

# Educational Leadership: A *Multilevel Distributed* Perspective

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*The Distributed Leadership Studies*  
<http://www.distributedleadership.org>

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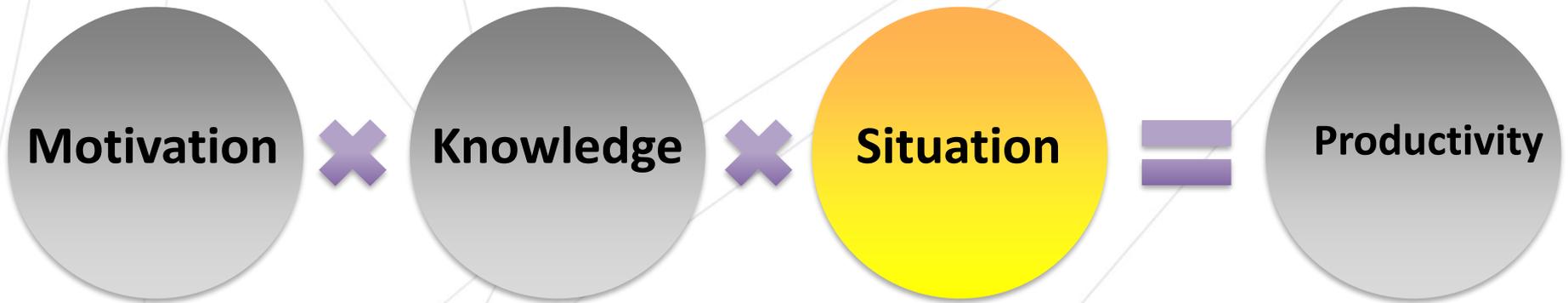
# The Sustainability Challenge

- Sustaining instructional improvement is never easy:
  - Essential resources dry up.
  - Policy and reform flux.
  - Improvement efforts never get institutionalized.
- Cultivating Conditions for ongoing knowledge development
  - Investing in social capital for ongoing human capital development

# The Argument

- Invest in developing **social capital** in schools and school systems.
- Designing & institutionalizing an **educational infrastructure** to **cultivate** and **channel** relations about teaching among staff.
- Critical challenges for **educational leadership** in this work:
  - Getting components of an educational infrastructure to **work together**
  - Attending to **multiple levels** of school systems **simultaneously**
- Taking a **multilevel distributed** perspective on educational leadership is critical for this work.

# Instructional Productivity



# Anchoring & Motivating the Work

## **SOCIAL CAPITAL**

# Social Capital

- Social capital—real or potential resources for action attained *through relationships* (Lin, 2001; Bourdieu, 1980, 2001; Coleman, 1988)
- Resources accessed through social relations including advice, information, materials, obligation, commitment and support.







# Research on Teacher Interactions

- Teachers' interactions with peers can inform their teaching practice.
- Teacher collaboration positively associated with student achievement.
- 20% of teachers' instructional productivity accounted for by interactions with more effective peers (Jackson & Bruegmann, 2009).

# Why are Social Interactions Important?

- Knowledge development key to sustaining improvement
- Advice and information building blocks of new knowledge
- Social relations are a source for advice and information
- On-the-job interactions enable transfer of advice and information

Blau, 1957; Bryk & Schneider, 2002; Coburn, 2001; Daly & Finnigan, 2010; Elmore, 1996; Eraut & Hirsh, 2007; Frank, Zhao, & Borman, 2004; Hill, 2004; Little, 2002; Smylie, 1995; Spillane, 2004

# Task 1: Knowing Multiplication

Multiply:

$$\begin{array}{r} 49 \\ \times 25 \\ \hline \end{array}$$

# Task 1: Knowing Multiplication for Teaching

How was each answer produced?

(a)

$$\begin{array}{r} 49 \\ \times 25 \\ \hline 405 \\ 108 \\ \hline 1485 \end{array}$$

(b)

$$\begin{array}{r} 49 \\ \times 25 \\ \hline 225 \\ 100 \\ \hline 325 \end{array}$$

(c)

$$\begin{array}{r} 49 \\ \times 25 \\ \hline 1250 \\ 25 \\ \hline 1275 \end{array}$$



"Collaboration would be a lot easier if it weren't  
for all those collaborators."



# The Challenge for Educational Leadership

## **DESIGNING AND DEPLOYING EDUCATIONAL INFRASTRUCTURE**

# Task 2: What is Leadership

- Watch the video clip and think about what, if any, leadership you notice. Make a note of it.
- With the person next to you, compare your notes about leadership.
- Based on your discussion, use key words and phrases to come up with a 'shared' definition of leadership.



Task One

# The Leader-Plus Aspect

## The **leader-plus** aspect:

- At times someone other than the principal takes responsibility for leadership and management tasks
- The principal often works with others when leading and managing



# Embracing the Realities

“Initially I tried to do it all. I was trying to do it all and that was impossible. You cannot be all things to all people . . . I don’t know everything about everything.”

Dr. Johnson

# The Practice Aspect



# From a Distributed Perspective...

- Leadership practice is the central and anchoring concern
- Practice is generated in the *interactions* of leaders, followers, and their situation
- Aspects of the situation define practice, *and* are defined through practice

