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UNCHARTED WATERS

How a **whole-system approach to continuous improvement** can help districts **chart a course to equity and excellence** this pandemic school year



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Introduction

This past spring, COVID-19 threw schools and districts headlong into a crisis of immeasurable proportions. Experts believe that school closures caused as much as [183 days of lost learning in reading and 232 days in math](#). Lost learning is expected to [widen achievement gaps](#), posing significant risks to historically underserved students, such as students with disabilities, English Language Learners, students experiencing poverty, and students of color.

In the subsequent months, schools and districts worked tirelessly to design new hybrid and remote learning models for the new school year. And yet, despite the preparation, education leaders began the school year with tremendous uncertainty. The lack of research on remote and hybrid learning left educators unsure of the models that would work best for students and families amidst a perilous financial outlook.

With the new school year now well under way, staff, students, and families are still in desperate need of a clear strategic direction and set of tools for promoting equity and excellence in a moment of crisis. Nationally, we see school systems stepping up in new ways to provide this clarity, and seizing the moment afforded by these unusual circumstances to experiment with radically new models of decision-making, community engagement, school scheduling and staffing and instructional delivery.

How? This paper makes the case that the key to districts making progress towards equity and excellence amidst so much uncertainty is a [whole-system approach to continuous learning and improvement](#). We also provide seven concrete action steps that district leaders can take right away this school year to begin to take such an approach, and we provide a template dashboard to track and measure that work.



ERS' on-the-ground work shaping our perspective

Since March, ERS has worked with eight large school districts to help them design, implement and refine their plans for school reopening. We approached our work with an understanding of system design and resource use to help district leaders navigate an intricate set of trade-offs associated with new models for learning and support. From analyzing the short- and long-term fiscal implications of COVID response to developing adaptable [blueprints](#) for hybrid schedules, staff roles, and districtwide structures, ERS helped school districts mobilize their entire system of people, time and money around improving student outcomes. We are grateful for those partnerships, which shape much of the perspective we share in this paper.

A Whole-System Approach to Continuous Improvement

Over the past decade, the field of continuous improvement has increasingly taken hold in the K-12 education sector, encouraging practitioners to “[learn by doing](#)” through iterative cycles of inquiry. This approach shifts away from “silver bullet” solutions implemented in standardized ways to the systematic implementation of a combination of strategies adjusted for specific contexts and adapted over time, based on data on effectiveness.

Instead, continuous improvement relies on progressively deeper cycles of inquiry to better understand the conditions that must be in place for a particular solution to generate results. Continuous improvement (sometimes called “inquiry cycles”) is not just about incremental improvements to business as usual. Used right, it can be a powerful tool for testing breakthrough strategies.

Amid the COVID-19 pandemic, the value of continuous improvement is clear: By engaging in rapid cycles of inquiry, schools can quickly learn, adjust and iterate on new or untested models for instruction and student support, and get to transformative results. This approach grows only more valuable when applied in “networked improvement communities,” which are groups of schools with shared goals for improvement that examine efforts across a range of school contexts.

Across the country, an increasing number of districts are using the start of this pandemic school year to adopt a *whole-system approach to continuous improvement*. In Hartford Public Schools, the district has drawn on the momentum of its recent school reopening effort to launch a set of ambitious district strategies, organized around continuous improvement routines adapted from the [Data Wise Project](#).



In our 15 years supporting schools and systems like these to use data to craft, implement and monitor strategies to accelerate learning, the ERS team has had the opportunity to examine several continuous improvement processes. We've seen the systems, structures, policies, and practices that sometimes make it hard for schools and teachers to nimbly adopt new strategies to increase equity and excellence. We have also learned some of the features of continuous improvement processes that are most likely to generate transformative and sustainable improvements and overcome those systems and structures. In particular, we've identified certain elements of continuous improvement processes most helpful in a setting where funding levels fluctuate and schools' flexibility in how to organize resources is limited.

