

Looking at Local Districts' Capacity for Ambitious Reform

by James P. Spillane and Charles L. Thompson

Recent state and national reforms propose a pedagogy that departs fundamentally from current practice and notions about teaching, learning and subject matter. Reformers envision teaching that requires deeper knowledge of subject matter and more complex pedagogical decision-making. These reforms are more dependent on local capacity than past waves of reform.¹

The immense changes in instruction proposed by recent reforms call for a re-examination of our conception of local capacity. This article does not focus on the capacity that teachers will need to realize the reforms in their classrooms, but on the capacity of local school districts to foster such teaching. The focus is on the district's capacity to develop and carry out policies intended to support more ambitious instruction.

Recent reforms will require teachers to learn a great deal about subject matter, learning and teaching, not just acquiring more information and skills, but transforming a great deal of what most teachers now know, believe and habitually do. Most teachers will have to unlearn much of what they know as well as learn new things. This kind of learning requires sustained, honest, substantive interaction about the new ideas with other people who understand these new ideas at least a little better than they do.²

Whether teachers learn depends in some measure on the capability of district administrators and teacher leaders to construct the right sort of learning environment.³ Of course, teachers' knowledge, beliefs and experiences will influence how and what they learn from the opportunities mobilized by district leaders. Still, if teachers have few occasions to talk with others about practice and have no access to new information about instruction, their opportunities to learn will be substantially reduced.⁴

Looking at Nine Michigan Districts

Data from an 18-month investigation of instructional policymaking in nine Michigan school districts informs this discussion. Districts were selected based on their geographical location, their size and urbanicity, the social and ethnic composition of the student population, and their reputation for reform activity and innovation. Interviews in each district included: district office personnel; elementary, middle and high school principals; teachers who assumed lead roles in efforts to reform mathematics and science education; a representative of the local school board; at least one parent; and a curriculum specialist at the local intermediate district or a representative of the local mathematics and science center.

The nine Michigan districts responded in varied ways to recent mathematics and science reforms, depending in part on their capacity to learn from state policy and other sources, such as professional associations. Districts, however, learn not only from others' policies, they are makers of their own policies.⁵

Local variability was the rule. All nine districts were revising their policies to support instructional ideas more consistent with state and national standards. District topical-alignment initiatives were not always matched by substantive alignment with the core ideas⁶ of reform. These core ideas reconceptualize the content and teaching of science and mathematics to be more like doing science and mathematics in real-world settings.

In six of the nine districts, instructional reform initiatives failed to reflect several central themes of the state and national visions for mathematics and/or science education. But even there, local policymakers believed their reform initiatives were consistent with state and national reforms.

In most of the nine districts, superficial topical alignment with national and state reform documents substituted for the deeper transforming substantive alignment intended by reformers. Reform rhetoric masked significant variability across the nine districts. Local reformers understood reform ideas through their existing beliefs and knowledge. Unless they had opportunities to test these understandings, they had little reason to change their conceptions about implementing the reforms.

District leaders' capacity to teach the reforms and to help others to learn about them was uneven. Some districts were constructing rich opportunities for teachers to learn about the instructional ideas supported by their instructional policies. Other districts had simply written then shelved their new instructional policies. In the four districts where district reform initiatives were well aligned substantively with state and national proposals for mathematics and/or science, local policymakers realized that teachers had a great deal to learn, and most understood that this would take time.

Rethinking Notions of Local Capacity

The factors that make up a district's capacity to support ambitious instructional reform are highly intertwined. The features of capacity fall into three general categories: human capital, social capital, and financial resources.

Human Capital: The commitment, dispositions, and knowledge of local reformers were an important component of the district's capacity to promote ambitious instructional reform. Local policymakers who were committed to reforming mathematics and science education, who were disposed to learning about instruction in these fields, and who were knowledgeable about issues of teaching and learning in these subjects were a necessary, if not sufficient, component of the districts' capacity.

The commitment or drive of those individuals who took responsibility for instructional reform in the school district was crucial to the districts' capacity. Certain individuals' dispositions to learn about improving instruction was another important aspect of the human capital component of district capacity.

Closely related to individuals' commitments and dispositions was their substantive knowledge of the reform ideas. In the more successful districts, administrators and teacher-leaders had more sophisticated understandings of subject matter and current thinking on the teaching and learning of these sub-

jects, and what it would take to help others understand the reforms. Further, they were continuing to learn about these matters.

In each of the nine districts, at least one or two individuals were knowledgeable about the reforms, yet only four districts were enacting policies in mathematics or science that supported ideas about instruction that approximated state and national standards. The districts that were pursuing ambitious reforms mobilized individual experts to help create a critical mass of individuals with well-developed understandings of the reforms.

Social Capital: Professional networks and trusting collegial relations were instrumental to the creation of the human capital necessary to realize ambitious instructional reform. Linkages to sources of knowledge outside the school district were important in promoting learning about the substance of the mathematics and science reforms: these networks facilitated the development of local education leaders' human capital. The norms and habits of trust and collaboration among local educators within the district were a second form of social capital, which facilitated efforts to work together on instructional reform.

In districts that were promoting ambitious reform, local educators had forged ties to one or more outside agency or association that was engaged in instructional reform (such as the National or Michigan Council of Teachers of Mathematics, local universities, foundations, and the Michigan Department of Education). Most important, however, was the extent to which local educators actively participated with representatives from external agencies and the degree to which they used these networks to gain perspectives on and knowledge about reforming science or mathematics education in their districts.

Networks provided local reformers with opportunities to engage in ongoing conversations about reforming mathematics and science education. Social interactions surfaced insights, understandings, and perspectives on a subject that were not otherwise possible.⁷ Networks were especially important in smaller districts where financial and staffing resources were limited.