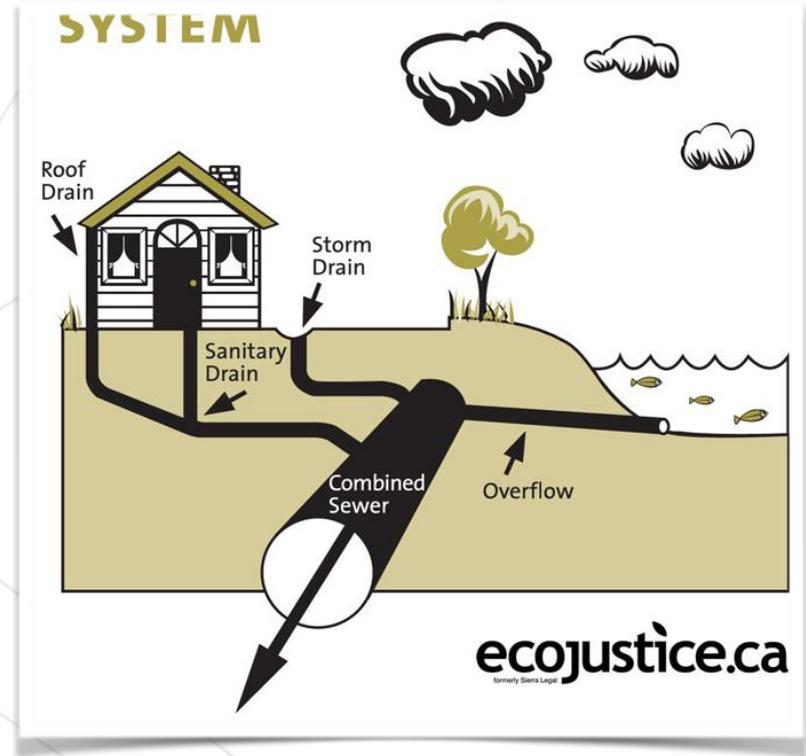
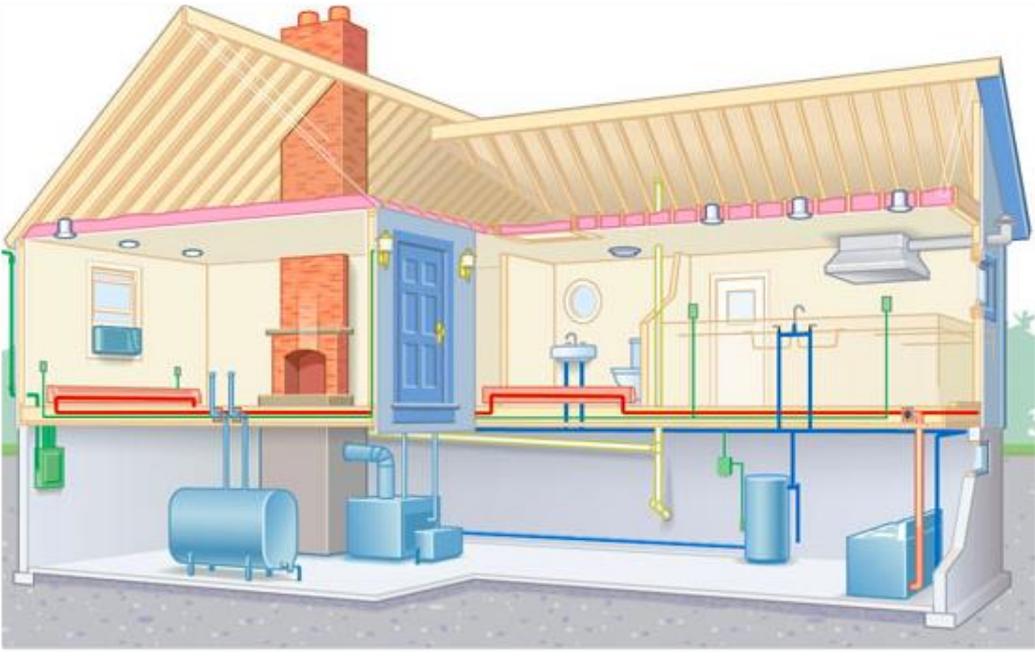
# Practice



# Dispelling Some Myths

- School principal is somehow less relevant ... NOT
- Everyone is a leader ... NOT
- The more leaders, the better ... NOT

# Infrastructure



# Educational Infrastructure

- **Educational Infrastructure** refers to structures and resources that school systems and schools mobilize to support teaching, maintain teaching quality, and lead improvement in teaching.
- Educational Infrastructure includes:
  - the instruments and tools that are the materials of instruction such as curriculum, curricular materials, and student assessments
  - the formal positions, routines, procedures, and rules for guiding professional learning, maintaining teaching quality, and enabling improvement.
  - professional norms, values, regulations, and cognitive scripts that infuse the work.