A **whole-system approach to rapid cycle continuous improvement** generates transformative and sustainable school improvements by enacting five critical shifts from traditional approaches:

A traditional approach to progress monitoring	A whole-system approach to rapid cycle continuous improvement
Monitors progress across a broad range of outcome areas	Emphasizes a set of clear strategic priorities
Relies on individual practitioners to craft improvement strategies from scratch	Empowers practitioners with evidence-based strategies and logic models
Assesses whether schools generate the expected outcomes	Assesses the fidelity and equity of strategy implementation across the whole district
Omits consideration of cost and return on investment	Includes understanding of the start-up and ongoing cost of the strategy and compares to the ROI on other potential interventions
Relies on the individual efforts of schools and teachers to drive improvement	Relies on cross-functional system leadership to identify and dismantle barriers, address inequities and support schools



Where to Begin: Implementing a Whole-System Continuous Improvement Approach in SY20-21

For many districts, implementing a whole-system continuous improvement approach will require some significant changes to current systems and routines. For example, forming a cadre of cross-functional improvement leaders may require mindset and process shifts that take years to solidify. And, with the array of urgent, competing demands currently placed on district leaders' time, some changes may simply be too much for education leaders to take on this year.

But we know that many leaders in all levels of the education system are already starting to lay a foundation for continuous improvement in the service of equity and excellence. So, district leaders can and must build on this energy by taking steps this year that lay a foundation for a whole-system approach, while also meeting the urgent improvement needs of schools.

Below we lay out seven action steps that districts should take in SY20-21:

Action Steps for SY20-21	
Strategic Priorities	1. Look at student and family data to set target outcomes
Evidence-Based Strategies	2. Choose your evidence-based "power strategy" 3. Collect and review data to learn what is working
Strategy Implementation	4. Design a delivery chain to guide cycles of inquiry
Start-up and Ongoing Cost of Strategy	5. Track and compare the cost of improvement strategies
Cross-Functional Leadership	6. Elevate system barriers, equity issues and needed supports 7. Assemble and empower cross-functional "strategy teams" to accelerate improvement



1. Look at student and family data to set target outcomes.

To remain focused in a time of uncertainty, district leaders should examine multiple sources of real-time student and family data to home in on critical needs and set target outcomes for schools. These target outcomes should include both urgent, foundational needs (e.g. physical safety, food access) and higher-order academic needs (e.g. acquisition of skills prerequisite for attaining grade-level standards) and distinguish needs among different students and student groups to help guide prioritization decisions.

In some cases, this data will reveal significant disparities in the way students are set up to experience schools. For example, in some cases, [Black families](#) are more likely to opt into a remote learning, posing the risk that their children will experience less overall learning time, more independent learning without a teacher, and fewer opportunities to build adult relationships. In other cases, students may have lower levels of family support or competing priorities at home, making remote learning especially challenging. Where these disparities are present, districts can establish unique supports and diligently track how student experience changes over time.

For example, one ERS partner district is relying on regular stakeholder feedback sessions, comprehensive surveys and quick “pulse checks” throughout the Fall to better understand how students and families are experiencing their fully remote model of learning. Combined with early assessments and estimates of student learning loss, these instruments allow the district to set clear improvement targets for individual schools and the district as a whole.

2. Choose your evidence-based “power strategies.”

While the situation that schools face is unprecedented, the student and teacher needs that it has exposed are not new. Fortunately, we can draw on [decades of research](#) to identify the key strategies for accelerating learning for all students, including students with greater amounts of lost learning opportunities, students facing economic hardship, and students of color.

Since the spring, ERS has been working with state and district leaders to design and share school models that get children back in school and embrace these strategies. By necessity, [these models](#), created with input from educational experts from across the country as part of a project with CCSSO, must operate within the current levels of available budget and staffing.

Suddenly, these new school models are shifting student and teacher schedules, staffing models, teaching roles, and the role of technology, parents, and outside partners dramatically. Some of these shifts will serve students and teachers well. Others won't. Some will show us potentially new, lower cost and higher impact ways of organizing people, time, and money that will be critical as we face a [challenging revenue situation ahead](#). As districts and schools continue to refine their



reopening models, we have a collective opportunity to make sure they include the strategies most likely to accelerate learning and to measure how they are working and how much they cost.

