



# bridges to learning

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## Building an improvement network

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*This feature article illustrates the work of improvement science networks. Through the work of such networks, there is alignment to the Principles of Learning. Clear Expectations are evidenced by developing common understanding and specific goals, hypothesizing intermediate steps, and analyzing and reflecting on your work and the work of others. Self-Management of Learning and Recognition of Accomplishment, which tie closely to Clear Expectations, are hallmarks of the work of improvement-science*

*networks. Networks use practical measures to monitor and adjust their ongoing work. The same measures allow networks to recognize their progress incrementally and in meaningful ways.*

Networks that engage educators in continuous improvement have the potential to harness the power of collaborative work to accelerate learning and solve complex problems. District leaders have the opportunity to build improvement networks within their organizations, but they vary in some distinct ways from networks typically seen in K-12 education.

We believe three indicators drive the potential of improvement networks and differentiate them from other networks, such as sharing networks.

**Improvement networks are grounded in shared goals, norms, theories of improvement/action, and practices.** Members of improvement networks have a clear, common understanding of their objectives and a shared hypothesis about how to achieve them. Members also have a collective commitment to their work and a sense of shared

responsibility. Beyond improving their own work practices, members of improvement networks believe they are collectively solving a broader, systemic problem, and they can articulate a clear theory of improvement that will move them toward accomplishing their shared goal.

**Improvement networks engage in disciplined inquiry to learn how to solve their focal problem of practice.** Members use systematic methods of inquiry to test their theory about what strategies will be most effective for achieving their goals. They typically use systematic methods and routines such as Plan, Do, Study, Act (PDSA) cycles that are integrated into their daily work. Improvement networks measure outcomes, but members of improvement networks also use practical measures to assess the processes that contribute to improvement.

**Improvement networks coordinate and accelerate learning and improvement through strategic knowledge management.** Network leaders monitor the changes that educators are making, review evidence that supports judgments that changes are leading to improvement, and

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In celebration of our 25th anniversary, the Institute for Learning is dedicating three issues of *Bridges* to the Principles of Learning. The winter, spring, and summer issues of *Bridges* will focus on sharing stories and insights about moving the Principles of Learning from theory to practice.

Winter 2020	Spring 2020	Summer 2020
Clear Expectations	Academic Rigor in a Thinking Curriculum	Fair and Credible Evaluations
Self-Management of Learning	Learning as Apprenticeship	Accountable Talk® Practices
Recognition of Accomplishment	Socializing Intelligence	Organizing for Effort

work to spread and scale the most promising changes. This accelerates the learning within the improvement network.

District leaders can take the following five strategic actions to build improvement networks within their district.

1. *Focus attention on shared goals pursued through common theories of action.* Tools of improvement science can support this work (root cause analysis, building a shared theory of improvement represented in some way—e.g., driver diagram).
2. *Embed improvement cycles and routines into existing collaborative structures.* Examples of ways to do that include the following:
  - Structure the work of existing PLCs to support inquiry for improvement.
  - Principals and/or assistant principals work together on issues such as chronic absenteeism and inequitable discipline practices.
  - Teachers work in PLCs to support a shift toward more ambitious forms of pedagogy, anchored in inquiry cycles.
  - Use coaches to support continuous improvement.
  - Leverage research-based best practices to accelerate improvement (e.g., partner with experts to identify evidence-based solutions to pressing problems).
  - Create cross-school learning opportunities to optimize collective learning and opportunities to spread what is being learned
3. *Leverage a practical measurement system to guide continuous improvement.* Improvement work involves data of multiple types, including short cycle data that informs action

and summative data to assess the impact of an initiative. Districts can support school engagement in continuous improvement by identifying outcome and process measures, and by building tools and routines to collect, analyze, and act on data. To promote equity and learning, leaders must be intentional about what data is brought for discussion and how it is represented. In addition, leaders must build the capacity to analyze data and lead these sensemaking routines.

4. *Prioritize strategic knowledge management.* When leaders engage in strategic knowledge management, they harvest and manage the learning of others in the organization and make this learning visible. They identify which changes lead to improvement and then facilitate the spread of the most promising ideas that emerge from the collective learning of the organization.
5. *Build district capacity to operate as an improvement network through partnerships.* While educators are reflective by nature and collaborative by design, operating as an improvement network requires new ways of working. Educators are both changing their practice while also learning to engage in improvement cycles. The data collection varies from traditional data uses and has new rhythms (especially those tied to inquiry cycles). Engaging external experts, often supported through partnerships, can support this complex work. District leaders can identify and convene partners with expertise in content knowledge relevant

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to the problem of practice, improvement science, change management, and analytics and practical measurement to build and operate the learning network.

Improvement networks can serve as a mechanism for building capacity within school districts to tackle complex systems' problems

such as chronic absenteeism, gaps in student achievement, inadequate supports for students with special needs, and teaching for conceptual understanding. Growing in popularity, these networks can serve as an alternative to rolling out district-wide initiatives that fail to recognize and respond to expected implementation challenges. Educators in improvement networks who engage in more intentional and coherent within-school and cross-school collaboration can build and spread promising interventions to solve specific problems. They can integrate necessary knowledge of implementation challenges to ensure that the changes they implement will contribute to improvement in varying contexts. Key to this work is the use of data to assess and adapt implementation through the course of an initiative. Partnerships can provide capacities necessary to design and implement improvement (research-based, high-leverage strategies; measurement and analytics; change management). Pushing beyond traditional sharing networks, improvement networks bring stakeholders with diverse forms of expertise together to support educators as they engage in inquiry cycles that can accelerate learning and drive toward improvement. ■

teachers can highlight incremental steps in student performance to increase the number of criteria evidenced in the student work. Teachers may recognize some students for creating multiple representations, others for the connections they make between representations, and still others for the mathematical reasoning they provide.

Additionally, teachers can publicly share examples of student work that meets specific criteria, which not only serves to recognize the student's accomplishment, but also provides a model from which their peers can learn. Acknowledging students for the real work of making sense of and sharing their understanding of mathematical ideas is essential to promoting active engagement.

You can read more about the use of criteria charts in the classroom in the Spotlight article. ■

*We have to keep in mind that hanging a well-designed criteria chart on the wall does not automatically mean that students will use it to manage their learning. Teachers need to refer to the criteria regularly, using it as a tool to support students as they work. In this way, the criteria provide scaffolding for students, which they use less and less as they internalize the practices and expectations.*