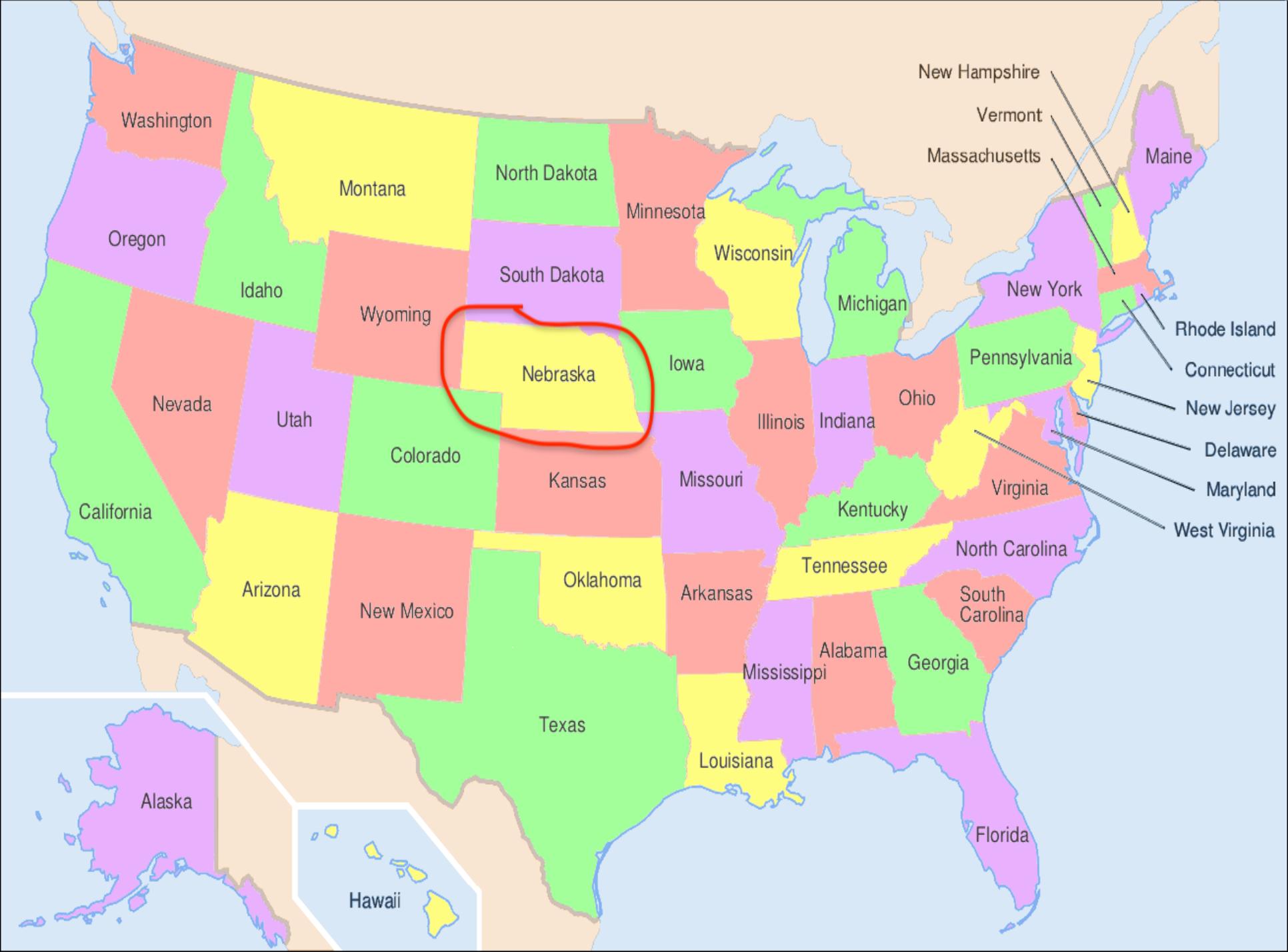
Cohen, D., Spillane, J. P., & Peurach, D. (2017). The dilemmas of educational reform. *Educational Researcher*.

Hopkins, M., Spillane, J. P., Jakopovic, P., & Heaton, R. M. (2013). Infrastructure redesign and instructional reform in mathematics: Formal structure and teacher leadership. *Elementary School Journal*, 114(2), 200-224.



# Educational Leadership

## **A CASE STUDY IN DESIGNING & DEPLOYING EDUCATIONAL INFRASTRUCTURE**



Washington

New Hampshire

Vermont

Massachusetts

Maine

Montana

North Dakota

Minnesota

Oregon

Idaho

Wyoming

South Dakota

Wisconsin

Michigan

New York

Rhode Island

Connecticut

New Jersey

Delaware

Maryland

West Virginia

Nevada

Utah

Nebraska

Iowa

Illinois

Indiana

Ohio

Pennsylvania

California

Colorado

Kansas

Missouri

Kentucky

Virginia

Arizona

New Mexico

Oklahoma

Arkansas

Tennessee

North Carolina

South Carolina

Texas

Louisiana

Mississippi

Alabama

Georgia

Florida

Alaska

Hawaii

# Teachers' Beliefs About Mathematics Teaching

- 60% of teachers more inquiry-oriented beliefs over time.
- 30% of teachers less inquiry-oriented beliefs over time.
- 10% of teachers - no change in their beliefs about mathematics instruction.

# School District Educational Infrastructure and Change at Scale: Teacher Peer Interactions and Their Beliefs About Mathematics Instruction

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Megan Hopkins

*University of California, San Diego*

Tracy M. Sweet

*University of Maryland*

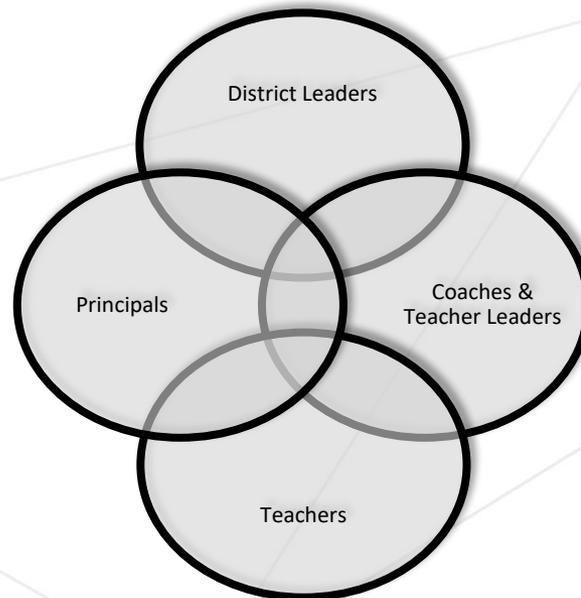
*While current reform efforts press for ambitious changes to teachers' instructional practice, teachers' instructional beliefs are also consequential in such efforts as beliefs shape teachers' instructional practice and their responses to instructional reforms. This article examines the relationship between teachers' instructional ties and their beliefs about mathematics instruction in one school district working to transform its approach to elementary mathematics education. Quantitative results show that while teachers' beliefs did not predict with whom they interacted about mathematics instruction, teachers' interactions with peers about mathematics instruction were associated with changes in their beliefs over time. Qualitative analysis confirms and extends these findings, revealing how system-level changes in the district's*

# Task 3: Why?

# The Power of Peers

- Teachers indicated more inquiry-oriented beliefs when they interacted with peers who reported more inquiry-oriented beliefs in previous year.
- Teachers' instructional beliefs about mathematics were **not** predictive of who they sought out for advice and information about mathematics.