We have identified **five research-based power strategies** to accelerate student learning that are critical now and also have potential to transform school systems for the long-term. Critically, schools that accelerate learning and sustain high learning outcomes for all students organize everything around implementing empowering, culturally relevant curriculum and instructional strategies. But, without rethinking the resources, structures, processes, and routines that enable the practices that enable teachers to implement these well they can't be sustained or implemented at scale. Thus, our emphasis here on monitoring implementation and results of the strategies below.

- 1. Target individual attention and learning time in and outside of traditional school hours especially for students with greatest learning needs.** As learning losses mount and the COVID-19 crisis exposes even more systemic inequities for students in the age of higher learning standards, schools and teachers must adjust individual attention continuously to ensure learners don't get left behind. Before the COVID-19 crisis hit, most students spent their entire day in classes sized and scheduled in uniform increments without regard to the subject being taught or students' individual needs. A more strategic approach would have students spend their day in group sizes and time blocks tailored to what is being taught and to whom. Most schools still don't systematically vary the length of the school day or year to support students who may need extra time to reach grade level expectations. Yet, many parents with means routinely create these opportunities after school and over the summer for their children. Finding ways to extend learning time outside of typical school calendars will become ever more important in the coming years.
- 2. Restructuring the teaching job and roles to be more rewarding, collaborative, and sustainable, while ensuring all students have access to excellent instruction.** Making sure every child has access to high quality, culturally responsive teaching is one of the most widely understood, yet elusive strategies for accelerating learning. Students who need high levels of teaching expertise often attend the schools that have the highest concentration of novice teachers. [Research suggests](#) that teachers thrive when they work in teams, supported and coached by expert colleagues and have the opportunity to [learn and grow](#) in their jobs. It also shows that [working conditions](#) are one of the key drivers of great teachers leaving the profession. In many schools and districts, the arrangements for schooling during the pandemic show that teams and teaching time can be dramatically restructured. Newfound comfort with remote work and different roles for teachers and other staff will enable new kinds of teacher teaming, job sharing and part-time work arrangements. We may find that with widespread use of technology and independent learning—reinforced by in person interaction and more productive out-of school time—we need fewer teachers, thus freeing resources to pay all teachers more.



- 3. Design schedules, processes, routines, and supports for teacher teams to learn, plan, and coordinate instruction together.** Schools that accelerate learning for all students create significant blocks of time for teachers to plan and adjust instruction to respond to individual student needs. They [support teachers](#) with the materials, tools and knowledge to engage [each and every student](#) in accessing rigorous grade level content. Finding time and resources for teachers to learn new ways of working with technology and in remote environments has been challenging, but by necessity many schools are building more time than they ever have into teachers' schedules. Again, greater comfort with remote partnerships may enable different kinds of collaboration and coaching arrangements to support teachers to problem solve together.
- 4. Structure time, roles, and routines to strengthen social-emotional supports, relationship-building, and family engagement.** This moment of incredible isolation and disruption highlights the already well-established importance of relationships between teachers and students and families. Students living in poverty and those facing the stresses associated with systemic racism will need even more support to find a space of wellness and focus where they can engage in learning. Providing this support means more than adding social workers and psychologists on top of existing staff. It means revamping the use of time in schools, freeing time for teachers to connect in different ways with families and students. It also means implementing processes and routines that enable teacher-family connections and facilitate working together to respond to the social-emotional needs of students. Some teachers report that they have never had such insight into the family lives of students or connection with parents around learning. Districts have deliberately created teams and routines for ensuring outreach to families— even those who are not routinely connected to the school— to understand and respond to student need and connection.
- 5. Engage community partners in helping to provide instruction and other student supports.** Whether systems and schools have planned it or not, parents and outside organizations are jumping in to help fulfill learning needs. This support ranges from providing in-person support for remote learners in “pods” or community centers to providing tutoring, to families simply investing extra time with their children. Some systems and schools are systematically combining support so that it's more timely, integrated, and effective. Finding ways to engage more partners in learning also has the potential to change the cost structure of providing instruction and enable each partner to draw on what it can do best.