The mere existence of networks, however, was insufficient for ambitious instructional reform. Their effectiveness depended on whether and how well they were used by local educators, that is, it depended on the district's human capital. For some districts, these connections were shallow, ephemeral and mere formalities.

The districts that made the greatest strides in reforming their mathematics and science programs were those with a strong sense of trust among educators within the district. Trust was crucial because it facilitated conversations among local educators about instruction reform. Trust was essential to enabling educators to work together to develop a shared understanding of the reforms. These collaborations allowed more knowledgeable local educators to contribute to the knowledge of others, who in turn contributed to the knowledge of still others.

When it comes to a district's capacity for ambitious reform, human and social capital are interdependent; they develop in tandem.

Financial Resources: Staffing, time, and materials were also important. The quantity of time was important, but the key dimension was how time was allocated and used.

Adequate time was essential for local reformers to understand the substantive ideas about revising mathematics and science education. Local educators needed time to work together and with outside experts, to understand the reform ideas and to figure out what these ideas might mean for science and mathematics instruction. The most successful districts were those where educators devoted a great deal of time to figuring out what state policies and ideas from professional sources might mean for instruction.

In districts not engaged in promoting ambitious mathematics and science reforms, time was viewed in terms of meeting procedural requirements, which outweighed and pre-empted learning about substance of reform ideas.

Time as a material resource interacted with human capital—the knowledge, dispositions and commitment of the district's leaders. Time also interacted with social capital: a lack of interpersonal trust diminished the time allocated to talking about instruction. Conversations did not focus on the substance of reform in part because participants did not trust each other.

The extent to which investment in curricular materials contributed to a district's capacity for ambitious reform varied widely among districts, again depending on the districts' human and social capital. In more successful districts, materials were used to promote substantive learning for local policymakers and teachers about instruction. Curricular materials also interact with human and social capital to shape a district's capacity for ambitious reform.

Conclusion

The notion of local district capacity needs to be rethought in light of the extraordinary demands for learning imposed on teachers and others by the current wave of reform in science, mathematics and other subjects. In this article, a district's capacity to support ambitious instructional reform is viewed primarily as a capacity to learn the substantive ideas at the heart of the new reforms and to help teachers and others within the district to learn these ideas.

Learning is the process through which human capital is developed, and learning (or the development of human capital) depends critically on the development and exploitation of social capital. The value of financial resources in the capacity-building process is heavily conditioned by the district's levels of human and social capital.

Whether district leaders can teach the new ideas to their colleagues depends partly on whether they can generalize and reinterpret the new conceptions of instruction so they become useful in teaching other teachers. But it also depends on whether teachers trust them enough to communicate openly on a sustained basis and whether such patterns of collaboration are established in the district. A district where trust and norms for collaboration on matters of professional substance are high is a good learning environment. Funding, staffing, time and materials are necessary to support all of this, but without district leaders with the right commitments, connections to sources of knowledge, and trustworthiness, no amount of money, staff, time and materials will help.

Districts that are rich in human and social capital will grow richer in the human capital that ultimately matters most—the knowledge, skills and dispositions that teachers need to teach challenging subject matter effectively to a broad array of students. This presents a new version of “them that's got gets.” The superior human and social capital that districts develop, not the material resources themselves, will position districts to grow richer in capacity for reform. This new version of the widening gap between the rich and the poor—between districts that are rich in human and social capital and those that are poor in these respects—poses a major educational policy challenge. How can state and district policies build the kinds of human and social capital—the knowledge, skills, dispositions, connections and norms—that constitute capacity to support ambitious reform? This is a compelling and urgent question.

More on the Subject

This **CPRE Policy Bulletin** is based on the article, “Reconstructing Conceptions of Local Capacity: The Local Education Agency’s Capacity for Ambitious Instructional Reform,” by James P. Spillane of Northwestern University and Charles L. Thompson of Michigan State University, which was published in *Educational Evaluation and Policy Analysis*, Summer 1997, Volume 2, pp. 185-203.

Acknowledgments

CPRE Policy Bulletins are published by the Consortium for Policy Research in Education. This publication was supported by a grant (No. OERI-R308A60003) to the Consortium for Policy Research in Education (CPRE) from the National Institute on Educational Governance, Finance, Policymaking and Management, Office of Educational Research and Improvement, U.S. Department of Education. *The views expressed in this publication are those of its authors and are not necessarily shared by the U.S. Department of Education, Northwestern University, Michigan State University, CPRE, or its institutional members.*

End Notes

1. Elmore, R.F. and Fuhrman, S.H. (1994). Governing curriculum: Changing patterns in policy, politics, and practice. In R. Elmore and S. Fuhrman (Eds.), *The Governance of Curriculum: 1994 Yearbook of the Association for Supervision and Curriculum Development*, Alexandria, VA: ASCD.

2. Brown, A., and Campione, J. (1990). Communities of learning and thinking, or a context by any other name. *Human Development*, 21, 108-125. Brown J., Collins, A., and Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.

3. Spillane, J., and Jennings, N. (1997). Aligned instructional policy and ambitious pedagogy: Exploring instructional reform from the classroom perspective. *Teachers College Record*, 98(3).

4. Spillane, J. (1996). Districts matter: Local educational authorities and state instructional policy. *Educational Policy*, 10(1), 63-87.

5. *Ibid.*

6. The core ideas of reform include: conceptions of mathematics as problem-solving, reasoning, connections and communication; shifts in science from factual details and rote procedures to ideas with broad utility for explanation and predictions; increased emphasis on nature of science and scientific habits of mind, and greater attention to connections across disciplines.

7. Brown and Campione (1990); Brown, Collins and Duguid (1989).

