encouraged teachers to adopt an investigative disposition about instructional products. Of course, this is futile if teachers don't operate in a broader culture of safety and support. When it comes to new instructional products, leaders must intentionally nurture an atmosphere of experimenting, discovering, and sharing. Leaders can likewise model this posture by "learning in public" about systemic implementation of new products. Airing their learning in an open forum would not only serve as an example for their teachers, but would greatly profit the broader field – which is, by all accounts, famished for such information.³⁴

◆ **Funders/external partners:** Such thought leadership is also a key entry point for philanthropists and external partners interested in modernizing procurement. Above, we observed the uphill battle for evidence-informed procurement when it comes to definitional lucidity and magnetism. Most people intuitively understand and connect with the premise of, for instance, "better teachers" – the siren song of education reform a decade ago. This is trickier terrain. External actors can play a valuable role in telling its story: defining and disseminating norms for evidence-based procurement. They can also support or build on the particular, seminal efforts of the organizations we profiled in this report.

Furthermore, funders can influence the market for instructional products. As external players, philanthropists have neither the money nor the right positionality to affect structural change in education.³⁵ They can't wrestle this colossal, decentralized system into something fundamentally different. This lesson has been sometimes painful in the learning. But they can leverage market forces to encourage an entrenched system to take better inputs. They can do this on the supply side of the market – by supporting better, more evidence-based products; and on the demand side, by helping build buyer consensus and momentum around what quality instructional products look like.

Instructional products are important. We know that the activities that students experience in the classroom, and the sequencing and building of those activities over time, play a central role in their learning. And we must do better. So many students nationwide confront activities gloomily low on rigor, engagement, and relevance. This phenomenon is especially stark for

students of color, those impacted by poverty, and those with disabilities.³⁶ The immediate crisis of COVID-19 is accelerating both of these dynamics: the centrality of instructional products, and the corrosion of academic experience for poverty-impacted kids.

Still, the unasked-for reset of this pandemic may not be without hopeful educational prospect. We've had a national-scale baptism of fire in ed tech implementation for leaders, teachers, students, and parents. It's hard to predict the long-term effects of this. But we are certainly in new territory, with an intense spotlight on this generation of instructional products: what they look like, how they work, and how they're entangled with learning. This is all playing out against the broader backdrop that this report has sketched: converging research, policy, technological, and organizational efforts to modernize an outmoded procurement system. In this context, it's fair to speculate, and to hope, that our educational era will indeed see steps forward – towards educators choosing instructional products with purpose, to benefit the students that fill their classrooms each day, expectant.

Notes

¹ Throughout this report, we alternately use the terms “instructional products” and “instructional materials” to refer to tools and programs that structure academic experiences for students. This includes both full-course curriculum and/or supplemental products.

² See, for example, ESSA guidance on [Using Evidence to Strengthen Education Investments](#), or ISTE’s [Better Ed Tech Buying for Educators](#).

³ David Steiner’s 2017 article [Curriculum Research: What We Know and Where We Need to Go](#) is a helpful review of this research base.

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*This article and several others that follow were drawn from the American Enterprise Institute’s helpful [series on procurement](#).

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¹⁹ William, D. (2014). *Creating the Schools Our Children Need*. Learning Sciences International.

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- ³³ This is an insight and turn of phrase from Karl Rectanus at LearnPlatform.
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