# Communities of Practice



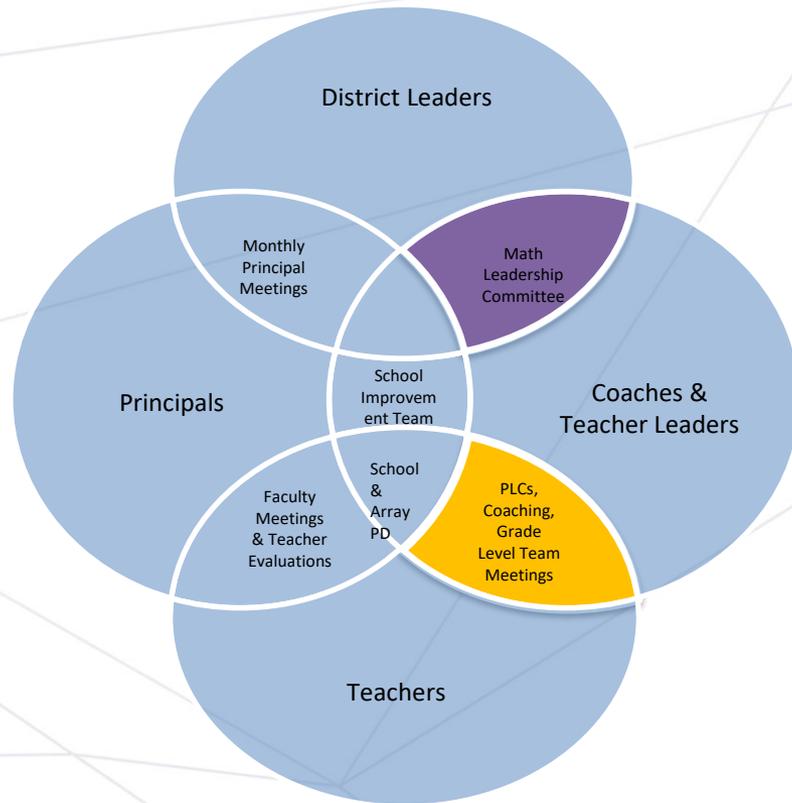
# Auburn Park: A Case of School System Educational Infrastructure Redesign

- New mathematics curriculum (Investigations) & revised student assessments
- School System Data Dashboard on student achievement
- Professional development for 'teacher leaders'
- Strategic selection of teacher leaders
- Creation of math teacher leader and coach position
- System and school organizational routines
  - System level Mathematics Leadership Committee
  - Professional Learning Communities & team meetings

# Organizational Routines Support Boundary Practices

Jodie, Special  
Education  
Teacher

We're given a lot of training in the committee that we're expected to bring back to the buildings, and so we hear about a lot of things . . . I think that deepens the understanding and kind of the light bulb goes on ...



# Boundary Practice and Boundary Spanners

Katie 6<sup>th</sup>  
grade  
teacher

I talk to . . . the other sixth grade teacher because she is on the committee . . . that's who I go to because she's kind of the lifeline to the curriculum department at central office. I'll tell her that I really struggled with [the curriculum unit].

# Coaches as Boundary Spanners

Angie, Special  
Education

[Emily] ... was my co-worker, just a third grade teacher. ... But, now that she's moved into this math facilitator position ... She's been trained in it. And, she's gone to school for it and she's a great coach. She knows a lot about math and I trust her that she has a lot of, a wealth of knowledge... She's the go-to person.

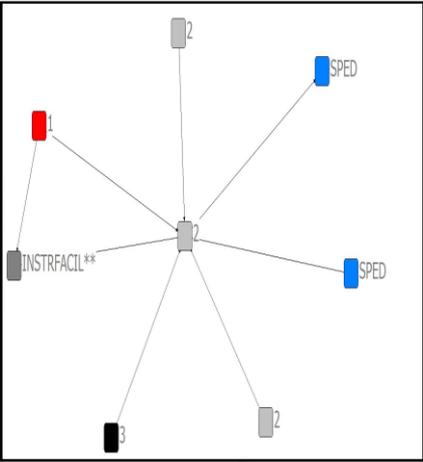


# Math Teacher Leader as Boundary Spanners

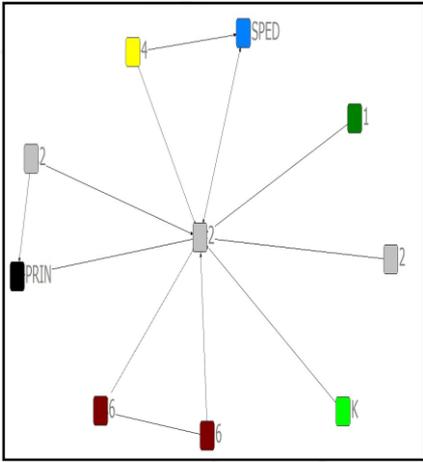
Karen (1<sup>st</sup>  
grade)

Because he's a second grade teacher....He's kind of become the math person to see because he's taken this extra training that nobody else in the building has done, and I know that he's interested in math so, he's just one that I've gone

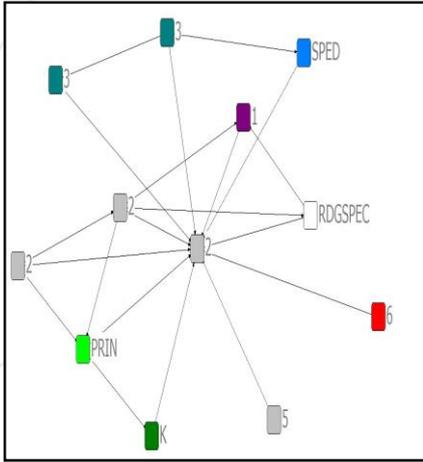
# Math Teacher Leaders as Boundary Spanners