3. Collect and review data to learn what's working.

With things moving so quickly, school systems should take time to assess whether the strategies they have outlined are being implemented at the school level and how they are working so that they can evolve them. Systems with a less centralized approach can use this opportunity to



measure differences in implementation of these strategies and highlight bright spots that other schools can learn from. This assessment should pay close attention to differing school contexts (e.g. different need profiles, grade configurations, sizes, etc.) and the impact of [new learning modalities](#) (i.e. fully remote, hybrid and in-person learning).

To do so, districts can establish a basic system for tracking different approaches across schools, which draws on a mix of qualitative and quantitative data to create a robust picture of current school practice. This tracker should not be organized as an accountability system, but as an ongoing learning system that can accelerate district improvement planning.

We've created a [sample dashboard](#) that outlines a set of critical questions and metrics to track promising approaches within each power strategy that districts can start from right away. This includes metrics such as “weekly student minutes dedicated to student wellness (e.g. Advisory, Morning Circle)” to understand if schools organized time and assigned staff to ensure students are deeply known by at least one adult or “average teacher load by years of experience and primary teaching modality” to understand if schools differentiated teacher loads to expand the impact of the best teachers and ensure the job is manageable, and many more.

Key Questions	Metrics	School A	School B	School C
Target individual attention and learning time in and outside of traditional school hours especially for students with greatest learning needs				
Core Instruction				
How do student needs vary across learning modalities?	Percentage of enrolled students receiving in-person or hybrid instruction			
	Overall	55	60	50
	Black & Latinx	45	55	51
	Economically Disadvantaged	47	42	55
	Students with Disabilities	65	64	30
	English Language Learners	51	NA	NA
How much instructional time do students receive in a given week?	Student minutes per week			
	Remote	1200	1500	1400
	Hybrid	NA	NA	NA
	In-Person	NA	NA	NA
How do schools balance instructional time across content areas and learning modalities?	Student minutes per week and percent of time in Core subjects (Math, ELA, Sci, SS)			
	Remote	480 (40%)	675 (45%)	770 (55.%)
	Hybrid	NA	NA	NA
	In-Person	NA	NA	NA
How have schools balanced synchronous, asynchronous and independent learning time across different content areas?	Student minutes per week and percent of time receiving synchronous instruction			
	Overall	450 (38%)	1350 (90%)	1000 (71%)
	Core subjects (Math, ELA, Sci, SS)	200 (17%)	675 (45%)	650 (47%)

4. Design a delivery chain to guide cycles of inquiry.

As districts gain a deeper understanding of what is working in schools, they can begin to build out a menu of change ideas for schools to implement. To help schools adopt these change ideas, districts should outline [delivery chains](#) that clearly illustrate the components of successful implementation. Delivery chains go beyond simply describing a student support or intervention. Instead, they describe the full continuum of activities and enabling conditions necessary to generate results, both at the school and district level.

Delivery chains should serve as the foundation for system-level cycles of inquiry that answer four basic questions.

1. What activities and conditions do we think are necessary for our approach to succeed?



2. How well are we executing against our planned approach?
3. Where we have implemented our approach faithfully, is it generating the intended results?
4. What other factors at the system or school level might affect results?

Leading Indicators: The lynchpin of a successful delivery chain is a set of indicators of progress against target outcomes that can be measured with enough frequency to be useful. For example, a district relying on benchmark assessments administered twice a year to assess their strategy will lack the real-time feedback they need to make adjustments. Instead, that district could define leading indicators of academic growth that can be tracked on a monthly or even weekly basis. For example, some districts are using teacher gradebooks to track the successful completion of assignments each week as a predictor of longer-term academic improvement.

Delivery chains should be living documents – as practitioners and leaders learn more, they can add and refine delivery chains to better reflect conditions for success. For example, a district implementing a strategy for teacher retention in high-need schools may learn that teacher stipends only promote retention when coupled with a strong, school leader and positive working environment. By incorporating this new insight into the delivery chain, the district can ensure future generations of implementation are better positioned for success.