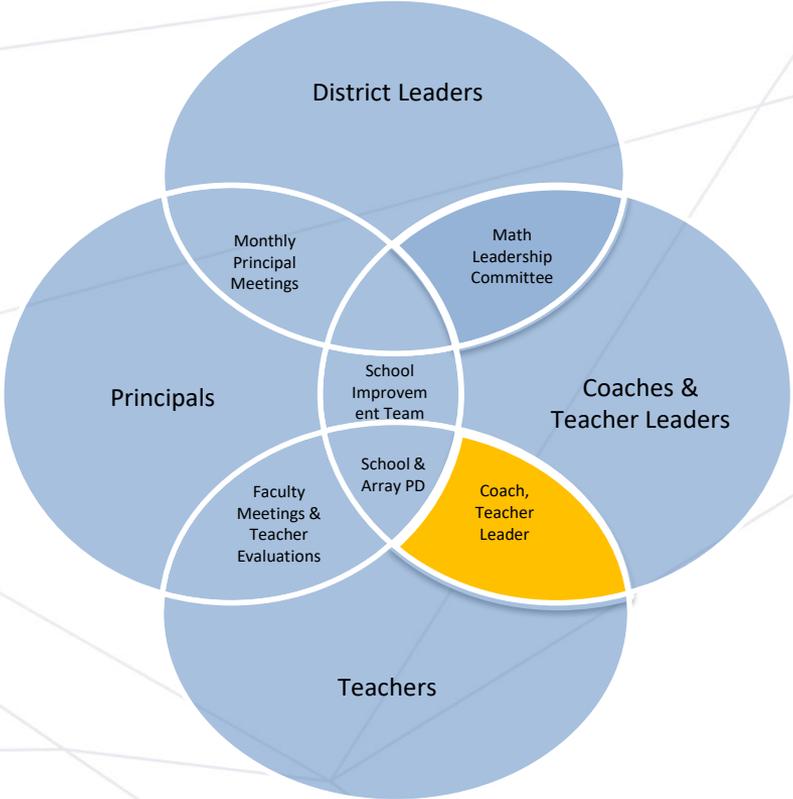
2009-10



2010-11



2011-12



# Curriculum as Boundary Object

Lucy,  
Kindergarten  
teacher

When we had just the regular curriculum, there really wasn't much to discuss. We were both on page 20. Whereas now there's so many different strategies and things people are doing to help emphasize Investigations. I definitely think there's more room for discussion than there used to be.

# Student Assessment Responses As Boundary Objects

Carmen,  
Grade 5

They're helping me think through, "Is this an appropriate response for a fifth grader?" Sometimes I think it's not, but she'll point out, "But they did this and this" and I'll have not thought about that . . . helping me analyze student responses and just show understanding.

District Leaders

Monthly  
Principal  
Meetings



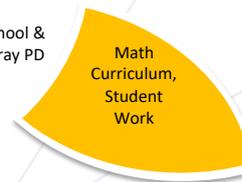
Principals

School  
Improvement  
Team

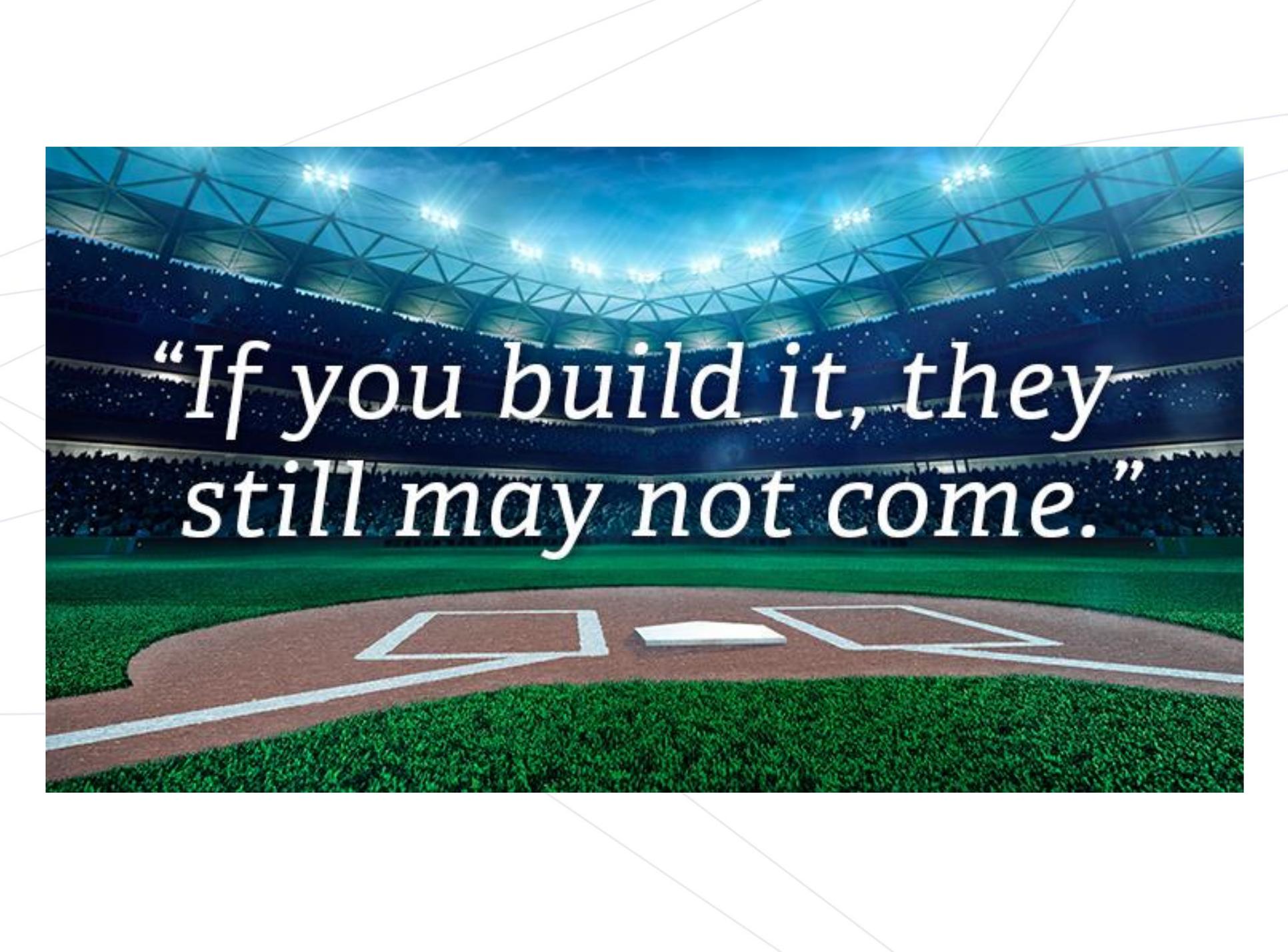
Coaches & Teacher  
Leaders

Faculty  
Meetings  
& Teacher  
Evaluations

School &  
Array PD



Teachers



*“If you build it, they  
still may not come.”*

# Bureaucratic (Control) Arrangements

Evelyn,  
Special  
Education

“It’s been in a way mandated  
by the school district. It’s kind of  
been like, ‘You will work as a  
team whether you want to or  
not. This is your team so figure  
it out.’”

# A Preliminary Summary

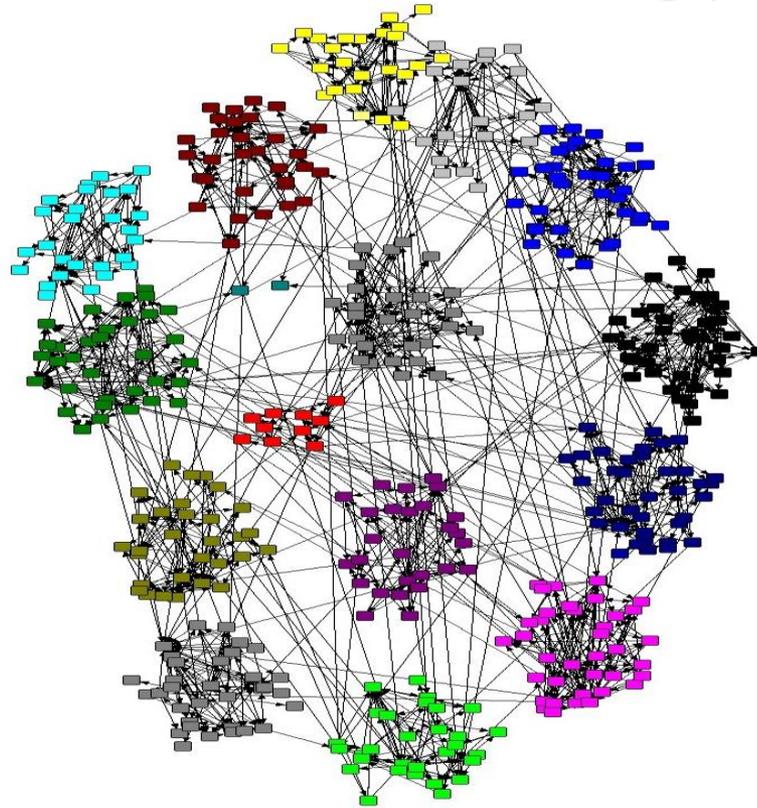
- Social relationships about teaching among educational leaders and teachers cannot be taken for granted; they must be cultivated and channeled.
- Boundary practices, boundary spanners, and boundary objects are critical to cultivating and channeling relationships for accessing and activating resources essential for teaching and its improvement.
- Educational infrastructure can be designed and deployed in ways that increase the likelihood that social relationships will contribute to developing social capital.
- Educational leadership at multiple levels is critical in this work.