5. Estimate the start-up and ongoing cost of improvement strategies.

In the face of fiscal uncertainty, districts should continually assess not only how well their improvement approach is working, but also how they are using increasingly scarce resources to support these approaches. Districts can do this in two ways: First, by asking questions about which pieces of their strategies are most important and whether there might be more cost-effective ways to implement the strategy. Second, by comparing costs to that of evidence-based alternatives.

For example, a district implementing an intervention strategy may find that a local volunteer tutoring program has a track record of generating similar results, but at a third of the cost. While the district may continue its intervention strategy, it can use this benchmark of cost and impact to set minimum outcome targets to help guide cost reductions, improvements, and go/no-go decisions.

To enable this type of thinking, districts need solid estimates of start-up and ongoing costs. These estimates need not be perfect— even a ballpark estimate of cost can unleash powerful insights. To generate these estimates, districts can start by estimating the amount of staff time spent on each activity of given improvement approach, then use estimates of average position cost to convert time estimates into dollars.



6. Elevate system barriers, equity issues and needed support.

By engaging in cycles of inquiry around a clearly defined delivery chain, district leaders will gain insight into systemic issues of implementation that they are uniquely positioned to act on. Specifically, there are four critical areas of action that system-level continuous improvement can trigger:

- 1. Dismantling of structural barriers to implementation, such as outmoded policies, practices, or structures.** These barriers tend to be outside schools' locus of control and may include renegotiating teacher contracts to allow for more planning time, changing graduation requirements to accommodate new high school models, or rethinking assignment policies in the context of radical enrollment changes.
- 2. Shining a spotlight on new and legacy inequities that district strategy must address.** As districts examine strategy implementation across schools, they may come across pronounced inequities in the way students are experiencing new school models. For example, a district may find that a disproportionate rate of Black families opting out of in-person instruction means students in those families receive one month less learning time than their peers. By shining a light on these new or heightened inequities, districts can make systemic changes to support the most vulnerable or underserved student populations.
- 3. Rapid sharing of bright spots to accelerate learning.** Cycles of inquiry can be a powerful way to create visibility into specific, promising practices and innovations at individual schools. For example, individual schools may devise new ways of organizing the academic day or leveraging remote learning that can help peer schools move further faster. By serving as a clearinghouse of innovative practices, district leaders can accelerate this type of knowledge sharing.
- 4. Identify the need for common or differentiated school supports.** As schools implement new models, they will likely need significant support and expertise to ensure they're providing the best learning opportunities possible for their students. System-level cycles of inquiry are one way districts can identify the specific types of support schools need to help target their approach. For example, review of implementation data may reveal that three schools are struggling to administer frequent classroom observations. By subsequently helping those principals organize strong feedback cycles for teachers, the district can ensure that it's focusing its support on the right areas.

By triggering these types of action, system-level continuous improvement can help clear the path for successful implementation and accelerate improvement.



7. Assemble and empower cross-functional “strategy teams” to strengthen school improvement.

The ongoing improvement of district strategy requires coordination and collaboration across a range of functional teams. For example, a district focusing on improvements in literacy intervention may require adjustments to systems, policies and practices that span Academics, Talent, School Supervision, and Budget. While each of these areas is represented by a different department, each has a distinct role to play in supporting and improving the district’s strategy.

To foster this collaborative work, districts can establish collaborative *strategy teams* with the shared purpose of improving the implementation of a given strategy. *Strategy teams* can bring a sense of structure and accountability to collaboration, while also promoting coherence across disparate channels of school-facing supports. For example, a strategy team can ensure that professional learning for teachers and principals are consistent and align with a singular instructional vision.

Conclusion

We cannot know what the rest of this school year, or the years to follow, will bring. But we do know with certainty our shared vision of equity and excellence for every child in every school, regardless of their race or their family’s income. We believe that adopting a whole-system approach to continuous improvement can help district leaders feel certain that they are moving towards that vision, even in these tumultuous times.