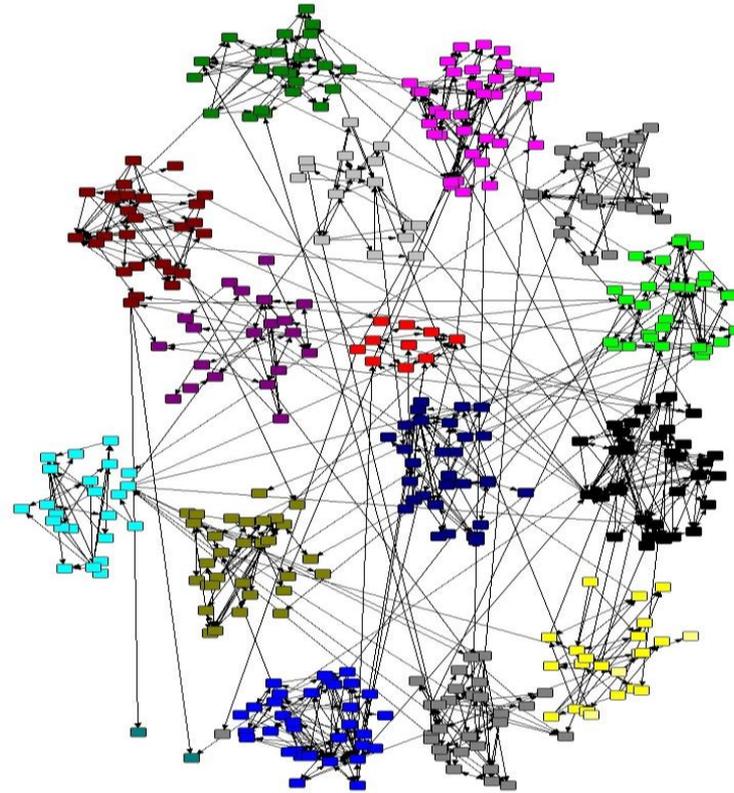


Centre Pompidou  
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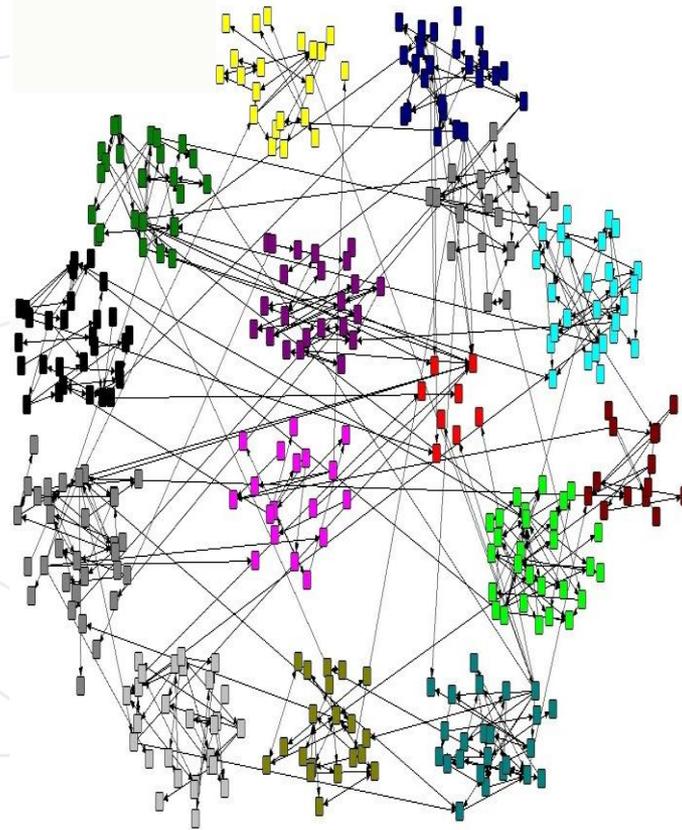
# The Subject Matters: Systemwide Interactions about English Language Arts



# The Subject Matters: Systemwide Interactions about Mathematics



# The Subject Matters: Systemwide Interactions about Science



Spillane, J. P., & Hopkins, M. (2013). Organizing for instruction in education systems and school organizations: How the subject matters. *Journal of Curriculum Studies*, 45(6), 721-747.



# Physical Infrastructure Matters

*Research Article*



## **The Elephant in the Schoolhouse: The Role of Propinquity in School Staff Interactions about Teaching**

**James P. Spillane<sup>1</sup>, Matthew Shirrell<sup>2</sup>, and Tracy Sweet<sup>3</sup>**

Sociology of Education  
XX(X) 1–23

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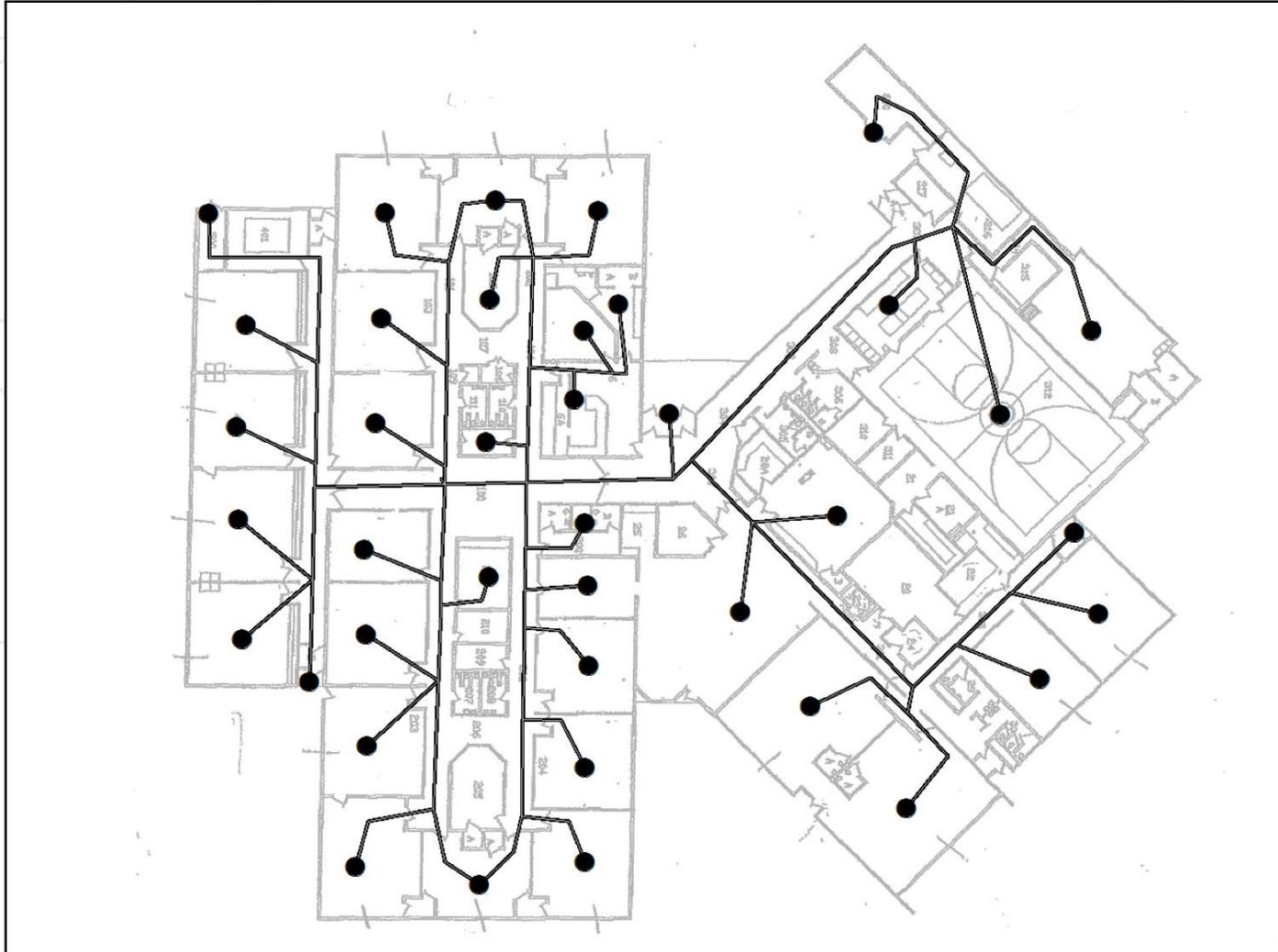
<http://soe.sagepub.com>



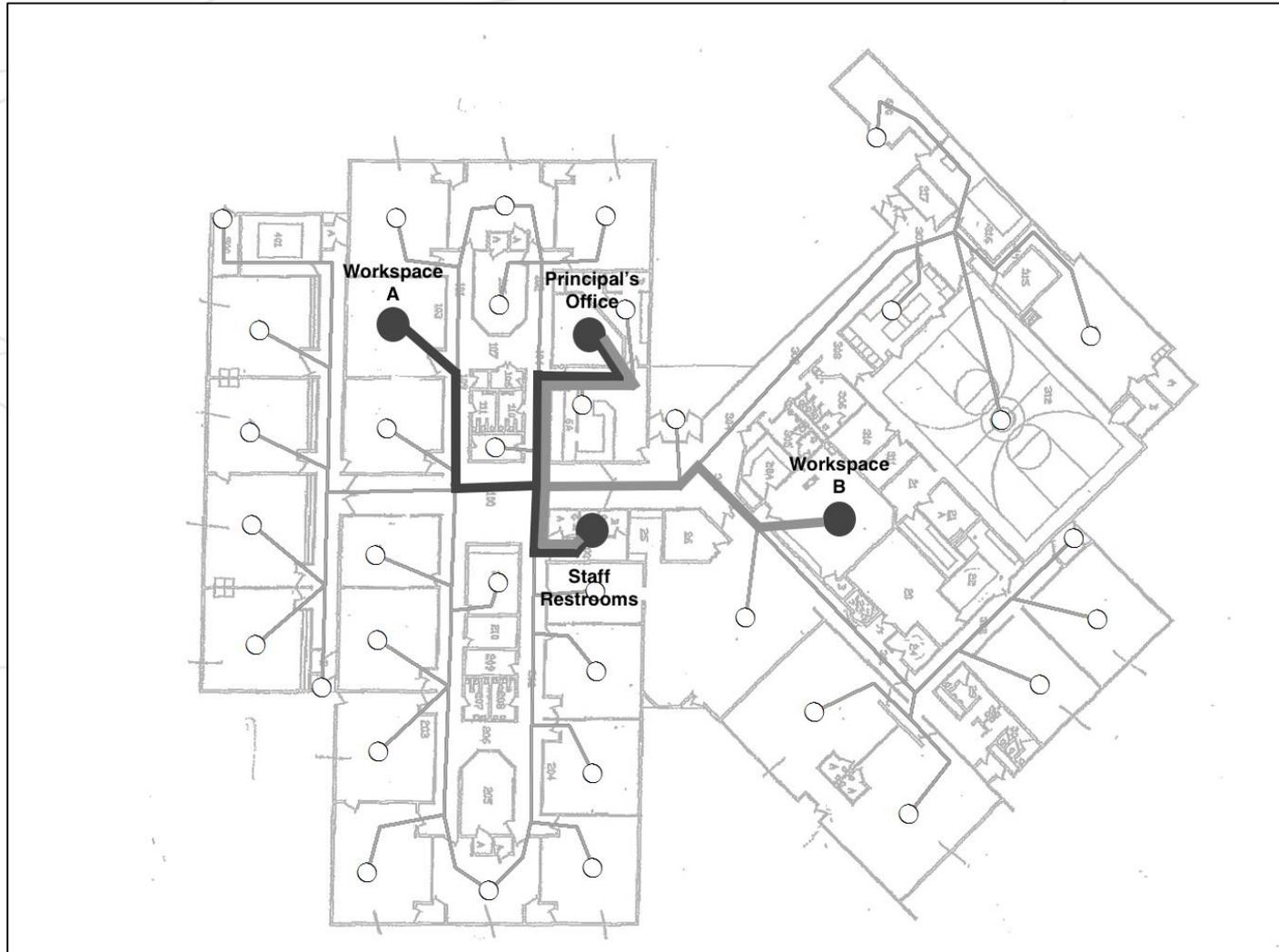
### **Abstract**

Although the physical arrangement of workspaces can both constrain and enable interactions among organizational members, sociological research in education has not extensively examined the role of physical proximity in determining work-related social ties among school staff. Using social network analysis, this article explores the relationship between physical proximity and instructional advice seeking among school staff in all 14 elementary schools in one U.S. school district over four years. Results show that school staff whose workspaces are located closer to one another, and whose paths likely cross more frequently in their day-to-day work within the school building, are more likely to talk with one another about their work. Findings argue for more careful consideration when assigning school staff to workspaces, as the physical proximity of school staff appears to play a significant role in who talks to whom about instruction.

# Measuring Walking Distance using Georeference maps



# Functional Zone Overlap: Using ArcGIS to Trace Walking Routes



# Conclusion

**EDUCATIONAL LEADERSHIP, EDUCATIONAL  
INFRASTRUCTURE, & SUSTAINABLE  
EDUCATIONAL IMPROVEMENT**

# Educational Infrastructure and Social Capital Development

- A **school system's** educational infrastructure can shape interactions among educators about teaching.
- Attention to how different educational infrastructure components **interact** in practice to enable (or not) on the job professional learning.
- Attention to **multiple levels** of the school system **simultaneously**.
- Critical role of school and system **educational leadership** in designing, implementing, and institutionalizing educational infrastructure.
- Beyond an implementation mindset; cultivating a **diagnosis** and **design mindset** in preparing and developing educational leaders.

# A Multilevel Distributed Perspective on Educational Leadership

- Leadership as **cultivating** and **channeling relationships** for **accessing** and **activating resources** to support teaching.
- Educational leadership is an **embedded** and **distributed** practice.
- Using **educational infrastructure** to coordinate cultivating and channeling relationships for accessing and activating resources.

# A Multilevel Distributed Perspective on Educational Leadership

- The work of **designing, deploying, and maintaining** an educational infrastructure extends beyond the schoolhouse.
- The work involves actors and agencies in schools, school systems, and the educational sector more broadly.

More At:

<http://www.distributedleadership.org>



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